

Title:

Conceptions of economics pre-service teachers' use of subject knowledge in teaching economics and commerce at secondary schools in Brunei Darussalam.

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In the name of God, Most Gracious, Most Merciful

In Loving Memory of:

My youngest brother,
Ahmad Zulfadli bin Haji Jawawi
(1987-2007)

My dearest grandfather,
Haji Jambol bin Mohammad Yaakub
(1922-2005)

My good friend,
Haji Asmadi bin Haji Mohd Said
(1980-2008)

'Al-Fatihah'.

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I hereby declare that this thesis is entirely my own.

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Abstract

The research focuses on how economics pre-service teachers use their subject knowledge to teach economics and commerce during their teaching practice. The research highlights the paradoxical nature of economics as a subject discipline and the influence that it can have on pre-service teachers' conceptions of teaching economics and commerce. The purpose of this research is to ascertain the importance of subject knowledge use in teaching in the Brunei context.

The research is based upon data collected from ten economics pre-service teachers in Brunei Darussalam. The methodology of this research is an interpretative approach which specifically aimed at: a) examining pre-service teachers' conceptions of economics and their conceptions of teaching, b) determining the way pre-service teachers teach economics and commerce in practice, and c) probing the conceptions of pre-service teachers in using their specialist subject knowledge when teaching economics and commerce. The data was textually analysed and the analysis reveals that the pre-service teachers find difficulty in bridging their knowledge of economics and their knowledge of pedagogy when teaching school subjects, economics and commerce.

The research calls for an integration of theory and practice. Teachers need to be made aware of their own ontological and epistemological positions for them to gain a deeper understanding of economics as subject knowledge. The research is significant for future research on teachers' development as teachers' subject knowledge is integral for their expertise in teaching.

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Abbreviations

ASEAN: Association of Southeast Asian Nations. The country members are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

BA Education: Bachelor of Arts in Education

BERA: British Educational Research Association

FBEP: Faculty of Economics, Business and Administration Policy

MCQ: Multiple Choice Questions

MIB: Malay Islamic Monarchy

MOB: Management of Business, A-level subject.

MOT 1: Methods of Teaching Part One

MOT 2: Methods of Teaching Part Two

MOT: Methods of Teaching

Q: Quantity

SHBIE: Sultan Haji Hassanal Institute of Education

TC=FC+VC: Total Cost= Fixed Cost + Variable Cost

TESL: Teaching English as a Second Language

TP: Teaching Practices

UBD: University Brunei Darussalam

Chapter 1

Introduction

As an introduction, this chapter aims to provide some background information relating to the contexts, goals and other relevant aspects of my research. The chapter begins with a section on the education system, the economics curriculum and the teacher training for economics and commerce teachers in Brunei Darussalam. The second section describes the purpose of the research and is followed by a section discussing the rationale for the research focus. The fourth section presents the aim of the research and the research questions. The fifth section describes the data analysis. The subsequent section gives an overview of the significance of this research. The last section provides an overview of the chapters in this thesis.

1.1 Background information

This section attempts to provide some background information relating to the context in which this research is conducted. The following sub-sections give, firstly, an introduction to Brunei; secondly, a description of the education system; thirdly, the economics O-level curriculum offered in schools and fourthly, a description of teacher training for economics pre-service teachers in Brunei.

1.1.1 Brunei in Brief

Brunei Darussalam, henceforth Brunei, is a small sultanate on the island of Borneo. It occupies 5,770 square kilometres on the north-west coast and it shares the island with the

two Malaysian states; Sarawak and Sabah, and the Indonesian State, Kalimantan. Brunei itself is divided into four districts, namely Brunei Muara, Tutong, Belait and Temburong. The country's capital is Bandar Seri Begawan, located in Brunei Muara District. Brunei has a total population estimated at 357,800 people (2004 consensus) consisting of mainly Malays with a mixture of Chinese and Indian communities. Expatriates and a few indigenous groups comprise a minority of the population. 'Bahasa Melayu' is the official language but English is widely spoken among the people. Brunei is ruled by the present monarch, His Majesty Sultan Haji Hassanah Bolkuah Muizzadin Waddaulah, in accordance with the 'Malay Islamic Monarchy' (M.I.B.) philosophy.

Brunei has been a 'Malay Islamic Monarchy' (M.I.B.) since the sixteenth century. M.I.B. which stands for 'Melayu Islam Beraja', is a way of life in Brunei; a philosophy which encompasses the social, cultural, political and economic realms of the country. M.I.B. is significantly a set of values incorporating Brunei Malay culture and tradition, Islamic teaching and values, and a monarchical system of government which distinguishes Brunei and its people from other Malay or Islamic nations in Southeast Asia. M.I.B. plays a key part in policy-making and in the implementation of national building programmes as well as public services and educational policy-making in Brunei.

1.1.2 The Education System in Brunei

The mission statement of the Ministry of Education in Brunei is:

“to provide a holistic education system of an international standard that comprises educational programs with a relevant and balanced curriculum which will develop students to their fullest potential”.

(Ministry of Education, 2007)

In Brunei, all primary and secondary schools adopt a common curriculum authorised by the Ministry of Education. The curriculum is the National Education System which was implemented in 1985. It incorporates the bilingual education policy where two languages, English and Malay are used as ‘the medium for teaching and learning’. The aim is to ensure that pupils attain a high degree of proficiency in both the English and Malay languages.

The provision of 12 years of education for every student consists of 7 years of primary education, including a pre-school year, (5 to 11 years old), 3 years of lower secondary (12 to 14 years old) and 2 years of upper secondary (15 to 16 years old), or vocational or technical education. In 2007, there were 123 primary schools, 30 secondary schools and 70 non-government schools (Ministry of Education Brunei Darussalam, 2007).

In primary schools, from the pre-school level to Primary 3 (5 to 8 years old), the medium for teaching and learning for all subjects is the Malay language with English as a separate

subject. The bilingual education system is then introduced in Primary 4. From this level and upwards, the pupils are taught in two languages. The Malay language is used for teaching these subjects: Malay, Islamic Religious Knowledge, Physical Education, Arts and Crafts, Civics and M.I.B. The English language is used for teaching subjects such as Science, Mathematics, Geography, History and English itself.

In the lower secondary (12-14 years old), all subjects are taught in English except for Islamic Religious Knowledge, MIB, and Arts. The compulsory and examinable subjects are the Malay Language, the English Language, Mathematics, Integrated Science, Islamic Religious Knowledge, History and Geography. Meanwhile, the optional and examinable subjects are Computer Studies, Agricultural Science, Home Science, Commercial Studies, Woodwork, and Art and Handicrafts. At the end of the third year of this lower secondary school, the students have to sit the Lower Secondary Assessment examination.

Afterwards, if they want to continue to the upper secondary (15-16 years old), students are channelled into the Cambridge General Certificate Education (GCE) O-level: Science, Arts, or Technical Streams, according to their aptitude and ability. The duration of these courses is either two or three years. Compulsory and examinable subjects for all O-level students include the Malay Language, English, and Mathematics. Students then choose a fourth compulsory subject. Arts and Technical Stream students may choose their fourth compulsory subject either from Agricultural Science, Combined Science or Human and Social Biology. Science Stream students may select two or three subjects from Biology, Chemistry or Physics.

For Art Stream students, three or four optional and examinable subjects may be selected from Geography, History, English Literature, Economics, Principles of Accounts, Commerce/Commercial Studies, Science/Combined Science/Biology, Food and Nutrition, Home Management, Fashion and Fabrics, Malay Literature, Arts and Crafts, Islamic Religious Knowledge and a third language. For Science Stream students, two or three optional and examinable subjects may be selected from Physics, Chemistry, Biology, Additional Mathematics, Geography and Economics/Principles of Accounting, History, English Literature, Malay Literature, Islamic Religious Knowledge, Arts and Handicrafts and another language.

Technical Stream Students may select not more than two subjects from Engineering Science or Physics, Agricultural Science, Food and Nutrition, Woodwork/Metalwork or Design and Technology, Geometric and Mechanical Drawing or Geometric and Building Drawing, Fashion and Fabric Design, Home Science, Geography, Commerce or Commercial Studies, Principles of Accounting, Islamic Religious Knowledge, Malay Literature and Arts and Crafts.

1.1.3 Economics O-level in the Secondary Schools Curriculum

In the national education policy in Brunei, Commercial Studies is offered as one of the optional subjects in the lower secondary schools curriculum. The general aims of Lower Secondary Commercial Studies in Brunei Darussalam are:

- i. *to give basic knowledge of the business world in general and the structure of Brunei Darussalam's trade and commerce in particular and to teach the elements of book-keeping;*
- ii. *to stimulate interest in theory and practice of business and hence encourage the desire for future participation in business; and*
- iii. *to introduce a subject which will have a link to other subjects such as Economics, Commerce and Principles of Accounts at the Upper Secondary level.*

Curriculum Development Department (2005, p. iii)

As stated above, Commercial Studies for lower secondary schools is introduced as a link to the subject of Economics at upper secondary schools. Economics is offered to the Science and Art streams students in the upper secondary level. The implication is that Economics is only offered to students supposed to be of higher ability.

Although it is stated that the provision of Economics is for the Science and Art streams students, it is not however compulsory for schools to offer it. Secondary schools have the option of deciding whether they want Economics or not. Schools have the choice of offering other 'business subjects' besides Economics, such as Principles of Accounting, Commerce and Commercial Studies.

The objectives of the Economics O-level syllabus are for candidates to:

- 1. develop a sound knowledge and understanding of economic terminology and principles and elementary economic theory.*
- 2. develop basic economic numeracy and literacy and the ability to handle simple data including graphs and diagrams.*
- 3. use the tools of economic analysis in particular situations.*
- 4. identify and discriminate between differing sources of information and distinguish between facts and value judgements in economic issues.*
- 5. employ economic skills, with reference to individuals, groups and organisations in order to understand better the world in which they live.*
- 6. participate more fully in decision-making processes, as consumers and producers and as citizens of the local, national and international community.*
- 7. develop an understanding of the economics of developed and developing nations and of the relationships between them, and to appreciate these relationships from the perspectives of both developed and developing nations.*

(Economics GCE Ordinary Level syllabus, Cambridge)

These objectives correlate with the national educational objectives, as students of economics learn to demonstrate their knowledge and understanding, make analyses, and make rational judgements and decisions. They constitute the hierarchical goals to be found in Bloom's taxonomy of educational objectives (Bloom, 1956).

Bloom's taxonomy reflects the aims of teaching economics in secondary schools. Firstly, students demonstrate their knowledge and understanding in relation to economic phenomena, facts, definitions, concepts, principles and theories. They learn to understand economic vocabulary, terminology and conventions. Secondly, students analyse situations as they select, organise and interpret data. For example, when interpreting data, they have to apply economic knowledge and understanding to recognise the patterns in such data and to deduce relationships. Thirdly, students make rational judgements and decisions as they distinguish between evidence and opinion. They need to recognise that economic theories are subject to various limitations and uncertainties. Fourthly, students evaluate the social and environmental implications of particular economic actions. Fifthly, students draw conclusions on the basis of economic enquiry, critical observation and other data. Finally, students present and communicate their conclusions in a logical and concise manner.

In summary, I contextualize the aims of teaching economics within the framework of the national goals and take into account the objectives of the economics curriculum. As the focus of this research is on the teaching of economics, I describe the use of subject knowledge pertaining to teaching in chapter 2.

1.1.4 Teacher training for economics pre-service teachers in Brunei

This section describes the teacher training for economics teachers in Brunei and includes a brief description of two courses: the methods of teaching for economics and commerce, and the teaching practice.

Pre-service teachers of economics and commerce undergo training with the four-year degree course programme: Bachelor of Arts Education (major or minor in economics). This programme prepares teachers to teach economics and commerce in secondary schools.

This programme has three major types of courses: a) Education courses offered by the Sultan Haji Hassanal Institute of Education (SHBIE), b) courses offered by other faculties which relate to pre-service teachers' future teaching specialization, such as Economics courses offered by the Faculty of Economics, Business and Administration Policy (FBEP), and c) the University required courses which are Critical Thinking, English Language and Malay Islamic Monarchy (M.I.B).

The Education courses account for approximately one-third of the total programme. Apart from the University required courses, the balance comprises courses offered by the other faculties which are intended to give students both a liberal education and knowledge of specialized subject matter which they will be required to teach in secondary schools. The Education courses are designed to provide students with an understanding of such matters as the patterns of human growth and learning and the relevance and application of modern technology to teaching and learning. In addition, this degree programme contains methods of teaching courses, specifically methods of teaching economics and commerce, and supervised teaching practice in Brunei schools.

Methods of teaching economics and commerce

The general aim of the courses is to provide the economics pre-service teachers with an understanding of economics and commerce education and the methods of teaching economics and commerce. There are two courses: 'Methods of Teaching: Secondary Economics and Commerce 1' and 'Methods of Teaching: Secondary Economics and Commerce 2'. Each of the courses is assessed by 60% coursework and 40% examination.

The first of the two courses aims to prepare pre-service teachers with the knowledge, skills and attitude to teach secondary school economics and commerce effectively and confidently. The course content focuses on topics such as the nature and scope of economics and commerce education, the Brunei secondary school economics and commerce curricula, planning for teaching and learning, approaches and strategies in teaching economics and commerce, writing lesson plans (set induction, lesson development, closure and assessment) and the elements of an effective economics/commerce lesson. The course provides pre-service teachers with practice in lesson planning and simulated teaching.

The second course aims to encourage pre-service teachers to become reflective practitioners and to develop their way of teaching. The course content includes problems, issues and challenges in economics and commerce education; reflective inquiry and teachers as researchers; and innovative strategies, group work, cooperative

learning strategies, simulations, out of classroom learning activities, and using community resources (SHBIE, 2006).

The two courses of methods of teaching for economics and commerce combined with other courses from SHBIE (the Institute of Education) and FBEP (Faculty of Business, Economics and Public Policy) help to prepare the pre-service teachers to face the final course of teachers' training: 'Teaching Practice'.

The methods courses introduce the idea that the objective of learning is important for learning and it encourages the pre-service teachers to identify powerful objectives of learning in relation to the topics they must teach (Wood, 2006). The methods courses introduce the pre-service teachers to seek different ways of understanding such as the different ways in which phenomena are understood.

Teaching Practice

Teaching practice provides school experience to pre-service teachers. The pre-service teachers have the opportunity to observe, work with and to learn from experienced teachers in schools. Teaching practice represents the final stage of the preparation of a pre-service teacher in becoming a trained teacher. The aim of teaching practice is for pre-service teachers to demonstrate their knowledge, attributes and skills of being effective, competent and reflective teachers and to function responsibly and autonomously in schools (SHBIE, 2008).

Teaching practice for pre-service teachers is for 14 weeks to be held between January and April. During these 14 weeks, the pre-service teachers are required to observe, discuss, plan, teach, assess, evaluate and reflect in their allocated schools. They are given a minimum of ten to twelve hours teaching per week. The pre-service teachers are supervised and guided by, largely, cooperating teachers selected by the schools but also by tutors from the university.

1.2 Purpose and Focus of Research

The purpose of this research is to determine the importance of subject knowledge use in teaching. The rationale for this interest in subject knowledge and teaching is due to my defining role as a teacher educator at the University of Brunei Darussalam (UBD). My defining role involves teaching pre-service teachers of economics education the methods of teaching their 'specialised' subject which is economics. These pre-service teachers are enrolled on the degree programme of BA Education (Bachelor of Arts in Education). My work as a tutor at the university has given me the experience of supervising pre-service teachers during their teaching practice. It is my experience from observation of their teaching practice, that these pre-service teachers use a wide range of approaches to teach the specific subject knowledge of economics to their students in real classrooms. However, my aim for this research is to reveal that the use of teaching strategies by pre-service teachers is only effective when they have a sound understanding of subject knowledge.

The focus of my research is on pre-service teachers' use of economic knowledge during teaching practice. This teaching practice, a core requirement module, must be undertaken by all pre-service teachers. During this teaching practice, pre-service teachers of economics are required by the school to teach economics and commerce. Therefore, the focus of my research is to investigate pre-service teachers' understanding of economic content as they carry out the learning activities in the classroom; to ascertain what economics pre-service teachers know about the content and (to link to above) what they want the students to learn about the content, and how the content is taught to the students.

1.3 Aims and Research Questions

The aim of my research is to study the conceptions of pre-service teachers' in the use of their subject knowledge of economics for teaching secondary school subjects of economics and commerce. My research studies the extent to which there is a relationship between the pre-service teachers' conceptions of subject knowledge and the way they teach the school subjects. My research also aims to understand the pre-service teachers' experience of learning to teach their subject knowledge during teaching practice.

My main research question is:

How do pre-service teachers use their subject knowledge of economics to teach secondary school subjects of economics and commerce in Brunei?

My research question is guided by three operational research questions:

- a) What is the relationship between pre-service teachers' conception of subject knowledge and how they want to teach economics and commerce?
- b) How do pre-service teachers teach economics and commerce in practice?
- c) What are the conceptions of pre-service teachers in using their specialist subject knowledge when teaching economics and commerce?

The first operational question explores the way the pre-service teachers describe economics as subject knowledge and the teaching methods that they wish to use in their classrooms. Findings in response to this question are presented in Chapter 4. The second operational question addresses the way the pre-service teachers teach economics and commerce in the classroom. This question is addressed in Chapter 5. The third operational question explores the pre-service teachers' opinions as they reflected upon their experience of teaching economics and commerce. Findings to this question are addressed in Chapter 6.

The findings from chapter 4, 5 and 6 are presented together in Chapter 7. The ethics of this research are discussed in Chapter 3.

1.4 Data collection

My research adopts an interpretative methodology with the underlying assumptions of a transcendental realist stance. For this research, I have used a case study approach in order to explore the way pre-service teachers represent their subject knowledge for teaching. Data is collected from interviews, lesson observations and documents. In this research, I need to be 'reflective' to understand and make sense of the relationship between subject knowledge and its use in teaching. The data collected from the interviews and lesson observations help to sort and make sense of pre-service teachers' ways of representing their subject knowledge to their pupils. The instruments, interviews and observations have been piloted (see Appendix 1) and later modified to correlate my research questions (Chapter 3). Data is collected using the instruments in three different research stages (Chapter 3).

1.5 Data analysis

I analyse the data using a grounded theory approach. Grounded theory is a systematic generation of theory from data that contains both inductive and deductive thinking (Glaser & Strauss, 1967). Grounded theory explores the three domains of transcendental realism (Bhaskar, 1979): the real, the actual and the empirical. Grounded theory also analyses data which aims to address questions of epistemology and ontology in transcendental realism: "*What is the nature of the reality which we are attempting to find out about? How can we know it? And what are the implications of answers to these first two questions for our choice of methods if we engage in empirical research?*" (Scott, 2000, p.16).

In my research, I have used the four stages of analysis in grounded theory (Glaser & Strauss, 1967): codes, concepts, categories and theory. The data collected from my research design: ‘knowledge-for-practice’, ‘knowledge-in-practice’ and ‘knowledge-of-practice’ were analysed in the above four stages (see Chapter 3).

1.6 Significance of Research

Based on the purposes and aims of research, this research is significant in a number of ways and these are:

- a) To provide relevant information and recommendations to the training of pre-service teachers – in Brunei, the pre-service teachers are required to take courses in their teaching disciplines; economics pre-service teachers take economics content courses. While these courses are considered essential to the education of teachers, there are seldom explicit connections made between the coursework specific to teacher education and the coursework in content areas. As a result, in pre-service education, subject knowledge and pedagogy are treated as separate domains.

- b) To provide an insight on the nature of economics as subject knowledge and its correlation with school subjects - my premise is that it is dangerous to assume that subject knowledge expertise is enough for pre-service teachers to teach school subjects: economics and commerce.

- c) To contribute to the literature pertaining to subject knowledge, pedagogy, learning and the experience of pre-service teachers in learning to teach - my research examines the use of pre-service teachers' subject knowledge in teaching economics and commerce and my research is designed to explore their conceptions of experiencing teaching, their understanding of learning and their challenges in teaching and learning.

1.7 Overview of Chapters

In my thesis, there are seven chapters.

Chapter 2 presents a review of the literature divided into five sections. The first section introduces the chapter (2.1). The second section is concerned with subject knowledge and pedagogy (2.2). This section introduces teachers' knowledge and discusses the importance of teachers' subject knowledge and beliefs. It then relates this to the way in which teachers use their subject knowledge for teaching and teachers' reflective practice. Next, the third section of the literature review also examines economics teaching with particular emphasis on pre-service teachers (2.3). In this section, the relationship between pedagogical knowledge with the subject economics and the relationship of pre-service teachers and teaching are explored. The fourth section describes the cultural context: teaching a subject in a second language (2.4). The final section concludes this chapter (2.5).

Chapter 3 discusses the methodology employed in this research. The chapter consists of discussions of the philosophical assumptions underpinning this research (3.2, and 3.3), the conceptual framework (3.4), the research design (3.5), instruments used (3.6), the participants (3.7), a case study approach (3.8), analysis of data (3.9), validity and reliability of this research (3.10), the consideration of ethical issues (3.11) and conclusion for this chapter (3.12).

Chapters 4, 5 and 6 present the findings for the research questions which aim to explore the use of subject knowledge by pre-service teachers in teaching. Chapter 7 discusses and interprets the findings of chapters 4, 5, and 6. Chapter 7 also presents the implications of the findings and finally, concludes the discussion for this research.

Chapter 2

Literature Review

2.1 Introduction

In this chapter, I explore the relationship between subject knowledge and teaching. The first section explores teachers' knowledge and discusses the importance of teachers' subject knowledge and beliefs. I then examine the way in which teachers use their subject knowledge for teaching. The second section of the literature review examines economics teaching with particular emphasis on pre-service teachers. In this section, I briefly discuss the nature of economics and explore the relationship between pedagogical knowledge with the subject economics and the experiences of pre-service teachers and their teaching. In the last section, I explore the interplay of culture and language in teaching and learning and expand the argument that understanding their influence on education can help improve the quality of teaching and learning.

2.2 Subject Knowledge and Teaching

2.2.1 Background

What is good teaching? In the US, Dunkin & Biddle (1974) had attempted to define good teaching by exploring the relationship between teacher knowledge and student achievement. This type of research was described as the 'presage-product' where the researchers have argued that good teaching could be measured systematically between the number and type of courses that teachers took, their grade point averages, their scores

on various standardized tests and their pupils' achievement (Druva & Anderson, 1983; Dunkin & Biddle, 1974). However, Byrne (1983) found little or no relationship between teachers' academic performance in their subjects and pupils' achievement. Wilson, Shulman & Richert (1987) argue that the presage-product research did not provide a clear understanding of good teaching as its definition of subject matter knowledge was often limited to factual knowledge and this was inadequate in providing understanding about good teaching. Despite the arguments against the presage-product research, Ferguson & Womack (1993) still pursued their research in the belief that there is a relationship between teachers' academic performance and student achievement.

In 1986, Shulman refocused the attention of researchers on teachers' subject matter understanding. He argued that the missing paradigm of research on teachers' knowledge was the study of subject matter content and its interaction with pedagogy (Shulman, 1986a, 1986b, 1987). In his papers, 'Those who understand: Knowledge growth in teaching' and 'Knowledge and teaching: Foundations of the new reform', Shulman articulated a relation between content knowledge and pedagogical knowledge. He argued that a distinctive form of teachers' professional knowledge existed and named this special knowledge of teachers as 'pedagogical content knowledge' (or also known as PCK). He argued that pedagogical content knowledge was a particular form of content knowledge that represented the aspects of content most relevant to pedagogy (Shulman, 1986b). He suggested that teachers' knowledge consisted of an amalgam of knowledge bases essential for good teaching. The consequences of his claim have initiated researchers to investigate the interaction of subject knowledge and pedagogy.

2.2.2 Teachers' Knowledge

Fenstermacher (1994) categorizes teachers' knowledge as formal and practical knowledge. He explains that formal knowledge is the process-product studies on effective teaching while practical knowledge is practical, personal, situated, local, relational, and tacit knowledge. Furthermore, he argues that both kinds of knowledge are important for understanding how teachers learn to teach.

Huberman (1994) argues the importance of teachers' craft knowledge in teaching. He identifies craft knowledge as largely idiosyncratic and non-theoretical. He argues that teachers' use of craft knowledge comes more from their own continual tinkering which can improve their teaching (ibid). In contrast, Jackson (1968) criticizes teachers' craft knowledge because teachers use intuition rather than analyse their knowledge. Teachers also tend to use language that is conceptually simple (ibid). However, Huberman (1994) argues that teachers' craft knowledge is important as teachers acquire their craft knowledge through experience.

Kennedy (2002) offers two other forms of teachers' knowledge besides craft knowledge that are relevant to teaching: systematic knowledge and prescriptive knowledge. Systematic knowledge is acquired mainly through colleges and universities, research articles, journals and professional associations, and tends to be more theoretical, codified and abstract. On the other hand, prescriptive knowledge is acquired through institutional policies and tends to consist of 'should' and 'ought' statements. Kennedy (ibid) argues that prescriptive knowledge is more codified than craft knowledge but is less theoretical

than systematic knowledge. She has examined the role of each kind of knowledge that appears to play a part in the improvement of teachers' practice. In her study of 45 teachers' lessons and interviews concerning these lessons, she found that even though teachers intended to pursue a particular course of action, they adjusted their specific moves to accommodate their interpretation of specific situations. Kennedy (2002) argues that one kind of knowledge does not necessarily invalidate either of the other kinds of knowledge. Therefore, she proposes the need for an integrated theory that should acknowledge and examine all sources of knowledge bases that contribute to teaching practice (ibid).

Shulman (1986a; 1987) emphasizes the importance of teachers' subject matter understanding in teachers' knowledge. He defines teachers' knowledge as one that consists of the knowledge bases of subject matter knowledge, pedagogical knowledge, and curricular knowledge. He further expands the definition of teachers' content knowledge as subsuming subject matter knowledge and curricular knowledge. He identifies a minimum of seven knowledge bases needed for teaching: content knowledge, pedagogical knowledge, curricular knowledge, pedagogical content knowledge, knowledge of students, knowledge of context, and knowledge of educational goals (Shulman, 1986b). Hence, teachers' subject knowledge should link teachers' knowledge and their teaching strategies with their students' learning and beliefs (Grossman, 1990). However, Sockett (1987) argues that Shulman's strategy is flawed for three reasons:

“...first, in the relative lack of attention to context, as opposed to content; second, in the inadequacy of its language of description of the moral framework of

teaching; and third, in the lack of sophistication in its account of the relation between reason and action in teaching. Each of these weaknesses, it will be argued, arises from the fact that Shulman's analysis appears assessment-driven."

(Socket, 1987, p. 208)

Although McEwan & Bull (1991) acknowledge that Shulman's work made a useful contribution to understandings of subject knowledge in teaching, they argue that *Shulman's distinction between subject knowledge and pedagogical knowledge was 'unnecessary' and that it led to research questions about the transformation from one kind of knowledge to another that were 'misconceived'"* (Mc Ewan & Bull, 1991, p. 318).

They argue that there is no epistemological difference between subject knowledge and pedagogical content knowledge. Both categories of knowledge are developed in relation to 'webs of belief':

"Scholars must be concerned with the comprehensibility and teachability of their assertions, that is, with whether those 'representations' can find a meaningful place in other's webs of belief. In other words, the justification of scholarly knowledge is inherently a pedagogical task, and successful scholars must engage in the sort of pedagogical thinking supposed by Shulman to be a hallmark of pedagogic reasoning".

(ibid, p.324)

In other words, they (ibid) are suggesting that both categories of teachers' knowledge are developed in relation to 'a community of practice'.

In relation to McEwan & Bull's (1991) arguments, Lampert (1984) proposes that teachers' knowledge for classroom practice must be context-specific. Teachers' knowledge must be adapted to their specific students and the demands of their schools (ibid). In other words, teachers must draw upon their understanding of the particular contexts in which they teach to adapt their more general knowledge to specific school settings and individual students (Grossman, 1990). Therefore, teachers' knowledge of context includes knowledge of the schools including the school culture, departmental guidelines, and other contextual factors at the school level that affect teaching and knowledge of specific students and communities including the students' backgrounds, families, particular strengths, weakness, and interests (ibid).

However, as a follow-up of Shulman's (1986a, 1987) argument, Grossman (1990) offers another form of teachers' knowledge: teachers' general pedagogical knowledge for teaching. She argues that teachers' general pedagogical knowledge is a body of 'general knowledge', 'beliefs', and 'skills' related to teaching. General pedagogical knowledge has been the focus of most research on teaching: knowledge and beliefs concerning learning and learners; knowledge of general principles of 'teaching', such as academic learning time (Carroll, 1963); wait-time (Rowe, 1974) or small-group 'teaching' (Cohen, 1986); knowledge and skills related to classroom management (Doyle, 1986); and knowledge and beliefs about the aims and purposes of education.

However, there is no agreement in the literature of what expert teaching might be and the kinds of knowledge that teachers need to possess (Turner-Bisset, 2001). Kyriacou (1997, p.120) proposes ten characteristics of effective teaching:

- Clarity of the teachers' explanations and directions
- Establishing a task-oriented classroom environment
- Making use of a variety of learning activities
- Establishing and maintaining momentum and pace for the lesson
- Encouraging pupils' participation and getting all pupils involved
- Monitoring pupils' progress and attending quickly to pupils' needs
- Delivering a well-structured and well-organised lesson
- Providing pupils with positive and constructive feedback
- Ensuring coverage of the learning objectives
- Making good use of questioning techniques

It is my argument that to teach, teachers must hold deep and highly structured content knowledge that can be accessed flexibly and efficiently for the purpose of teaching. Teachers will need to understand the structure and nature of their discipline, have skill in selecting and translating essential content into meaningful learning activities, maintain fluency in the discourse of the community, and recognize and highlight the applications of the field to the lives of their students (Sternberg & Horvath, 1995; Talbert et al., 1993). It is this pedagogical understanding of subject matter that distinguishes between the

subject expert and the experienced teacher, especially at the secondary school level. Therefore it becomes important both to conceptualize pedagogical content knowledge in greater detail and to understand its sources (Shulman, 1986b; Wilson, S.M. & Wineburg, 1988).

2.2.3 Teachers' subject knowledge for teaching

Gess-Newsome (1999) who has extended the work of Grossman (1990), argues that subject knowledge beliefs should be represented in broad but overlapping categories; *conceptual knowledge, nature of the discipline, content-specific orientations to teaching, and contextual influences on curricular implementation*. This section will be informed by examples of research that exists in other disciplines; mathematics, English, social studies, and science. Examples of data research in this review are used to emphasize the argument that there is a relation between teachers' subject knowledge and classroom practice.

Conceptual knowledge

Gess-Newsome (1999) defines conceptual knowledge as the facts, concepts, principles, and procedures that are typically taught in secondary school classrooms. Conceptual knowledge is assumed to be interconnected in nature, impacted by related beliefs, socially constructed, and personally integrated (Alexander, Schallert, & Hare, 1991).

Even (1993) surveys 152 pre-service secondary mathematics teachers in order to investigate the impact of conceptual knowledge of teachers' mathematics knowledge and

beliefs on classroom practice. He finds that in simulated teaching situations, the pre-service teachers without such rich understandings overemphasize procedural knowledge without concern for the limited conceptual student understandings. In addition, Ball (1991) finds that secondary pre-service teachers have poor mathematical understandings and rely heavily on rules and procedures when teaching fractions. However, Ball (1991) argues that although they lack explicit and connected conceptual understandings of fractions, they could successfully select and use algorithms without understanding the underlying mathematical concepts. Pre-service teachers thought that learning mathematics is synonymous with remembering rules (ibid). In conclusion, both studies have highlighted two important points about pre-service teachers' mathematical conceptual knowledge. First, in both studies, it was found that pre-service teachers have emphasized teaching mathematical rules over promoting conceptual understanding among their students. Their personal experience as mathematics students have influenced the way they teach (Ball, 1991). Second, both studies show that pre-service teachers have compartmentalized and fragmented knowledge of mathematics. In consequence, Ball (1991) argues that pre-service teachers' fragmented knowledge can seriously misrepresent the logic and conceptual organization of the discipline to students.

In another research of pre-service teachers, Brookhart & Freeman (1992) learn that pre-service teachers with a bachelor's degree in an academic area, have high levels of confidence in their subject knowledge, yet they do not understand the content that they are to teach. Brookhart & Freeman (1992) argue that most pre-service teachers' subject knowledge is fragmented, compartmentalized, and poorly organized. In consequence,

pre-service teachers find difficulties in accessing their subject knowledge efficiently when teaching (Brookhart & Freeman, 1992).

Talbert, et al. (1993) argue that many pre-service teachers, when teaching algorithms, are forced to rely on teaching the facts that they remember from their own school days. As a result, their low levels of subject knowledge have affected their teaching in a number of ways. Firstly, when planning for teaching, pre-service teachers overly rely on the textbook as opposed to students' understanding. Secondly, learning is equated with remembering information, and thus reinforcing the belief in and use of algorithmic and fact-based knowledge. Such superficial content coverage limits students' conceptual understanding, misrepresents the structure of the discipline, and prevents the construction of a strong conceptual knowledge base, thus limits students' future learning opportunities (Talbert et al., 1993). Lastly, pre-service teachers ask mostly lower level questions and their activities are constrained by strict procedural rules. Pre-service teachers are managing students' work rather than monitoring students' understanding (Hollon, Roth, & Anderson, 1991). As a result, pre-service teachers are unable to spontaneously connect student comments and questions back to the formal lesson and often reject student answers (ibid).

Gess-Newsome (1999) argues that if pre-service teachers have strong conceptual knowledge, they will have more detailed knowledge of the topic, more connections and

relationships to other topics, and can easily draw upon this knowledge in teaching and problem solving situations. She argues that if this happens, then;

“Lesson planning starts with knowledge of the student and draws upon teaching activities and content representations previously found to be effective in achieving lesson goals. Texts and approved curriculum materials are used infrequently, with classroom teaching moving well beyond the text. Lessons are characterized by well-organized lectures and activities that emphasize the synthesis of information, challenge students with high level questioning, and allow students to actively explore topics”.

(Gess-Newsome, 1999. p. 63)

Therefore, early experience on the learning of rules and facts often discourages learning for meaning (Hiebert & Carpenter, 1992). Yet, many common courses in secondary schools and universities reveal teaching of this type (Gess-Newsome, 1999). As a result, pre-service teachers may have pre-existing inclinations to teach factual and procedural knowledge rather than conceptual understanding (ibid). Morine-Dersheimer (1989), however, found that pre-service teachers redefine and restructure subject matter understandings after teaching a lesson. Therefore, teaching itself may be a powerful tool in changing the subject matter knowledge and beliefs of teachers, moving knowledge from passive reception to active processing, and supporting the idea that knowledge must be used in order for it to be internalized and transformed (Eraut, 1994). Yet, learning from experience can be difficult to predict and may not always result in best practice (Buchmann & Schwille, 1983; Eraut, 1994; Gess-Newsome, 1999).

Nature of the Discipline

Gess-Newsome (1999) identifies the nature of a discipline as that includes a teacher's understanding of the history, philosophy, and sociology of the discipline, as well as the questions asked within the discipline, the modes of inquiry used, the nature of discourse, and the canons of evidence that characterize accepted answers. Lederman (1992) argues that the nature of the discipline refers to the values and assumptions inherent to the development of scientific disciplinary knowledge. Without knowledge of the structures of a discipline, teachers can misrepresent both the content and the nature of the discipline itself (Grossman, 1990).

Schwab (1978) argues that disciplines can be characterized by their substantive and syntactic elements. Substantial elements include the conceptual knowledge and paradigms that guide an investigation, whereas syntactical structures include evidence and proof used in a field of inquiry (Schwab, 1978). The degree to which teachers possess knowledge of substantive and syntactic structures of their fields can influence how they represent their discipline to students (Wilson & Wineburg, 1988). However, Carlsen (1991) and Phillips (1983) argue that the distinctions between substantive and syntactical elements of a discipline are vague.

In the discipline of social studies, Wilson and Wineburg (1988) have compared the teaching by four novice social studies teachers in relation to the nature of history as a discipline. All the four novice teachers have to teach History, yet, of the four, only one

holds a degree in American History. Others hold a Bachelor's degree in anthropology, economics and political science. Wilson and Wineburg (1988) argue that for the non-history majors (anthropology, economics and political science), history is seen as a field of static facts – a belief that has developed during their experiences as secondary school students and has not been removed during their college education. Furthermore, Wilson and Wineburg (1988) describe that teachers' understandings of foundational historical themes are related to the background of knowledge of the teachers, often influenced by their disciplinary roots.

Wilson & Wineburg (1988) highlight four important findings in their studies of subject knowledge use by novice teachers in teaching history. Firstly, none of the teachers hold a sufficiently broad understanding of history, forcing each teacher to learn new content while teaching. Secondly, since the novice teachers are unaware of the broad structures of history, they often overgeneralized the knowledge that they have. Thirdly, the lack of understanding of the disciplinary nature of history has prevented the novice teachers from learning new content. For example, without recognizing that history is based on interpretation, few novices have sought alternative interpretations to present to their students. Fourthly, the goals of the novice teachers for their students' learning are influenced by their background knowledge. As a consequence, Wilson & Wineburg (1988) argue that only high knowledge teachers would create enthusiasm and empower their students with the knowledge they are teaching whereas low knowledge teachers would rely on the textbook and quickly move through the content.

This section of the literature review has described the findings of research on novice teachers' understandings about the nature of the discipline. Though the research examples are limited to social studies, the review argues that the findings have shown that novice teachers, without understandings of the nature of their disciplines, struggle to learn their content and maintain the flow of classroom life. These concerns diminish their ability or opportunity to consider issues related to the nature of their subject discipline in either pre-active or post-active teaching.

These findings are particularly relevant to me as a teacher educator in economics education as pre-service teachers need to have an understanding of the nature of economics in order for them to teach the content to their students. For example, only with an understanding of economic theories, can the pre-service teachers develop an economic analysis that guides students' learning. Hence, the pre-service teachers need to understand broadly the structures of economics so that they can relate their understanding to what they are teaching in the classroom.

Content-Specific Orientations to Teaching

Content-specific teaching orientations are defined by Grossman (1990), Grossman et al. (1989), and Wilson & Wineburg (1988) as teachers' beliefs about teaching and learning that are grounded in a framework used for organizing knowledge in their field. Gess-Newsome (1999) adds that a teacher's orientation towards his/her content is a complex combination of content knowledge, beliefs, and values that have the potential to impact on what and how students learn about the content. The studies that are reviewed in this

section examine secondary teachers' content-specific orientations across the disciplines of science, mathematics, English, and social studies and their impact on teaching.

An example of resistance to changes in content-specific teaching orientations is found in Powell (1994). He has described a pre-service teacher who enters the teaching profession after a career in science (ibid). This pre-service teacher has a strong academic orientation towards the teaching and learning of his contents that contrast to his cooperating teacher's more effective orientation. However, the pre-service teacher is observed as embracing his cooperating teacher's orientation instead of testing his own personal orientation (Powell, 1994). This action by the pre-service teacher may be described as strategic compliance by Lacey (1977). Strategic compliance has been noted in a number of studies on teacher change, particularly participation in university-based programs (Rodriguez, 1993). Powell (1994) argues that strategic compliance by pre-service teachers will make them miss the opportunity to test the success of their own beliefs and hence miss an opportunity for growth.

Gudmundsdottir (1990) argues that the orientations of English and social studies teachers are influenced by their conceptions of student needs, use of the text, selection of teaching methods, presentation of the content, and questioning patterns. Social studies teachers' orientations are based on differences in disciplinary preparation, with the views of teachers with an interdisciplinary background differing from individuals with a specialization in a single content area, such as history (Gudmundsdottir, 1991). He argues that having an orientation is necessary but not sufficient for teaching excellence.

For example, novices may have content knowledge, but they often lack a model structured for pedagogical purposes (Gudmundsdottir, 1991). Consequently, he argues that novice teachers are able to conceptualize only units or parts of units as opposed to courses of study (ibid).

This section argues that beliefs exert a powerful impact on the outcomes of teaching. Teachers develop implicit content-specific orientations early in their careers, maybe as early as their own secondary school experiences. Teachers' content-specific orientations influence how they perceive the teaching and learning of their content and their impact on classroom practice. Unfortunately, the findings also illustrate that many teachers' orientations reinforce a view of teachers as dispensers of knowledge and of learning as remembering. For example, when teachers have weak orientations, they appear to adopt the orientations in embedded texts, curriculum guides, or university course work. Once established, orientations act as "*gate keepers for the acceptance or rejection of new content-specific orientation*" (Gess-Newsome, 1999, p. 78).

In Brunei, teachers' orientations towards economics as a school subject may tend to be that teaching and learning economics can be difficult as the theoretical concepts found in economics are mostly abstract in nature. The teachers' ontological view of economics as a discipline can lean towards a positivist way of thinking. This may tend to make teachers take up the role as transmitters of knowledge and their students to memorize their learning.

Contextual Influences on Curricular Implementation

Talbert *et al.* (1993) argues that teaching contexts are complex, diverse, embedded, and interactive. They influence values, beliefs, policies, and resource allocation, hence impacting on teaching practices (*ibid*). Teaching contexts include mandated materials, such as textbooks, curriculum guides, and standardized assessments. Gess-Newsome (1999) argues that the opportunities and constraints represented by these materials interact with teacher cognition by reinforcing, challenging or changing what is known and believed, and ultimately may shape what is practiced. In addition to the mandated materials, teaching contexts include the students, parents, and school context variables. Gess-Newsome (1999) argues that they can exert a significant influence on how teachers translate their thoughts into action. The research reviewed in this section will specifically examine a teacher's willingness to accept or reject curriculum, textbook, and assessment tools, as well as the impact of students, parents, and school context variables on teaching behaviours. Such studies represent the intersection of teacher knowledge and beliefs and the external influences that impact on classroom practice (Grossman, 1990).

Cronin-Jones (1991) argues that teachers believe that the most important student outcome is factual knowledge and that students should learn through repeated drill and practice. He has selected two school teachers to implement a science curriculum based on wildlife issues. The objectives of the curriculum focus on knowledge, problem solving skills, and values and attitudes associated with wildlife and wildlife conservation. He has found that the teachers have contradictory beliefs about how students learn, the teacher's role,

the perceived level of student ability, and the relative importance of the content topics (ibid).

The primary role of the textbook as a determinant of what is taught in the classroom has been examined in the studies of Galagher (1991), Wineburg & Wilson (1991), Reynolds, Haymore, Ringstaff and Grossman (1988), and Hashweh (1987). They argue that teachers overly rely on the textbook when they have limited knowledge or lack of confidence in their subject knowledge (ibid). In other words, teachers with weak content knowledge could not develop alternative course structures and thus were prone to adopt the structure portrayed in the textbook. Their findings show that this characterization of a limited knowledge base applies to novice teachers, and experienced teachers who are teaching outside their area of expertise.

While textbooks can be more useful for teachers unfamiliar with their content or students, Gess-Newsome (1999) argues that the traditional structure of a text can also constrain teachers' opportunities to learn or change. Yet, Hollon, Roth and Anderson (1991) argue that teachers with weak content knowledge tend to rely on the organization of the text when implementing an unfamiliar curriculum. In addition, teachers also encounter a situation where they could not find the content to be taught in the textbooks (ibid). As a result, without the support of a textbook to conceptually integrate the content, the teachers are forced to rely on the fragmented content patterns found in the textbook to supplement their limited content understandings. Therefore, the findings in this study

have shown that textbooks are seen as both sources and constraints to teachers' knowledge and classroom lesson implementation.

Cornett, Yeotis and Terwilliger (1990) and Duschl & Wright (1989) argue in their studies that contextual variables influence the role of teacher's personal views about content, the selection of student goals and the implementation of curriculum. Cornett, Yeotis and Terwilliger (1990) find that Lori, a novice science teacher, has determined that her teaching content is based on her personal theories of teaching, none of which is directly related to science academic content. Her personal theories have content-specific affective components (e.g. science is fun, higher level learning, reinforcing concepts) which directly impacted upon student learning opportunities (ibid). At the end of their study, Cornett et al. (1990) learn that Lori becomes more experimental and personalizes her curriculum more as she becomes increasingly familiar with the students, school and curriculum guidelines. Duschl & Wright (1989) have examined the way 13 science teachers consider the nature of their subject matter when planning and delivering teaching. They find that science teachers had two types of objectives: curricular objectives, which related to the content found in the curriculum guide; and personal objectives, those based on overall goals for students such as understanding science as process or gaining confidence (ibid). Duschl & Wright (1989) argue that teachers' objectives are focused on the curriculum when they are teaching high ability students. However, they also argue that teachers tend to have personal objectives when they teach lower level students.

Gess-Newsome (1999) argues that teaching contexts affect novice and experienced teachers in different ways. Novice teachers, with limited teacher experience and knowledge of students, initially place more faith in the appropriateness of materials provided for them in texts and adopted curriculum guidelines, but quickly find their implicit beliefs rising to the forefront of decision making. On the other hand, experienced teachers hold tightly to techniques and methods that have worked well for them in the past, valuing these materials for the pedagogical efficiency and ease of implementation. Reasons that prevent the adoption of materials include time, subject matter knowledge, orientation, and curriculum mandates (ibid).

2.2.4 Teachers' use of subject knowledge in teaching

Shulman (1986b) argues that in order for teachers' subject knowledge to be comprehended, it must be transformed in some ways if it is to be taught. Transformation of knowledge happens when a teacher comprehends the subject and transforms the subject to make it comprehensible to others by using the most useful forms of representation of ideas such as analogies, illustrations, examples, explanations, and demonstrations. There is no one powerful representation. He argues that transformation of knowledge helps build a bridge between teachers' comprehension and students' understanding:

"The key to distinguishing the knowledge base of teaching lies at the intersection of content and pedagogy, in the capacity of a teacher to transform the content

knowledge he/she possesses into forms that are pedagogically powerful and yet adaptive to the variations in ability and background presented by the students."

(Shulman 1987, p.15)

Shulman (1987) argues that to represent the content, teachers need to 'prepare', 'select', 'adapt' and 'tailor' the representations for students' needs. *Preparation* involves examining and critically interpreting the materials of teaching in terms of the teacher's own understanding of the subject matter (ibid). This process of preparation will usually include detecting and correcting errors of omission and commission in the text, and the crucial processes of structuring and segmenting the material into forms that are more suitable for teaching (Shulman 1987). *Selections* occur when the teacher draws upon a repertoire of approaches or strategies of teaching to represent the content knowledge. This repertoire can be quite rich, including not only the more conventional alternatives such as lecture, recitation, but also a variety of forms of cooperative learning, discovery learning, project methods, and learning outside the classroom setting (Shulman, 1987). *Adaptation* is the process of fitting the represented material to the characteristics of the students. For example, the teacher has to ask him/herself these questions: 'What are the relevant aspects of student ability, gender, language, culture, motivations, or prior knowledge and skills that will affect their responses to different forms of representation and presentation? What student conceptions, misconceptions, expectations, motives, difficulties, or strategies might influence the ways in which they approach, interpret, understand, or misunderstand the material?' *Tailoring of teaching* involves the teacher doing appropriate representations not only to particular students, but also to a group of

students of a particular size, and interest. For example, the teacher has to produce his or her teaching materials according to the different group of students, in some cases, of different abilities.

Shulman (1987) argues that knowledge representations by teachers involve all the four processes discussed above; preparation, selections, adaptation and tailoring for students' needs. He argues that knowledge representation is significant to help teachers communicate their understanding of the subject knowledge to their students (ibid). However, Bruner (1970) argues that the concept of representation involves three forms: enactive, iconic and symbolic. Enactive representation is defined as understanding by activity; iconic representation is the act of doing something actively; and symbolic representation is the understanding through the use of symbol systems such as spoken and written language or mathematical symbol. Bruner (1970) considers that children first came to understand and represent the world enactively, then iconically and then through symbol systems. He argues that it is different with adults whereby they use all three forms of representation and move back and forth through them as the occasion demands (ibid). Turner-Bisset (2001) argues that teachers can use all three forms of representations as they think about what kinds of representations they generate for particular age-ranges, and how to reinforce an idea through the use of different representation.

McDiarmid, Ball & Anderson (1989) argue that teachers need to judge the pedagogical potential of a representation and determine how well it fits the learners and the context.

In other words, teachers need to be concerned about whether their representations of subject matter are teachable to others (McEwan & Bull, 1991). They argue that when teachers develop a repertoire of subject knowledge representations from outside sources and from their own ingenuity, they will have more options for connecting pupils with subject matter (ibid). They also argue that developing teaching repertoire is an important part of learning to teach and it takes many years for teachers to develop them. Therefore, McDiarmid et al. (1989) argue that teacher educators cannot provide pre-service teachers with ready-made repertoires that will suit all the possible contexts in which they could teach. McDiarmid et al. (1989) argue the importance of generating appropriate representations across all subject knowledge:

“Over time teachers develop a repertoire of subject knowledge representations from outside sources and from their own ingenuity. As these representational repertoires develop, teachers have more options for connecting students with subject matter... This is an important part of learning to teach and it takes many years. We cannot provide beginning teachers with ready-made repertoires that will suit all the possible contexts in which they could teach”.

(McDiarmid et al. 1989, p. 196)

However, in the case of pre-service teachers' transformation of knowledge, Eraut (1994) argues that pre-service teachers are likely to theorize their classroom experience as pupils;

“Teaching strategies of student teachers are generally acknowledged to be strongly influenced by their earlier experiences as pupils. People tend to teach, or in a few cases to avoid teaching, in a similar manner to that in which they themselves were taught”.

(Eraut, 1994, p. 60)

Eraut (1994) argues that tacit knowledge occurs when knowledge is transferred from one situation to another. His argument is that when pre-service teachers interpret their informal knowledge such as their past experiences in teaching, it is very often tacit and highly situated. In other words, pre-service teachers may not know that they are teaching the same way as they were taught themselves. Eraut (1994, 2000) argues that investigating tacit knowledge has proven to be difficult, yet it is important to make tacit knowledge explicit. This tacit knowledge can be made explicit when the knower learns to tell or that the researcher tells and seeks respondent verification (ibid).

This section has focused on the way teachers transform their knowledge for teaching. My argument is that teachers need to understand their subject knowledge so that they can represent their knowledge to their students.

2.2.5 Reflective practice

Reflection is widely recognised as a crucial element in the professional growth of teachers. It is assumed that reflection is intrinsically good and that reflective teachers will

be better teachers (Calderhead & Gates, 1993). They describe that reflection in teacher education involves values, attitudes and beliefs, and cognitive skills. They suggest that there is a developmental process in becoming reflective. In the beginning stages of pre-service education, pre-service teachers basically describe their practice. Calderhead & Gates (1993) explain that the pre-service teachers' development in reflective practice is facilitated by the mentor and teacher educator. These facilitators are important in pre-service teachers' reflection of their practice as "their mastery of a public language for describing practice and the learning of teachers, their ability to engage in constructive dialogue with teachers about their work, to help teachers take charge of their own learning and their willingness to withdraw their support at appropriate times so that teachers develop their own independence" (Calderhead & Gates, 1993). They (ibid) illuminate that professional growth through reflection inevitably recognizes that teaching is a complex activity and a continuous development that demands teachers to be cognitively and affectively working in a context of physical constraints.

McIntyre (1993) focuses on pre-service teachers' reflections and he articulates three levels of reflection: technical, practical and critical. First, the technical reflection where he suggests that in the early stages of their teaching practice, pre-service teachers reflect mainly on technical aspects, for example achieving goals. Second, the practical reflection is concerned with articulating the development of pre-service teacher's own practice. Third, the critical reflection concerns wider political, social, cultural and ethical issues and is rarely practised even by experienced teachers.

Schon (1987) argues that reflection is consciously made as teachers consider both the unexpected event and the knowing-in-action. He argues that reflective practice contains features that represent the past, present, and future aspects of the reflective process. For example, teachers reflect back on the past event and ask themselves questions, 'What is this?' and at the same time, 'How have I been thinking about it?' Schon (1987) argues that reflection-in-action has a critical function as teachers question their knowing-in-action, restructure their strategies of action, and think of ways to understand an event or phenomenon. Hence, Schon (1983, 1987) distinguishes between knowing-in-action and reflection-in-action, that is, knowing-in-action is when a teacher views reflection only as a means of judging his or her performance and reflection-in-action is when a teacher views reflection as a way of increasing his or her understanding of teaching and therefore, as a teacher, he or she will possess a powerful tool to help them improve. He argues that professional expertise does not depend on the application of general theoretical knowledge but more importantly on experience-based knowledge.

Wood (1995) offers a hierarchy of teaching conceptions by beginning teachers (PGCE). He found four categories: 1) teaching as imparting knowledge, 2) preparing pupils to use knowledge, 3) providing opportunities for pupils to see the existence of different perspectives on a phenomenon, and 4) preparing pupils to be reflective. Many of the beginning teachers start with conceptualising teaching as only imparting knowledge and later they become more aware of preparing their pupils to be more reflective in their learning.

Eraut (1994) argues that reflective practice is a deliberative process that involves interpretation and understanding of a phenomenon or an event. Pre-service teachers' reflect on their own past experience of schooling and lives, and this plus the many ideas about education in mass media and in everyday conversation may influence their later behaviour as teachers (Eraut, 1994). He found that when in schools, pre-service teachers may encounter other teachers' theories, even pupils' theories, whether or not they recognize them as such:

“Pre-service teachers undergo three main kinds of experience. They listen to, and sometimes participate in, teacher discourse about pupils, about school or department policy or about classroom practice. They observe teachers and pupils in classrooms, corridors, staff rooms and other settings. They practise teaching with some guidance, receiving comments on lesson plans, being observed, engaging in post-lesson discussion and contributing to logbook or course file”.

(Eraut, 1994, p. 69)

It is my argument that for pre-service teachers to progress, their reflection is the key for them to improve their learning and teaching. Yet, Fish (1995) describes a practice where teachers follow the rules, use routines and want efficient systems instead of reflecting on their practice. He defines this practice as ‘technical rationality’. Fish (1995) distinguishes the features of ‘technical rationality’ with reflective practice as shown in the table below:

Table 2.2.5: Technical Rationality and Reflective Practice (Fish, 1995, p. 43).

TECHNICAL RATIONALITY	REFLECTIVE PRACTICE
Follows rules, laws, schedules; uses routines, prescriptions.	Starts where rules fade; See patterns, frameworks.
Uses diagnosis/analysis to think about teaching.	Uses interpretation and appreciation to think about teaching.
Wants efficient systems.	Wants creativity and allows for room to be wrong.
Sees knowledge as graspable, permanent.	Sees knowledge as temporary, dynamic, problematic.
Theory is applied to practice.	Theory emerges from practice.
Visible performance is central.	There is more to it than surface features.
Setting out and testing for basic competences is vital.	There is more to teaching than the sum of the parts.
Technical expertise is all.	Professional judgement counts.
Emphasises the known	Embraces uncertainty
Standards must be fixed;	That which is most easily fixed and measurable is also trivial-professionals should be trusted.
Standards are measurable;	
Standards must be controlled.	Emphasises investigation, reflection, deliberation.
Emphasises assessment, appraisal, inspection, accreditation.	Professionals can develop from inside.
Change must be managed from outside.	Quality comes from deepening insight into one's values, priorities, actions.
Quality is really about quantity of that which is easily measurable.	Sees education as intrinsically worthwhile.
Takes the instrumental view of learning.	

Reflective practice and craft knowledge

Brown & McIntyre (1993) argue that research on teachers' reflective thinking can help to understand teachers' professional craft knowledge. Their argument is that the way to gain access to teachers' craft knowledge is by observing their teaching and asking them to reflect as soon as possible after their teaching (ibid). However, Fish (1995) argues that Brown & McIntyre (1993) had only asked teachers about what had been successful in their lessons, they had missed out parts of the reflective process which asks: 'What is this?' and 'How have I been thinking about it?'. Fish (1995) argues that Brown &

McIntyre (1993) fail to ask questions that relate to the preparation of lessons. Hence, their findings must be less than comprehensive (ibid).

Brown and McIntyre (1993) argue that teaching is complex because their general findings have shown that teachers' professional craft knowledge is so abstract and its practical value is limited. However, Fish (1995) argues that these general findings could be opposed to reflective practice because such an attempt to develop generalisations can be used to support a technical rationality approach to teacher education:

“They are developing models of learning to teach which predicted the notion that students learn the craft skills of teaching in a first phase of learning to teach and only later, towards the end of their course, learn to reflect upon practice. McIntyre sees reflection as ‘a circumscribed sub-category of theorising’ ...and argues that there is a limited role for reflection in initial training and that it is rarely practised even amongst experienced teachers”.

(Fish, 1995, p 82)

Brown and McIntyre (1993) argue that their study may have created a problem by conceptualising the professional craft knowledge of teachers as based on routine:

“The complexity of the professional craft knowledge which we have examined leads us to be uncertain as to how ‘routinised’ or ‘standardised’ the patterns of teacher action can be. Certainly, teachers do not have time to reflect in their classrooms upon the choices open to them, and they very rarely articulate the kinds of thinking they have revealed in this study; but it seems implausible that

such complex consideration of conditions, selection from repertoires, and combination of goals and actions should be described as routine. We leave this as an issue deserving more reflection and more research”.

(Brown and McIntyre, 1993, p 112)

Their reflection and interpretation of their knowledge and beliefs play an important role in knowledge representation. Since this thesis is focussed on economics as subject knowledge, the next section further examines the literature on knowledge transformation for economics teaching with particular emphasis on pre-service teachers. I explore the relationship between pedagogical knowledge with the subject economics and also the relationship of pre-service teachers and teaching.

2.3 Pre-service teachers and economics teaching

In the previous section, I have described teachers’ knowledge needed for teaching. The kinds of knowledge for teaching which have been discussed are subject knowledge, curriculum knowledge, pedagogical knowledge, craft knowledge, context knowledge and beliefs. In this section, the discussion is more specific on the knowledge for teaching economics and the use of that knowledge by pre-service teachers. The question asked is, ‘How do economics teachers transform their economics knowledge for teaching?’.

2.3.1 The nature of economics

In this section, I argue that the nature of economics may tend to influence how economics teachers think. I discuss that the use of economics in teaching may be influenced by the epistemology and ontology of economics as a subject discipline. Therefore, this section examines the philosophical view of economics which will contrast positivist views with hermeneutic ones.

Economics is a science but it is also a ‘peculiar’ science (Blaug, 1992). Economics is no doubt a science as it provides plenty of examples of “*explanations that are at once systematic and controlled by factual evidence*” (Nagel, 1961, p.4). Economics is a ‘peculiar’ science because unlike physics, it studies human actions and explains the reasons and motives of humans as the causes of things and unlike sociology and political science, it manages somehow to provide precise deductive theories of human action (Blaug, 1992).

Over the last three decades, many economics departments of universities and secondary schools have experienced steadily declining enrolments (Abelson 1996, Parker 1993, Ashworth and Evans, 2000, Kirman and Zimmermann, 2001). Kirman and Zimmermann (2001) find that existing university students openly criticise the lack of relevance in the accounts of social reality with the modern economics textbooks. Bartlett (1995) finds that the abstract and/ or mathematical nature of economics is perceived by secondary students as ‘off-putting’.

In his book, 'What is wrong with economics?', Ward (1972) briefly answers that economics is 'hard-headed positivism'. Since economics is a positive science, Ward (1972, p.173) concludes, "*the desire systematically to confront the theory with fact has not been a notable feature of the discipline*". For him, however, this failure consistently to pursue the task of empirical testing "*is not the central difficulty with modern economics*" (p. 73). Blaug's (1992) argument contrasts with Ward's (1972) where Blaug argues that the central weakness of modern economics is "*indeed the reluctance to produce the theories that yield unambiguously refutable implications, followed by a general willingness to confront those implications with the facts*" (p. 238).

Lawson (2003) finds that academic economists at university faculties of economics are currently concentrating on the use of mathematical models. Even economics journals regarded as prestigious publish almost only articles formulated in mathematical terms (Lipsey, 2001). At university, in learning how to think 'like an economist', students learn certain critical concepts and models. These models are ideas which are expressed in mathematical form and these models that students learn are also known as 'theory' (Strassmann, 1996). Therefore, economic 'theory' is seen to be synonymous with mathematical modelling (Lawson, 2003).

Lawson (2003) offers that the nature of explanation for these economics theories or mathematical models is likely to be deductivism. Deductivism is a type of explanation, 'whenever event x happens, event y follows' is a necessary condition. Lawson (2003)

argues that deductivism is an explanatory form that is used in most modern economics, including most of modern microeconomics, macroeconomics and econometrics. Lawson (2003) also argues that the models may be viewed as alternatives to narratives or story-telling (about the world). Yet, Morgan & Krishna (2001) argue that the case is always that story-telling is deductive because it uses the logic of the mathematics of the model to answer the question.

Lawson's (2003) argument is that modern economics is largely characterised by a mismatch between its methods of analysis and the nature of the material it seeks to illuminate. There is a mismatch between the ontological presuppositions of the methods of formalistic modelling and the nature of the social world in which we actually live. Hence, he suggests the application of ontological insights in modern economics. By ontology, he means "*the study (or theory) of being or existence, a concern with the nature and structure of the 'stuff' of reality*" (Lawson, 2003, p.12). He argues that ontology can help economists to better understand the nature of economics as a science and to appreciate that mathematics is not essential to it. Lawson (2003) believes that modern economics requires a turn away from the currently dominant methods of mathematical-deductivist modelling and a turning towards the framework of critical realism. He argues that the explanation of modern economics needs to provide insights regarding the nature of the social world.

2.3.2 Teaching Economics

Magnusson, Krajcik and Borko (1999) conceptualize that teaching is a transformation of knowledge of subject matter, pedagogy, and contexts (Wilson, Shulman, & Richert, 1987, Grossman, 1990, Gess-Newsome, 1999). Their conceptualization of knowledge transformation is very similar to Grossman (1990). Later in this chapter, I discuss the use of subject knowledge by pre-service teachers which could be influenced by their developmental stage of teaching and their memories as students learning the subject knowledge.

Magnusson, Krajcik and Borko (1999) conceptualize that the transformation of subject knowledge into teaching consists of four components: *conceptions of purposes for teaching subject matter, knowledge and beliefs about subject curriculum, knowledge and beliefs about students' understanding of specific subject topics, and knowledge and beliefs about teaching strategies for teaching subject matter*. I will examine each of these components to illustrate their role in teachers' use of economics in teaching.

Conceptions of purposes for teaching Economics

Grossman (1990) argues that the knowledge and beliefs about the purposes for teaching a subject at different grade levels are reflected in teachers' goals for teaching particular subject matter. She argues that different pre-service teachers have different conceptions for teaching the same discipline. For example, in her studies, two pre-service teachers have different conceptions of teaching literature. One pre-service teacher defines the purpose of teaching literature as teaching students the skills of explanation, while the

other pre-service teacher defines the purpose of teaching literature as helping students make connections between a text and their own lives. Borko and Putnam (1996) argue that the knowledge and beliefs are significant as they serve as a conceptual map that guides teaching decisions about issues such as daily objectives, the content of student assignments, the use of textbooks and other curricular materials, and the evaluation of student learning.

Siegfried (1998) argues that economics pre-service teachers should '*think like an economist*' as this can serve as a conceptual map for economics teaching. Siegfried (1998) argues that thinking like an economist includes distinctive elements such as problem-solving skills and creative skills. Problem-solving skills emphasize analytical reasoning using the techniques and principles of economics. Siegfried (1998) argues that teaching problem solving skills in economics can increase the students' understanding of economic behaviour and improve students' ability to predict the consequences of changes in economic activities. In other words, a problem solving approach involves features that emphasize deductive reasoning and decision making techniques. A creative skills approach, on the other hand, includes identifying economic issues and problems. Siegfried (1998) argues that a creative skills approach helps teachers identify economic issues and problems in ways other people do not see, create proposals for dealing with problems, and devise innovative methods to estimate the magnitude of these effects. Therefore, Siegfried (1998) argues that both problem-solving skills and creative skills by pre-service teachers are as significant to the discipline (economics) as is the development of logically coherent theories of economics.

In contrast, Walstad & Saunders (1998) argue that the purpose of teaching economics using problem solving and creative skills is only facilitated by the pre-service teachers' breadth and depth of economics knowledge. For example, only with an understanding and historical context of economic institutions, can the pre-service teachers develop an economic analysis. Walstad & Saunders (1998) argue that not only does an economic analysis contain logic and facts, but it also includes analogies and stories. In other words, facts and logic alone are rarely adequate in economics teaching. Hence, pre-service teachers need to link the role of context when presenting economic content to their students as this relates to their understanding of economic knowledge.

Walstad & Saunders (1998) argue that other disciplines such as geography and mathematics can help students construct economic arguments. They argue that pre-service teachers can link economics with other disciplines that students learn. Although other subjects besides economics such as literature and chemistry do not share much content, in the sense of special facts, they do share general forms of human reasoning (Walstad & Saunders, 1998).

Knowledge of Economics Curriculum

Wilson, Shulman & Richert (1987) consider curricular knowledge to be a separate domain of the knowledge base for teaching. However, Grossman (1990) and Magnusson, Krajcik and Borko (1999) argue that curricular knowledge is part of pedagogical content knowledge as it represents knowledge that distinguishes the content specialist from the

pedagogue. Grossman (1990) identifies curricular knowledge as that knowledge that includes the goals and objectives of subject curriculum, and the knowledge of the curriculum materials. Therefore, following Grossman's work, knowledge of the economics curriculum in this review includes goals and objectives of the economics curriculum and knowledge of curriculum materials available for teaching economics, including what students have learned in previous years and what they are expected to learn in the future.

Examples of sources for knowledge of goals and objectives include national documents such as the Cambridge 'O' Level syllabus for economics, which outline the frameworks for guiding decision-making with respect to the economics curriculum and teaching. In other words, clearly specified teaching goals and objectives can provide helpful guidance for pedagogy. Gronlund (1995) provides a good illustration of specified teaching objectives that can be applied to most economic content. These objectives can also be applied to other various content areas such as history and science. Figure 1 shows an outline of the cognitive objectives for a unit (or course) in Economics, adapted from Walstad and Saunders (1998). There are four general objectives; knows basic terms, understands concepts and principles, applies basic concepts and principles to new situations and interprets economic data. Each general objective is followed by a representative sample of specific expected behaviour. In figure 1, the illustrative verbs such as 'relates', 'identifies', 'describe', 'distinguish' help to specify the expected students' behaviour.

Figure 2.3.2: Objectives for a Course (or Unit) in Economics (Adapted from Walstad and Saunders, 1998, p. 101).

1. Knows basic terms
 - 1.1 Relates terms that have the same meaning.
 - 1.2 Selects the term that best fits a particular definition.
 - 1.3 Identifies terms used in reference to particular economic problems.
 - 1.4 Uses terms correctly in describing economic problems.
2. Understands economic concepts and principles.
 - 2.1 Identifies examples of economic concepts and principles.
 - 2.2 Describes economic concepts and principles in own words.
 - 2.3 Points out the interrelationship of economic principles.
 - 2.4 Explains changes in economic conditions in terms of the economic concepts and principles involved.
3. Applies economic principles to new situations.
 - 3.1 Identifies the economic principles needed to solve a practical problem.
 - 3.2 Predicts the probable outcome of an action involving economic principles.
 - 3.3 Describes how to solve a practical economic problem in terms of the economic principles involved.
 - 3.4 Distinguishes between probable and improbable economic forecasts.
4. Interprets economic data
 - 4.1 Differentiates between relevant and irrelevant information.
 - 4.2 Differentiates between facts and inferences.
 - 4.3 Identifies cause-effect relations in data.
 - 4.4 Describes the trends in data.
 - 4.5 Distinguishes between warranted and unwarranted conclusions drawn from data.
 - 4.6 Makes proper qualifications when describing data.

Knowledge of students' understanding and content specific teaching methods

Grossman (1990) argues that teachers have knowledge of students' understanding, conceptions, misconceptions of particular topics in a subject matter. In other words, she argues that in order for teachers to generate appropriate explanations and representations, they must have some knowledge about what students already know about a topic and what they are likely to find puzzling. However, Fuller (1970) argues that for pre-service teachers, during their early teaching, their concerns for students' difficulties with the

topic might not yet exist. This is supported by Turner-Bisset (2001) as she argues that pre-service teachers' knowledge of their students has not yet developed as they only have a partial amalgam of pedagogical content knowledge.

Grossman (1990) argues that experienced teachers may possess rich repertoires of metaphors, activities, or explanations that are particularly effective for teaching a particular topic, while pre-service teachers are still in the process of developing a repertoire of teaching strategies and representations. For example, research by Gess-Newsome & Lederman (1993), Reynolds (1992), and Shavelson & Stern (1981) has found that pre-service teachers, with limited content knowledge, often focus on a teaching activity as a concrete means for portraying content, with little consideration for larger issues of disciplinary structure, connections of concepts within a lesson or across a curriculum, or the nature of the discipline. Therefore, Grossman (1990) argues that content specific teaching methods should help pre-service teachers to consider carefully the content that they are to teach.

In Brunei, these components of knowledge for teaching economics are taught to pre-service teachers in their course: methods for teaching economics. This course aims to help pre-service teachers relate to their pedagogical knowledge for teaching economics. In addition, this course combines with other courses which help to prepare pre-service teachers to face the final course of teachers' training: 'Teaching Practice'. This is where pre-service teachers deliver content for teaching. However, Davies and Brant (2006) argue that teaching is more than delivering content or even helping students understand

the content. In the next section, I emphasize that learning theories in teaching economics can influence the development of students' understanding.

The influence of learning theories in teaching economics

In this section, I discuss the way that theories of learning have influenced the approach of applying concepts in economics teaching. Examples of this approach have been developed by the National Council on Economics Education in the US (NCEE, 2004). For example, students might be introduced to the concept of elasticity and then given repeated problems in which they are expected to apply their understanding. Elasticity might be introduced through a numerical example, but this will be an abstract example from which all potential 'real life' complications have been removed. Davies and Brant (2006) argue that in one sense this is a simplification, in another sense it makes understanding more problematic because it creates a distance between students' acquisition of theory and their experience of the world. This problem becomes evident in the difficulties that teachers face in getting students to apply their theoretical understanding (Lee, 1986; Levacic, 1987). Teachers are left to struggle with students' ability to see when it is relevant to use an idea to make sense of a situation (ibid). Davies and Brant (2006) argue that this problem is most apparent in economics teaching, for example, a student who thinks all supply curves slope upwards.

According to Davies and Brant (2006), there have been two notable attempts to overcome this problem. The first of these is found in the US, where economics educators

developed a carefully structured decision-making framework to try to develop students' ability to apply theoretical ideas they had learned:

- Define the problem or issue. What are the important facts? What questions of choice are raised? Where are we in relation to where we want to go?
- Identify the personal or broad social goals we want to attain and assign some rough order of priority to them. Which of the goals apply to this problem or issue? What are the relative weights that should be assigned to each goal?
- Look for the principal alternative ways of attaining these goals in view of the limited resources available and other restrictions imposed on our freedom of action. What are the possible solutions? Which of the alternate solutions seem to be most feasible?
- Identify the pertinent economic concepts needed to understand the problem or issue and then use them to explore the effects of the various alternatives. Which of the concepts are most useful for grasping the essentials of the problem? Which concepts are most useful in exploring the effect of each of the various alternatives?
- Analyze with the help of these concepts the consequences of each of these alternatives for the attainment of various goals. How can the concepts be used to analyze the effects of alternatives? How can they shed light on the attainment of the various goals?
- Evaluate which alternative is best in the light of its consequences both for the attainment of the various goals and for the importance of the difference goals.

What are the trade-offs among the different goals? How much has to be given up in attainment of one goal to increase the attainment of another goal?

(JCEE, 1977:4)

Davies and Brant (2006) argue that through repeated use of this kind of decision-making framework, the teacher would hope to develop students' independent capacity to follow this approach to evaluation options. However, they argue that this is a complex procedure for teachers and students to work through and it is not one that has received much attention in the UK. An alternative, more straight-forward approach was suggested by Hodgkinson and Thomas (1984), but Davies and Brant (2006) argue that this appears to have had little lasting impact on practice.

The second approach of applying concepts has been to use Bruner's idea of a 'spiral curriculum' (e.g. Edexcel, 2004:3). Students following a spiral curriculum will keep returning to the fundamental concepts in progressively more complex concepts. This approach was systematically applied in the design of economics curricula in Scotland in the 1970s (Scottish Education Department, 1978) and more recently it has been used as the basis for the design of the Nuffield business and economics courses. According to the designers of the Nuffield business and economics syllabus, "*in the early stages of the course students' understanding of some concepts will be quite elementary. When they later encounter the same ideas again, and as they see them appearing in different contexts, their understanding deepens*" (Wall, 1996:xi). Therefore, to make sense it must

be possible to understand a concept at several levels of complexity (Davies and Brant, 2006):

“That is, we would not say that a student does or does not understand a concept such as ‘price’ or ‘depreciation’. We would say that either they understand it in this way, that way or another way”.

(ibid, p. 155)

Gibb (2002) and Davies and Brant (2006) have argued that meaningful learning in economics teaching must draw upon students’ experience. If what students learn in school is not connected to their experience outside school then it will have little or no impact beyond the school gates (Davies and Brant, 2006):

“To be successful in any terms, teaching must help students to integrate the ideas learned in school with the sense they have already made of their personal experience. Students develop ideas about business, the economy and enterprise on the basis of their experience and the knowledge and ideas developed through this experience are already stored in students’ long-term memory. If what they learn in school is to have any impact on their thinking outside school then students must be taught to reappraise their existing knowledge and understanding in the light of what is presented in school”.

(ibid, 159)

However, there are different perspectives on what it means to ‘learn from experience’. The two main standpoints that I will examine are ‘experiential learning’ and ‘social constructivism’.

Experiential learning

The theory of experiential learning is often traced to David Kolb (1984). He suggested that learning is a cyclical process that begins from students’ experience. According to Kolb et al:

“Concrete experiences are the basis for observations and reflections. These reflections are assimilated and distilled into abstract concepts from which new implications for action can be drawn. These implications can be actively tested and serve as guides in creating new experiences”.

(2001:3)

For this theory, the teacher teaching students in the classroom has to ask, ‘What experiences do the students have that are relevant to the topic I am about to teach?’. However, Davies and Brant (2006) argue that it is important to remember that the experience of school as a student is very different from experience of school as a teacher and the theory of experiential learning argues that it is the individual’s personal experience that is the starting point, not simply the context in which that experience was gained.

For these reasons teachers who have accepted the experiential learning theory have tended to promote the virtues of providing students with new experiences that can form the basis of their learning (Davies and Brant, 2006). These new experiences can be divided into two kinds: direct experience of business and simulations of business experience. Direct experience of business may be provided through work experience or organised class 'field trips'. Examples of economic simulations are production games, planning decisions and negotiations. However, Davies and Brant (2006) argue that simulations that are simple are more likely to be regarded as unrealistic, while simulations that are more complex are difficult to manage and it becomes very difficult for students to identify cause and effect when so many variables are in play.

Social constructivism

Social constructivism recognises that learners are being introduced to ways of interpreting the world that have been constructed by academic disciplines or 'communities of practice'. Ideas such as depreciation, break-even and externalities are not simply the product of individual interaction with the environment, but ways of thinking about business, the economy and enterprise that have been developed over time by communities of scholars (Davies and Brant, 2006). As such they are necessarily removed from the experience of an individual student. If students are to learn to use these ideas in their thinking they will need the support of an expert teacher who understands the idea to be taught and also understands the way in which that idea fits in with other ideas in the subject (ibid).

However, Davies and Brant (2006) argue that unless the student can relate the new idea to the way they have constructed their understanding of the world it will have no impact on their day-to-day thinking. A division will remain between 'school knowledge' and 'everyday knowledge' (Rogoff, 1994; Carraher et al., 1985). While everyday reasoning may be prone to all manner of errors (Perkins, 1989), it will continue to be used unless teaching leads students to revise (rather than add) to their current thinking. We might succeed in helping a student get a good examination grade, but they will not use their school knowledge to any practical effect and will forget it soon after they leave (Davies and Brant, 2006).

In addition, Davies and Brant (2006) argue that social constructivism suggests that students learn principally through their social interactions. They will learn through social interaction with others in which they try to make sense of the experience they have had. These 'others' might be teachers, individuals with substantial business experience or other students. According to social constructivism, an active creation of new knowledge must happen through students' use of language (ibid). They must work out new ways of articulating thoughts and not simply learn to mimic the way someone else presents an idea. It is in their use of language, interacting with others, that students construct a way of relating new concepts to the perceptions built up through their previous experience.

Davies and Brant (2006) argue that this social constructivism has four implications for teaching. First, thinking does not easily transfer between contexts. Students may be able to work out a percentage by a standard procedure in mathematics lesson, but when they

are working in a business studies lesson they may be unable to carry out the same procedure and outside school they may adopt totally different strategies for working out mathematical problems. They have not ‘forgotten’ how to do percentages; they never learned how to work them out in contexts beyond the mathematics classroom.

Second, the social constructivist approach to learning emphasizes that learning involves induction into a way of thinking that has been developed by a particular community (whether it is a social group, an academic discipline or a professional group). The likelihood that students will be persuaded to adopt a new way of thinking will be greater if they feel positive about belonging, or trying to belong, to that group. For example, students who aim for future employment in ‘business’ are much more likely to strive to understand the ideas developed in business studies than those who feel alienated from school and pessimistic about the future status of their employment. Teachers who succeed in getting students to believe that understanding their subject is intrinsic to their future greatly increase the likelihood that students will grasp new ideas in their subject. This is not the same as aiming for high examination results; it is to do with students’ self-image: their sense of what they can be (Davies and Brant, 2006).

Third, students need the help of a subject expert to progress in their thinking. Social constructivism portrays learning as an induction into the way of thinking that has been developed by a particular community and a key member of that community – the teacher – is essential to supporting students’ learning. The problem is: how does a teacher help a student to understand something that is beyond their current conception? This problem is

addressed by Lev Vygotsky's notion of a 'zone of proximal development' (Vygotsky, L.S., 1978):

"The idea here is that what we already know gives us partial access to some things we do not yet know but that we can understand if we are helped by someone else. We might think of what we know as a well-focused image that is surrounded by a hazy periphery in which we can detect objects that we cannot quite identify. The teacher's job is then first to make clear what these 'hazy objects' really are and then to gradually reduce the level of support they provide so that students can identify and work with these new understandings in terms that make sense to them and others in the community (or academic discipline) into which they are being inducted. This approach to teaching is referred to as 'scaffolding'"

(Davies and Brant, 2006, p. 172)

A fourth implication for teaching economics focuses on the way opportunities are provided for students to use their language to develop their understanding. (Davies and Brant, 2006) argue that it is important to emphasise that it is in using their language that students will be able to develop their understanding. This means that teaching should encourage students to feel that the way in which they express ideas is important.

Davies and Brant (2006) argue that teaching is more than delivering content or even helping students to 'understand content'. Students' learning is shaped by their experiences of business, the economy and enterprise, but only in so far as this experience

has influenced their perceptions of the world. Their learning is also shaped by the perceptions they have developed as a result of their experience of learning. Good teaching is not simply a matter of 'building on' these prior perceptions because new ideas must be embedded in students' thinking if they are to become part of the way they see the world. This may require getting students to recognise the limitations of their current thinking and enabling them to develop a different view that replaces what was there before. Teaching that does not change what students think is unlikely to have a lasting impact.

To summarise this section, earlier I have argued that Magnusson, Krajcik and Borko (1999) conceptualize that the transformation of subject knowledge into teaching consists of four components: conceptions of purposes for teaching subject matter, knowledge and beliefs about subject curriculum, knowledge and beliefs about students' understanding of specific subject topics, and knowledge and beliefs about teaching strategies for teaching subject matter. By knowing these components, economics teachers can teach the content and help students understand the content. Later, I argue that teaching economics is more than delivering content. Economics concepts need to be applied in order to be understood. Learning theories are important in economics teaching as they can help students to think, develop new knowledge and express their own ideas. In the next section of this chapter, I discuss the literature on the relationship between pre-service teachers and the use of knowledge which can affect the way pre-service teachers teach economics.

2.3.3 Pre-service teachers and teaching

Fuller (1970) argues that pre-service teachers use their knowledge for teaching according to their development process; he argues that pre-service teachers go through stages of development in teaching (shown in table 2). At the beginning, pre-service teachers' concerns are distributed over stages 0-3, with attention to 2 when starting class teaching and attention to 3 when talking to small groups of pupils. As pre-service teachers develop competence and confidence, they begin to acquire significant concerns at stages 4-5, though the earlier stages are likely to remain important for some considerable time. However, Eraut (1994) argues that pre-service teachers may be unlikely to attain these later stages of concern.

Table 2.3.3: A Model of Teacher Development (Fuller, 1970)

I	Early phase	0	Concerns about self (non-teaching concerns)
II	Middle phase (competence)	1	Concerns about professional expectations and acceptance
		2	Concerns about one's own adequacy: subject matter and class control
		3	Concerns about relationships with pupils
III	Late phase (professionalism)	4	Concerns about pupils' learning what is taught
		5	Concerns about pupils' learning what they need
		6	Concerns about one's own (teacher's) contributions to pupil change

Other studies have tried to identify the development of pre-service teachers at different stages of pre-service education. Hlebowitsh & Tellez (1993) argue that pre-service teachers tend to value student centred concerns and enter their courses with a humanistic

drive. Their studies indicate that perceptions of effective teaching do change as pre-service teachers progress through their pre-service education (ibid).

McDermott, Gormley, Rothenberg & Hammer (1995), in their comparative study of undergraduate and graduate pre-service teachers, discover that pre-service teachers move from a perspective which emphasises student learning, to one which emphasises classroom management. In a similar study, McCullough & Mintz (1992) learn that second year pre-service teachers have concerns for student centred issues such as motivation and classroom climate. However, they argue that by the fifth year, these concerns change to a focus on teaching and management techniques (ibid).

Wilson et al. (1987) argue that research on development of teacher knowledge focuses little attention on pre-service teachers' conceptions of content. Fuller's model of teacher development demonstrates that pre-service teachers' primary concerns during the first stage of their professional development are focused on survival, suggesting that little attention is devoted to teaching or conceptions of content. Wilson et al. (1987) argue that although pre-service teachers are preoccupied with their survival and with the management of the classroom, they also struggle with finding ways to explain the content of their disciplines to secondary students. They (ibid) find that pre-service teachers tell researchers their 'concerns' if they are asked, unlike the structured concerns depicted in Fuller's model. Examples of pre-service teachers' 'concerns' include: whether to value a well managed classroom or quality learning outcomes; whether to value academic outcomes or recognise and respond to the personal needs of pupils. In making the

transition from students to teachers, the pre-service teachers need to confront these concerns as they can have an impact on their future practice. Therefore, it is my argument that the task of teacher educators is to help pre-service teachers maintain and develop their empathetic perspectives of their pupils throughout their teacher preparation courses.

However, Lortie (1975) argues that pre-service teachers' knowledge is influenced by their memories of how their teachers taught the topics. Lortie (1975) argues that the time spent as a student provides a pre-service teacher with images of teaching that prove difficult to overcome. Lortie (1975) claims that the pre-service teachers' collection of memories from observing other teachers' teaching could have a strong influential impact on their way of teaching and is likely to give pre-service teachers a biased vision of the nature of teaching. Pre-service teachers' rely on their memories of themselves as students to help shape their own expectations of students (Feiman-Nemser & Buchmann, 1985; Grossman & Richert, 1988). They may assume that their experiences as students were representative and use their memories of their interests and abilities in a particular subject matter to inform their knowledge of student understanding in that area. As a result, teachers' knowledge of the content becomes confused with the knowledge of teaching strategies, as pre-service teachers imitate the strategies they experienced as students.

Grossman (1990) argues that pre-service teachers' memories of their lecturers teaching at the university level can be particularly powerful in the development of pre-service

teachers' pedagogical content knowledge. This is because pre-service teachers begin with the intensive study of their subject major that they will later teach in schools. She argues that the memories of the strategies used by their lecturers in their university classes in a subject are clearer and more readily accessible for pre-service teachers than those memories recalled from their teachers at secondary schools. However, Lortie (1975) argues that pre-service teachers' curricular knowledge can be influenced by their experience as students where they have been exposed to particular texts and topics at certain grade levels. Pre-service teachers may tend to rely on their perspectives as students as they are likely to remember aspects of the curriculum with which they are most familiar (ibid).

Eraut (1994) argues that pre-service teachers might not notice that they have been imitating their previous teachers. He argues that pre-service teachers' knowledge of using their different bases of knowledge to teach can be tacit (Eraut, 1994, 2000). Therefore, the teaching of subject knowledge drawn from observing other teachers' teaching may be more tacit than explicit, more conservative than innovative and may prove difficult to overcome in professional education (Grossman, 1990).

Lave and Wenger (1991) argue that pre-service teachers' use of knowledge involves their own participation as a way of learning in the community of practice. Wenger (1998) states that communities of practice are an integral part of our daily lives and that participation in the communities of practice in which any knowledge exists is an epistemological principle of learning. Wenger (1998) explicitly recognizes that

individuals may be members of several communities of practice simultaneously, and discusses the process of 'brokering', in which individuals, even novices can introduce elements of the practice of one community into the practices of another. Therefore, situational learning occurs in the practice community and involves participation as a way of learning – 'of both absorbing and being absorbed in the culture of practice' (Lave and Wenger, 1991, p.95). Yet, Huberman (1993) identifies this change of understanding practice as 'continual tinkering' by pre-service teachers to improve their teaching. Although pre-service teachers as teachers in schools encounter other teachers' theories, even pupils' theories (whether or not they recognize them), they 'theorize' their knowledge for teaching (Eraut, 1994). In other words, pre-service teachers interpret their decisions, actions and experiences when they teach. However, there is a possibility that the beliefs about the nature of what counts as educational knowledge can be overwhelming for pre-service teachers, particularly since many views are often at odds with pre-service teachers' epistemologies of educational practice (Neumann, Pallas, & Peterson, 1999).

Pring (1996) argues that student teachers must be placed in a situation where preconceptions of how to teach may be challenged, and only then can they develop their knowledge of successful practice. He offers that such "*a challenge is made where there is access to practical or tacit knowledge, possibly with different values and beliefs, and such a challenge is accompanied by the encouragement within a framework where fresh ideas might be hypothesised, put to the test and evaluated*" (Pring, 1996, p. 17). If student teachers are to become professional educators, they need to be challenged

critically to evaluate their thinking and their practice (Maynard, 1996). She (ibid) suggests that there are profound difficulties in expecting cooperating teachers to take on this 'challenging' role hence she argues that it is a task that must be taken on by the higher education tutors. Alexander (1984) offers three principles of preparing teachers to teach, i) speculative theory, ii) the findings of empirical research, and iii) the craft knowledge of practising teachers.

Furlong et al. (2000) articulates that the pedagogy courses in higher education have always seen themselves as responsible for providing pre-service teachers with a sense of what constitutes good practice in their subject area. In their research of student teachers' conceptions of higher education, Furlong et al. (2000) find their respondents (student teachers) state that their higher education tutors provide them with a sense of 'vision' in their teaching. That vision refers to the practical preparation that the student teachers did while they were in higher education. However, Furlong et al. (2000) state that a majority of their respondents complained that the vision that they were given during higher education was inappropriate to be practiced in schools. The student teachers accused the tutors as 'being out of touch with reality' (Furlong et al., 2000).

2.4 Teaching and culture

Educators need to be 'critical' educators (Pennycook, 1994). To be critical educators, they need to be engaged with culture, values and ideas at the levels of classrooms, school and system so that they can have a viable and comprehensive framework for the empirical study of teaching and learning (Alexander, 2001). Pennycook (1994) argues

that critical educators need to be ‘listening intellect’. He (ibid) suggests that educators need to listen to pupils and teachers from different backgrounds and share their pedagogical insights with these teachers. Educators, teachers and student teachers need to listen and be sensitive so that they can understand the cultural politics of their educational context, for example, the issues of gender, religion, ethnic, economic and political power in their working contexts (Foucault, 1980). Hence, Alexander (2001) argues that understanding the interplay of education and culture can help us to improve the quality of educational provision. However, Hall et al. (2002, p. 118) suggests a pedagogy that *“opens doors to new communicative practices and resources, that expands students’ options for participating in their worlds and enables them to use their resources to bring their cultural worlds into existence, maintain them, and transform them for their own purposes”*.

Pennycook (1994, p. 316) argues “the relationship between the need to give students access to forms of language, culture, and knowledge that are privileged within a society and the need to help students to develop their own forms of language, culture and knowledge is a key question for *critical pedagogy*”. If English is the language of teaching and learning, Pennycook (ibid) suggests that there is a need to ensure that students have access to standard forms of English language and the students are encouraged to use English in their own way. However, he (ibid) was not suggesting that the students are encouraged to do as they like with the forms of English language. Yet, Bruner reminds us that in our pedagogical theorising, *“We are still drawing rich sustenance from our more distant, pre-positivist past. Chomsky acknowledges his debt to*

Descartes, Piaget is inconceivable without Kant, Vygotsky without Hegel and Marx, and 'learning theory' was constructed on foundations laid by John Locke" (Bruner, 1990, pp. x-xi). Learning and teaching, as argued by Alexander (2001), are shaped by culture and history.

Alexander's (2001) argument is that the culture, history and values are central for a proper analysis of pedagogy. He (ibid) argues that human values are highly pervasive in schools and classrooms and the values exist in teaching and classroom organization. Alexander (2001) argues that we need to understand that such 'core values' and 'value conflicts' are likely to influence the social relations between teachers and pupils inside the classrooms. He (ibid) discovers that different cultures in different countries can affect the pedagogy in the classroom. For example, in India, where the cultures are as Shweder (1991, p. 49-50) describes, 'holistic and sociocentric', Alexander (2001) discovers that teaching as transmission is the most prominent. In contrast, the UK's cultures with the concept of "*the autonomous distinctive individual living in society*" (Shweder, 1991, p. 49-50), teaching is respecting individual differences and responding to developmental readiness and need. Therefore, Alexander (2001) proposes that we need to understand why it is that whole class teaching and the principle of bringing the whole class along together 'fit' more successfully in many other cultures than they do in England or the USA. He (ibid) suggests that the teaching strategies may be a value dilemma which may be fundamental to a society's history and culture.

In teaching economics, the culture of the pupils may not be addressed in the textbooks. Fisher (1990) argues that most economics textbooks are intended for native speakers of English. He states that the examples and illustrations using everyday situation are intended to marginalise non-native speaker students. He argues that "*the English for economics textbooks do not address the problems that non-native speakers may have in understanding everyday examples drawn from a culture different from their own*" (Fisher, 1990, p. 84-85). Although Fisher argues that economics pupils need to be able to interpret textbooks, he finds that there is often a mismatch between the command of English and the knowledge of economics that is assumed to be possessed by economics pupils. Fisher argues that it is a mistake to assume that a poor command of English means that the pupils know little economics. Fisher concludes that economics textbooks are likely to be of greater benefit to the learners with lower levels of language ability if the textbooks are locally prepared by economics teachers and economics specialists. However, Davies & Brant (2006) argue that teaching economics needs to focus on the opportunities provided for pupils to use their language to develop their understanding. Teaching economics should encourage pupils to feel that the way in which they express ideas is important (ibid).

Davies & Brant (2006, p.176) argue that "*the sequence of teaching matters*". They argue that ideas should be introduced in simple representations first before moving on to more complex representations. But the problem is how can a teacher help pupils to understand something that is beyond their comprehension? The idea is addressed by Vygotsky's notion of a 'zone of proximal development': what we already know gives us partial

access to 'hazy objects' (some things we do not yet know but that we can understand) if we are helped by someone else. In teaching, the pupils are helped by the teachers and this approach to teaching is called scaffolding. The teachers help the pupils progress by making clear the 'hazy objects' and then to gradually reduce the level of support they provide so that pupils can identify and make sense of the new surroundings. Davies & Brant (2006) argue that the teachers must also have an idea of the way in which different conceptions of a problem are layered. The idea of 'variation in understanding' developed by phenomenography can help teachers to scaffold the pupils' conceptions of the lesson (Wood, 2006). Davies & Brant (2006) give an example of a scaffolding lesson using the idea of 'variation in understanding'. In teaching 'break-even', the teacher identifies that the key to pupils' understanding is for pupils to conceptualise the 'change in profits'. The teacher then focuses on "*how pupils understanding can deepen from single explanations to multiple explanations and then from multiple explanations to integrated explanations*" (ibid, p. 174).

However, it is not unusual for the most important objectives in teaching to take a long time to achieve, that is, developing pupils' ability to explain and write an argument in economics (Davies & Brant, 2006). They (ibid) argue that the approach of social constructivism recognises and explains that learners are being introduced to ways of interpreting the world that is constructed by academic disciplines or 'communities of practice'. For example, they (ibid, p. 170) state that "*ideas such as 'depreciation', 'break-even' and 'externalities' are not simply the product of individual interaction with the environment, but ways of thinking about business, the economy and environment that*

have been developed over time by communities of scholars". However, they (ibid) argue that good teaching is not simply a matter of 'building on' these prior perceptions because new ideas must be embedded in students' thinking. Teaching needs to change what pupils think in order to have a lasting impact in their learning development (Davies & Brant, 2006).

2.5 Conclusion

This chapter is concerned with the use of subject knowledge by pre-service teachers. As discussed in this chapter, representation of subject knowledge is important to help teachers communicate their understanding of subject knowledge to their students. For example, in economics teaching, pre-service teachers represent the content taught to students as they relate the content to their students' experience of economics in real life.

This chapter informs me that pre-service teachers reflect on their teaching beliefs and knowledge of economics and transform them for teaching. They interpret and make sense of their content knowledge in order to produce appropriate representation for their students' age and abilities. However, I also expand the argument that pre-service teachers tend to use their informal knowledge tacitly when representing their subject knowledge for teaching. As such, the influence of pre-service teachers' experience of learning economics as students can have an impact on their way of teaching economics.

In this chapter, I explored the interplay of culture and language in teaching and learning and expanded the argument that understanding their influence on education can help

improve the quality of teaching and learning. However, I also explored that good teaching should enable pupils to develop new ideas if they are to become part of the way they see the world. Therefore, this chapter informs me that the conceptions of economics that pre-service teachers have and their use of economics for teaching need to be examined and focused.

In the next chapter, I discuss the research approach needed to investigate the nature of 'reality' in an attempt to understand the conceptions of learning to teach by pre-service teachers and the way they interpret their use of subject knowledge in teaching. I will adopt a research design that explores the three domains of transcendental realism; the 'real', that is, the mechanisms whereby pre-service teachers' beliefs, traditions, practices and assumptions influence the way they teach; the 'actual', that is, the pre-service teachers' teaching, learning and reflection on the events; and the 'empirical', that is, the pre-service teachers' experiences of learning to teach during teaching practice.

Chapter 3

Methodology

3.1 Introduction

The aim of my research, as stated in chapter 1, is to study the conceptions of pre-service teachers' use of their subject knowledge of economics for teaching school economics and commerce in the secondary schools in Brunei Darussalam. My research explores the relationship between the pre-service teachers' conceptions of subject knowledge and the way they teach the school subjects and also, aims to understand the pre-service teachers' experience of learning to teach their subject knowledge.

The rationale for this research is self-evident as I am a teacher educator at the University of Brunei Darussalam. My interest is in the development of pre-service teachers (see chapter 1) and the way knowledge is 'transformed' in the classroom (see chapter 2). My interest, specifically on the relationship of economics and teaching, influences the main research question and the research approach in this study. The research approach for this study is further explored and justified in this chapter.

3.2 Ontology, epistemology and methodology

Ontology is the study of the nature of reality. It is the enquiry into the nature of being, about what exists, about what is the nature of the world, and about what is reality (Cohen & Manion, 1994). Epistemology is concerned with what distinguishes different kinds of knowledge claims – specifically the distinction between what is legitimately knowledge

and what is simply opinion and belief (Usher, 1996). In other words, epistemology is concerned with the structure, origin and criteria of knowledge including the relation between the knower and the object known, the possible kinds of knowledge, the nature of truth, and the nature of and justification for presumption (Cohen & Manion, 1994).

The idea of transcendental realism is developed by Bhaskar (1979). In transcendental realism, ontology (being) and epistemology (knowing) are treated as separate. Bhaskar identifies four foundational principles: there are objects in the world whether they are known or not; knowledge is fallible because any claim to knowledge can be refuted; there are transphenomenalist truths in which one may only have knowledge of what appears; and there are counter-phenomenalist truths in which those deep structures may actually contradict their appearances.

Bhaskar (1979) argues that there are three domains: the real (consisting of mechanisms), the actual (consisting of events) and the empirical (consisting of experiences). He articulates that relations between them are contingent. In transcendental realism, *“events can occur in the world without them being observed by everyone or indeed by anyone; mechanisms can act to neutralise other mechanisms, so that nothing changes in life which can be directly observed; indeed, mechanisms may not be activated but still retain their potential powers to influence events”* (Scott, 2000, p.14).

Scott (2000) argues that a common fallacy in educational research is to claim that what practitioners say they did is the same as what actually happened. He argues that to

explain epistemology and ontology, we need to address three questions (Scott, 2000, p. 16), the first question addresses epistemology: “What is the nature of the reality which we are attempting to find out about? How can we know it? And what are the implications of answers to these first two questions for our choice of methods if we engage in empirical research?”

Methodology is concerned with the analysis of how research should proceed, about how theories are generated and tested, and how theoretical perspectives are related to research problems. Methods are the instruments by which data is collected. Thus interviews, observation schedules, questionnaires are methods. Different and contrasting methodologies may embrace the same data collection method (Guba & Lincoln, 1994).

The different approaches to social and educational research will depend upon one’s ontological and epistemological position. Since the Enlightenment, the dominant paradigm that underpins social and educational research has been the positivist/empiricist approach. The positivist/empiricist approach claims that scientific method is the methodological guarantee of a true and certain knowledge. The positivist/empiricist epistemology asserts that a scientific method reveals facts about the world. The assumption is that the world is objective in the sense that it exists independently of those who seek to know it. Facts are to do with the world and are therefore objective. Positivist/empiricist epistemology argues that any claim to knowledge must be justified on the basis of how the claim was reached. If the knowledge claim is based on observation and measurement which is systematically and methodically carried out, then

epistemologically, this is taken as 'good grounds' for considering the knowledge claim to be valid or true (Usher, 1996). The problem with social and educational research based on this positivist/empiricist approach is that its ontological assumptions about the nature of the world, that it is orderly, lawful and hence predictable, are highly problematic. Social events, processes and phenomena in social and educational research are more usefully seen as open and indeterminate (Kuhn, 1970).

An alternative research methodology is the hermeneutic/interpretive one. The hermeneutic/interpretive approach takes place against a background of assumptions, beliefs and practices of the world. The hermeneutic/interpretive approach argues that in social research, knowledge is concerned not with generalisation, prediction and control but with interpretation, meaning and illumination (Scott & Usher, 1996). In other words, the hermeneutic/interpretive approach assumes that all human action is meaningful and hence has to be interpreted and understood within the context of social practices. The researcher thus tries to make sense of the context through an interpretative framework. This poses the problem of how, as researchers, one can be objective about the meanings produced by the research. One answer to this problem is that although researchers must recognise the situatedness of their research, they must also 'bracket', i.e. temporarily suspend their subjectivity, and assume the attitude of a disinterested observer. Gadamer (1975) argues that it is impossible to escape from our 'pre-understandings' even temporarily. So rather than bracketing or suspending them, researchers should use them as the essential starting-point for acquiring knowledge. To know, one must be aware of one's pre-understandings even though one cannot transcend them (ibid).

Postmodernism is another alternative approach to research. Postmodernism is a belief system that appreciates the complexities of this world and the difficulty of having certain knowledge of it. Postmodernism is not anti-positivist *per se* but emphasises the need for science to be self-reflective about its limitations. Postmodernism challenges the dominant view that there is a determinate world which can be definitely known and explained. It challenges the epistemology that comes with positivism/empiricism and thus the scientific method that assumes a true and certain knowledge. Postmodernism also challenges the epistemology of hermeneutic/interpretive research as it sees this as still implicitly operating within the positivist/empiricist framework. In other words, the emphasis on the 'subjective' instead of the 'objective' is merely a reversal which still works within a framework of 'objective-subjective' (Usher, 1996). Thus, the postmodern approach challenges the epistemological validity of this objective-subjective framework.

Postmodernism is more critical than the hermeneutic approach in terms of making sense of research because it involves more than generating accurate representations of the research. It focuses on asking reflective questions such as: Why do we do research? How has our research been constructed? To what extent does research empower those involved in it? Usher (1996) argues that postmodernism might be an unfamiliar process for researchers because generally they assume that they accurately produce a text that represents the world that has been researched and that they have used the correct research methods. Hence, in postmodernism, there is neither an origin point of knowledge nor a final interpretation of it (ibid).

In conclusion, the philosophical underpinnings of research, specifically the ontological and epistemological assumptions, have been explored in relation to the different research approaches in social and educational research. The failure to examine these assumptions has caused research to be understood as a 'technology'; as simply a set of methods, skills and procedures, applied to a defined research problem (Scott & Usher, 1996). Consequently, researchers need to discuss the ontological and epistemological bases of their research approaches as these distinctions are fundamental to the conduct of any research.

3.3 My ontology, epistemology and methodology

I have drawn upon a transcendental realist stance. My ontological assumption is that people's experiences of the world around them are real, apparent and situational. The representation of reality is not simply being reflected 'as it really is' but is indeterminate. Therefore, to undertake research as a realist, I have to take a critical stance towards the practice of sense-making in this research.

I believe that knowledge exists within reality itself. Human action is meaningful and to explain the social world we must understand it and make sense of it. Knowledge takes into consideration factors such as beliefs, traditions, practices and assumptions, and there is an attempt to explain them. In other words, the epistemology in this research acknowledges the complexities of dealing with the epistemology of pre-service teachers' knowledge, beliefs and thinking. As such, an interpretation that combines both realism and constructivism is used to get beyond the description of a pre-service teacher's

account, to consider the potential influence of context, and to raise questions about how pre-service teachers engage with and use their subject knowledge.

My methodological approach is hermeneutic. The general assumption of the hermeneutic approach is that all human action is meaningful and hence has to be interpreted and understood within the context of social practices. By adopting a hermeneutic approach, this research interprets the tendencies and mechanisms that can influence a pre-service teacher's learning experiences, such as beliefs, that can influence his or her way of teaching. This research critically examines the nature of the relationship between the pre-service teachers' understanding of economics, the way they teach economics and commerce and their understanding of teaching within the context of practice. This process of sense-making will enable me to then construct the relationships between pre-service teachers' conceptions of subject knowledge and their conceptions of teaching within the particular context, that is, the teaching practice.

3.4 The conceptual framework

The structure of this research is conceptualised according to Cochran-Smith and Lytle's (1999) framework of teacher learning. They argue that there are three conceptions of knowledge-practice relationships: knowledge-for-practice, knowledge-in-practice, and knowledge-of-practice. They argue that these 3 knowledge-practice relationships are the three prominent conceptions of teacher learning. For each of the three conceptions, they unpack the dominant images within each conception. They use the term images to mean

the central common conceptions that seem symbolic of basic attitudes and orientations to teaching and learning (Cochran-Smith & Lytle, 1999).

Figure 3.4 assumes that the images of knowledge, practice, and teachers' roles lie within the three conceptions of learning (Cochran-Smith & Lytle, 1999). The first conception of teacher learning, knowledge-for-practice is assumed to be that of formal knowledge and theory for teachers generated by university-based researchers in order to improve practice. The second conception of teacher learning is knowledge-in-practice. They argue that knowledge-in-practice represents practical knowledge or teachers' knowledge that is embedded in practice and in teachers' reflections on practice. The third conception is knowledge-of-practice in which they assume that teachers learn when they generate local knowledge of practice by working within the contexts of inquiry communities to theorize and construct their work and to connect it to larger social, cultural, and political issues. They assume that this third conception is the knowledge generated when teachers treat their own classrooms and schools as sites for intentional investigation at the same time that they treat the knowledge and theory produced by others as generative material for interrogation and interpretation. In this study, the third conception is defined as the knowledge that pre-service teachers generate in a community of practice. Pre-service teachers' participation in the cultural practice in which any knowledge exists is an epistemological principle of learning (Lave & Wenger, 1991).

Figure 3.4

Teacher Learning: A Conceptual Framework (modified and adapted from Cochran-Smith & Lytle, 1999, p.252)

Knowledge-Practice Relationship	What is assumed to be the relationship of knowledge and practice?
Knowledge-for-practice (Images of knowledge)	What is assumed about the nature of subject knowledge? What knowledge are pre-service teachers assumed to need in order to teach their subject knowledge better? What are the sources or forms of that knowledge? How do pre-service teachers interpret and use that knowledge?
Knowledge-in-practice (Images of teaching subject knowledge)	What is assumed about the nature of the activity of teaching? What is included in the idea of teaching subject knowledge?
Knowledge-of-practice (Images of pre-service teachers' learning to teach)	What is assumed about the roles that economics pre-service teachers play in educational change, with regards to teaching subject knowledge? What are assumed to be the intellectual, social, and organizational contexts that support pre-service teachers' learning to teach subject knowledge? What is the role of communities in these?

By adopting a hermeneutic approach, these conceptions of learning to teach held by pre-service teachers are interpreted as realist and constructivist. When pre-service teachers give a description of their experiences of teaching the subject knowledge in practice, their conceptions involve a description of some objective reality. This is called realist interpretation. The interpretation of individual differences in pre-service teachers'

behaviour as a result of the differences in pre-service teachers' conceptions is called constructivist interpretation (Marton, 1986).

There are two kinds of constructivism: individual and social. Marton and Booth (1997) relate individual constructivism with Piaget's work as that knowledge which is constructed through individual learner's interaction with the physical environment. Marton and Booth (1997) reject the view that individual differences in learning should be explained in terms of its theoretical underpinning. They argue that the individual differences in learning should be accepted as their own construction of experiencing a phenomenon. Hence, in this research, the description of a pre-service teacher's account is interpreted as the knowledge that is constructed by an individual pre-service teacher as one makes sense of the context and the curriculum.

On the other hand, social constructivism is the knowledge that is constructed through a social process involving collaboration and negotiation among a group of learners (Marton and Booth, 1997). More explicitly, Wenger (1998) has constructed a framework for the analysis of learning in social contexts. This model implies that pre-service teachers learn to teach through participation in a particular local community. They discuss the meaning of what counts as knowledge through interactions with others in the same community and exposure to reifications, for example, books and articles. The more a pre-service teacher is drawn towards the centre of such a community, the less likely he/she is to develop a more varied understanding of the epistemologies of teaching (Wenger, 1998). Consequently, Wenger's theory is useful in this research as it can help to analyse the

changes in the beliefs of pre-service teachers in relation to their conceptions of using subject knowledge in teaching.

3.5 My research design

My primary research question is:

How do pre-service teachers use their subject knowledge of economics to teach secondary school subjects of economics and commerce in Brunei?

My research question is guided by three operational research questions:

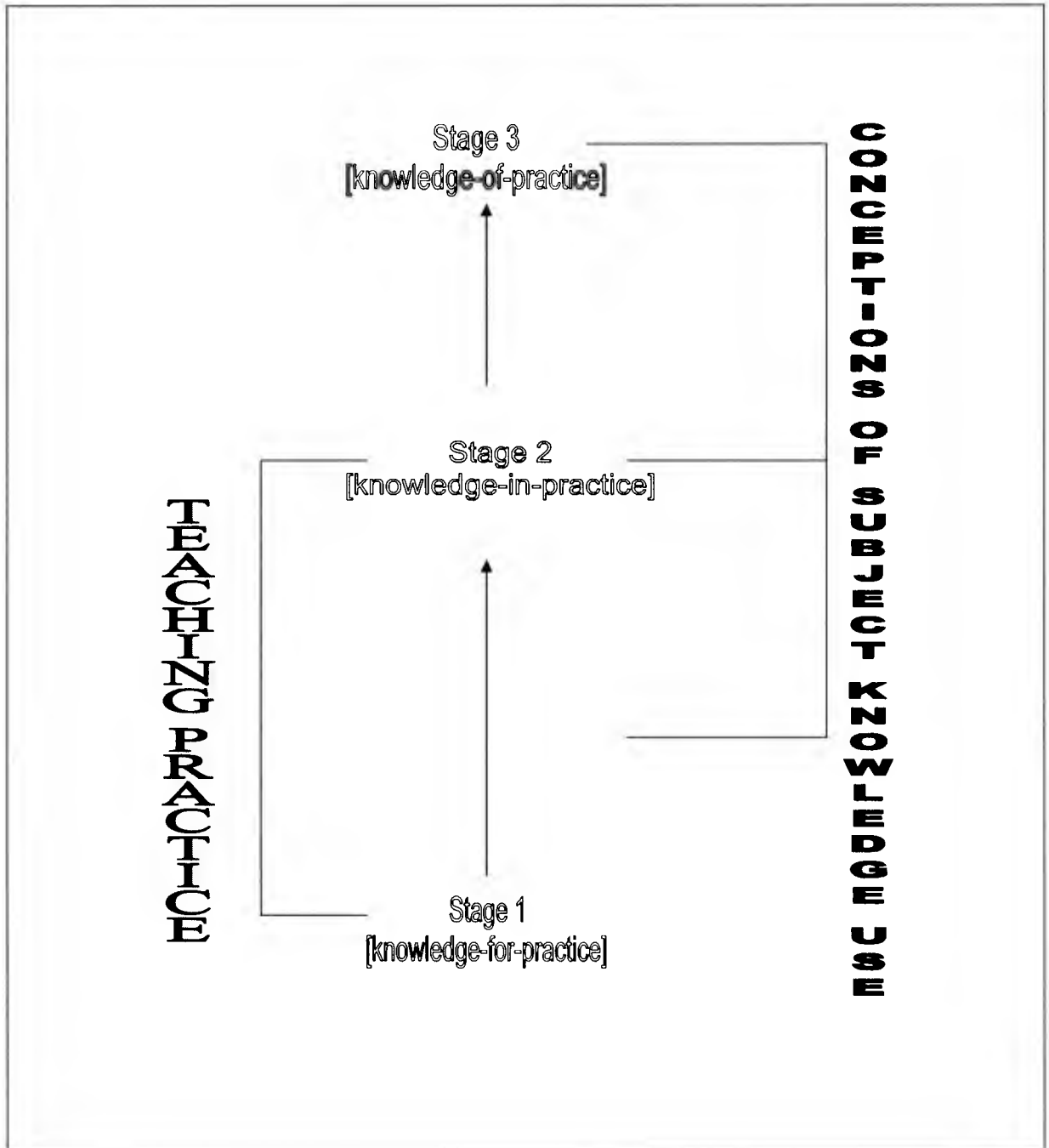
- a) What is the relationship between pre-service teachers' conceptions of subject knowledge and how they want to teach economics and commerce?
- b) How do pre-service teachers teach economics and commerce in practice?
- c) What are the conceptions of pre-service teachers in using their specialist subject knowledge when teaching economics and commerce?

The conceptual framework of teacher learning (Cochran-Smith & Lytle, 1999) has enabled me to create a research design that helped me unpack the conceptions of pre-service teachers' knowledge of teaching the subject knowledge. The research design is summarised in the figure below. The figure shows that the main focus of my study is pre-service teachers' conceptions of subject knowledge use. It also shows that both stages one and two are carried out during the teaching practice period and stage three is carried out after the teaching practice.

The instruments used for data collection in all the three stages are interviews and lesson observations. The interviews and lesson observations help to sort and make sense of the pre-service teachers' ways of representing their subject knowledge to their pupils. The interview questions and observation schedule are modified and adapted from three sources: Hulshof & Verloop (2002), Cochran-Smith and Lytle (1999), Shulman (1987) and Grossman (1990). The purpose of this modification is to fit the framework of the research design.

The data collected from all three stages of research are linked and developed. Gradually, the concepts form small generalizations that cover the consistencies in the data. For validity, Miles and Huberman (1994) emphasize that these generalizations can be linked to a formalized body of knowledge in the form of theories.

Figure 3.5: Research Design



To justify that my research design is based upon my ontological and epistemological stance which is that of transcendental realism, I have investigated pre-service teachers' experiences of the world around them. Their experiences are real, apparent and situational. I justify that my research design takes into consideration knowledge that involves belief, traditions, practices and assumptions and my research is an attempt to explain them. The epistemology in my research design acknowledges the complexities of dealing with the epistemology of pre-service teachers' knowledge, beliefs and thinking. Overall, my research design explores Bhaskar's (1998) three domains of transcendental realism: the mechanisms whereby pre-service teachers' beliefs, traditions, practices and assumptions influencing the way they teach (the real), the pre-service teachers' teaching, learning and reflecting the events (the actual), and the pre-service teachers' experiences of learning to teach during teaching practice (the empirical).

My research design above consists of three stages of research. These stages explore the relationship between knowledge and practice for teacher learning. They are summarised in the table below which describes the different stages of the research design, the purposes that they respond to and the subsequent research activities that followed. I justify that by adopting a methodological approach that is hermeneutic, my research design critically examines the nature of the relationship between the pre-service teachers' understanding of economics, the way they teach economics and commerce and their understanding of teaching within the context of practice. This process of sense-making will enable me to then construct the relationships between pre-service teachers' conceptions of subject knowledge and their conceptions of teaching within the particular

context, that is, the teaching practice. In other words, my research design addresses the three questions of transcendental realism (Scott, 2000, p.16), “What is the nature of the reality which we are attempting to find out about? How can we know it? And what are the implications of answers to these first two questions for our choice of methods if we engage in empirical research?”. My research design aims to avoid the common fallacy in educational research that is to claim that what practitioners say they did is the same as what actually happened (Scott, 2000).

Table 3.5: Research Design

Knowledge-Practice	Stages of Research	Purposes	Research Activities
Knowledge-for-practice	Stage 1 1) Pre-service teachers' conceptions of subject knowledge. 2) Pre-service teachers' conceptions of teaching approaches.	This stage of research aims to examine the relationship of pre-service teachers' conceptions of subject knowledge and pre-service teachers' conceptions of how to teach it.	Interview with pre-service teachers. [Interview 1]
Knowledge-in-practice	Stage 2 Pre-service teachers' stated approaches of using their subject knowledge to teach a specific topic.	This stage of research aims to examine the relationship of the strategies and methods of teaching the subject knowledge in the specific contexts that they are working and the influences on their way of teaching.	Interview with pre-service teachers before [Interview 2.1] and after their lessons [Interview 2.2], Lesson observations, Planning documents.
Knowledge-of-practice	Stage 3 Pre-service teachers' conceptions of their experience of using their subject knowledge to teach the school subject.	This stage of research aims to examine the pre-service teachers' experience of using their subject knowledge in teaching.	Follow-up interviews with pre-service teachers after their teaching practice [Interview 3].

3.5.1 Stage One of Research (*Knowledge-for-practice*)

The first stage of the research is intended to answer the first operational research question: *'What is the nature of the relationship between a pre-service teacher's understanding of economics and the way they teach economics and commerce?'* The focus of this stage of research is on pre-service teachers' conceptions of subject knowledge and their conceptions of teaching methods. Their conceptions provide an understanding of their experience of the influences on their practice. This is achieved by encouraging pre-service teachers to articulate their representation of knowledge. The representation of each pre-service teacher's influences from this interview is correlated against the responses given by other pre-service teachers. The results from this stage of research would be an account from each pre-service teacher that he or she has a certain ideological knowledge and belief about the nature of economics as subject knowledge, an assumption of knowledge of how to teach economics/commerce better and an interpretation of using that knowledge.

The instruments used in this first stage of research are interviews. The interviews are constructed in order to get pre-service teachers' representation of their knowledge of economics and the teaching of economics and commerce. The questions for the interview process are guided by the list of contexts below:

- Their perception of economics and commerce as school subjects
- Their personal life and experience of studying economics in their secondary school
- Their experience of studying economics at the university

- Their experience of studying the pedagogical courses at the university
- Their motivation for teaching and teaching economics
- Their assumptions of how to teach economics better and the sources for that knowledge
- Their interpretation of using this knowledge in practice

The questions asked during the interviews focus on pre-service teachers' conceptions of knowledge-for-practice. The questions asked pre-service teachers to describe and reflect upon their experiences and views. The data resulting from the interviews represent what the pre-service teachers understand on the teaching subjects; economics and commerce and their views of teaching. These collected data is then further explored in the second and third stages of research.

STAGE ONE

Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

First I want to talk about the study of Economics as a discipline.

1. Can you tell me about your background in economics?
Tell me also about your undergraduate courses: Favourite and least favourite.
2. What do you feel are your strengths in economics? What do you feel are your weaknesses in economics?
3. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?
4. Who was your best and worst economics teacher you ever had? Tell me about them. [Probe for their way of teaching economics]

Now I would like to talk to you as an economics teacher

5. What made you decide to become an economics teacher? [Probe for both reasons for teaching and reasons for teaching economics]
6. Now that you are an economics teacher or commerce teacher, what are your goals for your students?
7. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students? [probe for economics knowledge and the way of teaching]
8. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you use? Are you familiar with the topics and books? Have you read them before? How are the students in your classes?

Now I'd like to talk to you as a pre-service teacher of economics/commerce

9. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]
10. What other experiences have you had that have affected how you think about teaching economics/commerce?

Figure 3.5.1: Interview One

3.5.2 Stage Two of Research (*knowledge-in-practice*)

The second stage is important in answering the second operational question: *'How do pre-service teachers teach economics and commerce in practice, in the particular context and phenomena?'*

Their conceptions of knowledge-in-practice are emphasized here. This stage describes pre-service teachers' experience of teaching and the influences on their teaching. At this

stage of research, the teachers are encouraged to articulate their understanding of the influences by discussing them with myself as the interviewer. They are encouraged to articulate their way of representing the subject knowledge for their pupils' understanding and the sources for their representations.

The instruments used in this stage consist of both interviews and lesson observations. The aim of the use of these instruments for data collection is to verify pre-service teachers' interpretation of their relationship between subject knowledge and the teaching of subject knowledge. In other words, in this second stage, pre-service teachers are interviewed and observed in order to examine their ways of representing their subject knowledge to their pupils.

Data collection for this stage consists of:

- interview questions before a lesson
- interview questions after a lesson
- observation of a lesson
- documentation of lesson planning

STAGE TWO

Interview 2: Teaching a Unit

2.1 Now, I would like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

- 1) How do you prepare your lesson?
- 2) Do you have to simplify the topic for teaching?
[Probe for their ways of interpreting and analyzing the topic]
- 3) How do you structure your lesson?
[Probe for the methods/techniques used to make the lesson more explicit to their students]
- 4) Where did you get your resources for the topic?
[Probe for other resources other than textbooks]
- 5) What are your aims in the lesson?
[Probe: What do you want to achieve?]

2.2 Now, I'd like to talk to you about how you taught just now (after lesson observation)

- 6) How do you feel about the lesson?
- 7) Were you pleased with the way the lesson went? Did it work out the way you had expected?
- 8) If you are doing the lesson again, is there anything you would like to change?
- 9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?
- 10) Do you think you have learned anything new about teaching, from the lesson?
- 11) Do you think that your students have understood what you have taught just now? How do you know?
- 12) Have the students enjoyed learning the topic? How do you know?
- 13) Is it easy or difficult to teach the topic? [Probe for reasons]

Figure 3.5.2: Interview 2

The focus of the interview questions before the lesson is to examine a pre-service teacher's conceptions of how he/she is going to teach the topic in the classroom. Lesson observation examines his/her way of representing the topic to his/her pupils in practice.

After the lesson, the pre-service teachers are interviewed again and asked to reflect on the way they have taught the topic for their pupils' understanding (See figure 3.5.2). Their responses from the interviews are then correlated against the lesson observations and their planning documentation. This stage of research is exploratory in that the pre-service teacher is able to define what they believe is the nature of their relationship with their

subject knowledge and how they teach. A result from this stage would be an account from each teacher that they have a certain belief about how they choose to teach the subject knowledge when situated in their context.

The instruments at this stage are guided by the four components of knowledge transformation: 'preparation', 'representation', 'selection', and 'adaptation and tailoring for students' (See Shulman, 1987). These components are important as they represent the way pre-service teachers interpret their knowledge for teaching: their preparation for the lesson which involves interpretation and analysis of texts, structuring lessons, development of a curricular repertoire, and clarification of lesson objectives; their use of a representational repertoire which includes analogies, examples, explanations, and others; their selection of teaching methods which includes organizing and managing these methods for teaching; and their consideration of their students' conceptions, misconceptions, preconceptions, difficulties, understanding, language, culture, gender, age, ability, and interests. All of these components for teaching are explored in this second stage with the help of the instruments.

At this second stage of research, the pre-service teachers are encouraged to relate their accounts in the first stage of research with their experience in this stage. In consequence, this stage of research examines further the relationship of pre-service teachers' conceptions of subject knowledge and teaching and is important for identifying reflective questions to be applied at the third stage.

3.5.3 Third Stage of Research (*knowledge-of-practice*)

The findings from the first and second stages of research inform the third stage of research which focuses more on the nature of pre-service teachers' learning to teach their subject knowledge in their unique context. The third stage of research intends to answer the third operational question: *'What are the conceptions of pre-service teachers in using their specialist subject knowledge when teaching economics and commerce?'* This third stage of research aims to examine the relationships that influence pre-service teachers' experience of learning to teach the subject knowledge within the situated context.

This third stage of research is concerned mostly with the pre-service teachers' conceptions of knowledge-of-practice. Pre-service teachers articulate their experience of teaching their subject knowledge, interpret their experience of learning to teach and define their knowledge and beliefs that they assume have guided them to teach the subject knowledge better. This stage of research highlights the pre-service teachers' experience of using their knowledge and beliefs in teaching the subject knowledge in the school.

This stage of research follows the pre-service teachers after they have ended their teaching practice. The instruments used are interviews. The interviews seek to understand the nature of the relationship between a pre-service teacher's understanding of economics and how this affects the decisions that they make about teaching economics and commerce within their context. The interviews focus on pre-service teachers'

reflective experience of the phenomenon, that is, their experience of learning to use their economics knowledge for teaching (see figure 3.5.3).

The expected outcome from this research design is the developing conceptions of teaching and learning experiences held by a group of pre-service teachers. The outcome would contribute to the understanding of pre-service teachers' experience of learning to teach and would give insights to plan teacher education programmes which would result in a greater understanding of teaching competence.

Figure 3.5.3: Interview 3

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

- 1) What was your favourite or least favourite topic to teach? Why?
- 2) What was your favourite resource?
- 3) What was the best lesson that you had taught? Why?
- 4) How did you prepare to teach topics that you haven't studied?
- 5) Did you relate local examples in your lessons? How?
(Probe: Did you relate to your students' experience?)
- 6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand?

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

- 7) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]
- 8) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]
- 9) What else did you learn from your teaching practice? [probe for the role of schools as community]
- 10) Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]
- 11) What other experiences have you had that have affected how you think about teaching economics/commerce?
- 12) Now that you have had experience of teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/commerce?
- 13) Finally, from your point of view, tell me what does it mean to learn economics?

A summary of my research plan

The beginning of my research started with a pilot study which was carried out in August 2004 (described in Appendix 1). In this pilot study, data was collected using interviews and lesson observations. The aim of the pilot study was to test the research instruments. My main findings were that the pre-lesson interview showed me the way the teachers planned to represent the knowledge taught, and the sources for that representation of knowledge; the post-lesson interview revealed the way the teachers reflected on their way of representing their knowledge to their students; and the lesson observation helped me to discover the teachers' way of representing their knowledge in the classroom.

After this pilot study, I re-thought the research design (appendix 1, 4.5) and the interview questions (appendix 1, 4.6). The first stage of research which involved the interviews was carried out in January 2005 (3.5.1). The second stage of research was carried out between February and March 2005 (3.5.2). In this second stage, interviews and lesson observations were carried out during the teaching practice period. The third stage of research was carried out after the teaching practice, that is, between October and November 2005 (3.5.3). In this third stage, the instrument used was interviews. Data from this research was collected in Brunei. Data analysis, discussion of results and the rest of the writing up process were done after data collection.

3.6 Instruments

The instruments used in this study are semi-structured interviews and lesson observations. The use of interviews with the pre-service teachers sought to discover and

make sense of their conceptions and pre-conceptions of the way they use their subject knowledge in teaching. The interviews elicited different kinds of responses from the pre-service teachers as they reflected and discussed their experiences of using their subject knowledge to teach. As a result, the pre-service teachers' tacit or implicit knowledge of teaching became explicit. In the interviews, I had asked probing questions, such as, 'Is there anything else you want to add?' and 'What do you mean?' to encourage pre-service teachers to describe and explain more fully their understanding on teaching. It was a major concern for me as a teacher educator not to introduce my own ideas of teaching and learning into the dialogue with the pre-service teachers. For example, I did not argue with their ideas and I did not make any suggestions or criticisms about their way of teaching.

Although interviews, as instruments, helped me to make sense and discover pre-service teachers' conceptions of teaching, in order to understand better the way pre-service teachers teach, lesson observations as instruments were also used in this study. Lesson observations allowed me to gain a more objective view of the reality being investigated such as giving me access to see the interactions between a teacher and the pupils in the classroom. During the whole class teaching, I sat at the back of the classroom, noting the pre-service teachers' and pupils' dialogues. I ignored behaviour management issues but instead focussed on the way pre-service teachers represented the teaching content to their pupils. I noted down their utterances, actions and interactions with the pupils. I have used lesson observation notes (an example is provided in the Appendices) to document the pre-service teachers' experiences in teaching.

However, the drawback of lesson observation is that of my own potential preconceptions. The solution is to 'bracket' my own preconceptions from a background of teaching and learning and aim to represent a reality which is not dependent on me. In other words, I as the observer, detach myself from the social setting being investigated. Therefore, my role in my research is as an observer in the classroom. This role as a natural observer allows me to gain a more objective view of the reality being investigated and a comprehensive view of how the pre-service teachers teach in the classroom.

3.7 Participants

The participants in this study are pre-service teachers who are in their final year of their Bachelor of Arts in Education degree programme (B.A. Education programme). They are pre-service teachers learning economics education at the local university: the University of Brunei Darussalam. Their conceptions of using their specialist subject of economics in secondary schools during their teaching practice are sought in this study.

During teaching practice, the pre-service teachers are sent to teach at their secondary school placement. They are required to teach for 14 weeks in the same school, observed and mentored by cooperating teachers from the school and supervisors from the university. They have to teach school subjects as required by the school authorities. It is not surprising to find that in schools, pre-service teachers of economics are usually asked to teach school subjects other than economics. In this research, only pre-service teachers of economics who teach these two school subjects: economics and commerce were approached to participate in this research. Commerce as a school subject is chosen

because its content is related to economics. Therefore, in this research, pre-service teachers' conceptions of using economics to teach economics are compared with pre-service teachers' conceptions of using economics to teach commerce.

During this research, there were only 15 economics pre-service teachers in total who were teaching economics and/or commerce for their teaching practice. I had approached all of the economics pre-service teachers but only 10 of them volunteered to participate in my research. These pre-service teachers were allocated to different schools across the country and they were assigned to teach school subjects by the respective schools. Therefore, it was beyond my capacity in this research to control the number of student/students that the pre-service teachers had to teach during their teaching practice or the availability of the pre-service teachers for my research, for example, the time for interviewing and lesson observations. However, I justified that it was important that I interviewed and observed the 10 pre-service teachers because in this research, I was investigating the use of subject knowledge by economics pre-service teachers in the duration of their teaching practice.

A case study of each pre-service teacher is adopted as this study involves empirical investigation of an individual view of teaching, such as, a pre-service teacher's perspective on why he/she teaches economics or commerce in the way he/she does, his/her explanations for why he/she believes this is the case, and to what extent this is influenced by his/her subject knowledge. A case study is described by Robson (2002, p. 146) as:

“...a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence”.

Therefore, by adopting a case study for each pre-service teacher in this research, I explore the nature of the way pre-service teachers represent their subject knowledge for teaching.

3.8 A case study approach

Yin (2003) states that the validity and generalisability of a case study should come from being able to replicate the results of the case study. He argues that any generalisation about a population created from a single case study is not statistically valid. However, Cohen and Manion (1994) argue that case studies should create generalisations from a single case or multiple cases about the population as a whole. Stake (1995) argues that any generalisations made about cases should take the form of naturalistic generalisations: an intuitive conclusion about the case that comes from the researcher’s intimate knowledge of it. The validity and generalisability in my study are the results of the case study from my research design which involves empirical investigation of a particular contemporary phenomenon, that is, pre-service teachers’ perspective on why they teach economics or commerce in the way they do, their explanations for why they believe this is the case, and to what extent this is influenced by their subject knowledge and to contextualise that against a full description of their practice. I justify again that by adopting a case study approach, the pre-service teachers’ experiences are real, apparent and situational (transcendental realism).

A case study approach focuses on the relationship between context and phenomenon, and facilitates the in-depth analysis of the phenomena in relation to its context. Brown and Dowling (1998) criticize that the relationship between context and phenomena is not the aim of all research. In my research design, I take into consideration the relationship between context and phenomenon as my research aims to explain the pre-service teachers' knowledge that involves belief, traditions, practices and assumptions. By adopting a case study approach for my research design, I was able to explore Bhaskar's (1998) three domains of transcendental realism: the mechanisms whereby pre-service teachers' beliefs, traditions, practices and assumptions influence the way they teach (the real), the pre-service teachers' teaching, learning and reflecting on events (the actual), and the pre-service teachers' experiences of learning to teach during teaching practice (the empirical).

Stake (1995) emphasizes an interpretative approach towards the case study method. But this approach has also been criticised for not necessarily being applicable to other cases and therefore raises the question of the value of this type of research (Tripp, 1985). However, Stenhouse (1985) rejects the notions of statistical, predictive, retrospective or even naturalistic generalisations due to the unique phenomenon of the case studies. Consequently, in my research, I justify that by adopting a case study approach, the nature of the relationship between the pre-service teachers' understanding of economics, the way they teach economics and commerce and their understanding of teaching within the context of practice are critically examined (hermeneutic approach).

3.9 Analysis of the data

I will analyse the data using a grounded theory approach. Grounded theory is a systematic generation of theory from data that contains both inductive and deductive thinking. One goal of a grounded theory is to formulate hypotheses based on conceptual ideas. Others may try to verify the hypotheses that are generated by constantly comparing conceptualized data on different levels of abstraction, and these comparisons contain deductive steps. Another goal of a grounded theory is to discover the participants' main concern and how they continually try to resolve it. The questions that I keep returning to are "What is going on?" and "What is the main problem of the participants and how are they trying to solve it?". These questions will be answered by the core variable and its sub-cores and properties in due course. Transcendental realists argue that the world is complex and stratified (Archer et al., 1998), therefore grounded theory does not aim for the "truth" but to conceptualize what is going on by using empirical data (Glaser & Strauss, 1967). Grounded theory analyses data which aims to address questions of epistemology and ontology in transcendental realism: "*What is the nature of the reality which we are attempting to find out about? How can we know it? And what are the implications of answers to these first two questions for our choice of methods if we engage in empirical research?*" (Scott, 2000, p.16).

Grounded theory explores the three domains of transcendental realism; the real, the actual and the empirical.

Figure 3.9.1: The three domains of transcendental realism

	Domain of the Real	Domain of the Actual	Domain of the Empirical
Mechanisms	✓		
Events	✓	✓	
Experiences	✓	✓	✓

Source: Bhaskar (1998: 41)

The interaction of generative mechanisms gives rise to *events*, which Bhaskar (1998: 41) describes as the domain of the actual, where things actually happen. Events are always co-determined by multiple stratified generative mechanisms, and as such, outcomes cannot be fully predicted in advance. In my research design, the ‘real’ is the mechanisms whereby pre-service teachers’ beliefs, traditions, practices and assumptions influence the way they teach; the ‘actual’ is the pre-service teachers’ teaching, learning and reflecting the events; and the ‘empirical’ is the pre-service teachers’ experiences of learning to teach during teaching practice.

There are four stages of analysis in grounded theory (Glaser & Strauss, 1967):

Stage	Purpose
<i>Codes</i>	Identifying anchors that allow the key points of the data to be gathered
<i>Concepts</i>	Collections of codes of similar content that allows the data to be grouped
<i>Categories</i>	Broad groups of similar concepts that are used to generate a theory
<i>Theory</i>	A collection of explanations that explain the subject of the research

Figure 3.9.2: The four stages of analysis in grounded theory

The data collected from my research design: ‘knowledge-for-practice’, ‘knowledge-in-practice’ and ‘knowledge-of-practice’ were analysed in the above four stages. In addition, I have used ‘theoretical sampling’, that is, deciding whom to interview or what to observe next according to the state of theory generation. This implied that I started my data analysis with the first interview, that is, the first stage in my research design (knowledge-for-practice). I wrote down memos and hypotheses early before I continued my data analysis with the second stage (knowledge-in-practice) and then later, the third stage of my research design (knowledge-of-practice). However, Bernstein (2000) argued that theoretical knowledge differs from everyday knowledge because each is embedded in a different system of meaning and each has a different structure. He characterised abstract theoretical knowledge as *vertical discourse*, and everyday or ‘mundane’ knowledge as *horizontal discourse*. Therefore, in my analysis, a ‘theoretical sensitive coding’ is applied, that is, generating theoretically strong concepts from the data to explain the phenomenon and comparing between phenomena and contexts to make the theory strong (Glaser & Strauss, 1967).

3.10 Validity and Reliability

It is important that my study addresses the three aspects of research validity: ‘content-related validity’, ‘methodological validity’ and ‘communicative validity’ (Booth, 1992). First, my study is ‘content-related’ as it has a sound understanding of the subject content, in that I seek ways of understanding the topics taken up in the interviews. As a teacher educator in economics education, I have discussed the development of economic understanding arising from this study with academics who specialise in this area.

Second, my research has 'methodological validity': the collection of data is undertaken in a deep and open mode, and the analysis continually questions the data in the search for categories of description. In this study, the methodological validity is high due to the choice of the participants for the study. The participants consist of ten volunteered economics pre-service students enrolled on the Bachelor of Arts in Education programme in a particular semester. Data is collected using interviews and observations. This is understood by the participants. The collected data focus on the pre-service teachers' experience of teaching economics or commerce. I use a reflective approach with the interviews to further explore pre-service teachers' experience. Throughout this study, the search for the meaning of teaching subject knowledge held by pre-service teachers is explored.

Third, my research has 'communicative validity' as it is important that the results and conclusions of this study are discussed with academic colleagues in the field of teacher education. The results and conclusion of this study should be communicable to the research community of economics education.

In this study, I have to overcome my assumptions and preconceptions of this research by using a reflective stance. I have taken measures to avoid inaccurate description of this research by using audiotapes for interviews and videotapes for observations. The data from interviews and observations are triangulated and therefore overcome the threats to validity.

The reliability of results of this study is achieved through triangulation. Data is collected using different methods, interviews and observations and these methods are carried out at different stages of research. These methods are carried out on pre-service teachers that belong in the same cohort group: BA Education in economics education during a particular time and context, that is, their teaching practice. Consequently, the findings are generalized and compared to the categories of description with those obtained by other studies in the field of teacher education.

3.11 Ethics

In this research, I conform to the British Educational Research Association (BERA) guidelines at all stages of my research. I sought permissions from the ministry of education in Brunei (Appendix 14), the University of Brunei (Appendix 15 and Appendix 16), and the supervisors (Appendix 17). I assured the confidentiality of identities: pre-service teachers and schools are anonymous (Appendix 18). I did not know any of the pre-service teachers and I had to approach them in person by going to schools. I explained to the pre-service teachers about the research design which involved interviews and observations of their teaching. I ensured that the pre-service teachers were not forced to participate and they had the right to withdraw from this research if they chose to. The pre-service teachers were not my tutees and I introduced myself as a researcher for my PhD.

I am aware of the ethical issues arising out of this research. Firstly, the potential impact of the research on the pre-service teachers themselves. The frequent interviews with the

pre-service teachers are likely to increase their awareness of their actions and challenge their thinking about their own development as teachers. This indeed, might have a positive influence on the self-awareness of the pre-service teachers. Another issue with this research is the interpretation of the findings. The pre-service teachers' discussions about their experiences of learning to teach may reveal personal and private matters that would normally not be discussed, particularly with a stranger like myself. Therefore, the findings are interpreted as knowledge constructed to make sense of teaching and learning experiences.

3.12 Conclusion

My research adopts an interpretative methodology with the underlying assumptions of a transcendental realist's epistemology and ontology. Data is collected from interviews, lesson observations and documents. My research is useful as it helps me to understand the different conceptions of learning to teach by pre-service teachers and the way pre-service teachers interpret their use of subject knowledge in teaching. In this research, I need to be 'reflective' to understand and make sense of the relationship between subject knowledge and its use in teaching. I need to explore a complex reality which does not fit neatly into pre-established categories. Therefore, in this research, the view of knowledge is to question the 'reality' of what is represented by the different conceptions.

Chapter 4

Knowledge for practice

4.1 Introduction

This chapter reports on the first stage of my primary research which is intended to answer my first subsidiary research question: ‘What is the nature of the relationship between a pre-service teacher’s conceptions of subject knowledge and the way they want to teach economics and commerce?’ The focus of this stage of research is on pre-service teachers’ conceptions of subject knowledge and their teaching methods that they wish to use in their economics classrooms. The pre-service teachers’ responses to my questions provide data which will illuminate their conceptions of what it is to be an economics teacher. As explained in the methodology chapter, I use semi-structured interviews as my research instrument for this phase of the research. Through the interviews, I attempt to gain knowledge of the pre-service teachers’ ideological beliefs about the nature of ‘economics knowledge’ and its possible representation in the secondary economics classroom. Specifically, my semi-structured interviews explore the following:

- The pre-service teachers’ conceptions of economics as subject knowledge
- The pre-service teachers’ personal life and experience studying economics in their secondary school
- The pre-service teachers’ experience of studying economics at the university
- The pre-service teachers’ motivation for teaching and teaching economics

The questions asked during the interviews focus on pre-service teachers' conceptions of knowledge-for-practice. In other words, the interview questions ask pre-service teachers to describe and reflect their experiences and view of economics and commerce and the way they want to teach these subjects. The data obtained is further explored and analysed in chapter seven.

I have divided this chapter into two sections. The first section reports on pre-service teachers' conceptions of economics as subject knowledge. The second section reports on pre-service teachers' conceptions of teaching economics and commerce.

4.2 Section One: Pre-service teachers' conceptions of economics as subject knowledge

In analysing this section one, I am offering two stages of data analysis. First, I identify the conceptions of subject knowledge, that is, economics and commerce, by the pre-service teachers and secondly, I categorize the pre-service teachers' conceptions to determine their views on subject knowledge, that is, economics and commerce.

As a result of the analysis, I report the following five sub-sections, a) a profile of the pre-service teachers with regards to their expertise in economics and commerce, b) a description of the pre-service teachers' conceptions of economics as subject knowledge in their university degree, and c) a description of the pre-service teachers' conceptions of

economics and commerce as school subjects, d) a description of pre-service teachers' conceptions of the way they want to teach and e) the analysis and discussion of this chapter.

4.2.1 Profile of pre-service teachers in economics education

A profile of the pre-service teachers with regards to their expertise in economics and business education is shown in table 4.2.1. I categorised the pre-service teachers' education in economics and business education into four levels; lower secondary (13-15 year olds), O-levels (16-17 year olds), A-levels (18-19 year old) and economics at UBD (University Brunei Darussalam). I categorised the subjects that the pre-service teachers had enrolled when they were in secondary schools into three; commerce (lower secondary and O-levels), economics (O-levels, A-levels and Degree level) and management of business (M.O.B. A-levels). In table 4.2.1, I used pseudonyms to represent the pre-service teachers in this study.

Table 4.2.1: Pre-service teachers' qualifications in economics and business education

	Name (Pseudonym)	Commerce Lower secondary	Commercial Studies O-level	Economics O-level	Economics A-level	M.O.B. A-level	Economics Major/Minor (UBD)
1.	Ahmad	Yes	No	Yes	Yes	Yes	Major
2.	Lisa	No	No	Yes	No	Yes	Major
3.	Noraini	Yes	Yes	Yes	No	Yes	Major
4.	Nadia	No	No	No	No	Yes	Major
5.	Salmah	No	No	No	No	Yes	Major
6.	Charles	No	No	No	No	No	Minor
7.	Mona	No	No	Yes	No	Yes	Major
8.	Munira	Yes	No	Yes	Yes	No	Major
9.	Sabrina	No	No	No	No	Yes	Major
10.	Zahrah	Yes	No	No	No	No	Minor

Table 4.2.1, shows ten economics pre-service teachers; eight pre-service teachers took economics as their major subject and two pre-service teachers took economics as their minor subject at the university. All these pre-service teachers were enrolled in the Bachelor of Education Programme at the University of Brunei Darussalam.

In this study, there were five pre-service teachers who had economics O-level but only two of them took economics A-level. The two pre-service teachers who had A-level economics were Ahmad and Munira. They shared a similar profile where they took commerce in their lower secondary, economics O-level in their upper secondary, economics A-level in college and later, at the university, they took economics as their major subject for their Bachelor of Education programme.

There were seven pre-service teachers who had Management of Business A-levels. Among these seven pre-service teachers, there were four who had O-level economics. These four pre-service teachers chose to take Management of Business for their A-levels. All the seven pre-service teachers who had A-level in management of business took economics as their major subject at the university. However, there were three who had neither economics O-level nor economics A-level. These pre-service teachers were Nadia, Salmah, and Sabrina. They were only acquainted with economics at university.

In this study, Charles and Zahrah were the only pre-service teachers who took economics as their minor subject at the university. Both of them had neither economics O-level nor A-level. They did not even take management of business as their A-level subject. The

only economics background that Zahrah had was that she took commerce in her lower secondary school. However, Charles did not have any economics background at all; he did not even take any commerce in his lower secondary years. Both Charles and Zahrah only studied economics when they were at the university.

4.2.2 Pre-service teachers' conceptions of economics as subject knowledge

The pre-service teachers' conceptions of economics as subject knowledge are categorised into two: 4.2.2.1 Pre-service teachers' conceptions of university economics (with regards to their expertise) for teaching and 4.2.2.2 Pre-service teachers' conceptions of economics and commerce as school subjects. These categories of conceptions by pre-service teachers are described to determine their conceptions of economics as subject knowledge.

The pre-service teachers' interviews were collected in two stages, 1) within the duration of their teaching practice and 2) after they had finished their teaching practice. The purpose of the interviews was for the pre-service teachers to reflect upon their experience of teaching. I now report verbatim on the pre-service teacher' responses:

Salmah

Salmah expressed her view that economics at the university was useful for their personal knowledge but not for teaching,

“Ubd¹ economics is helpful because we are doing degrees but for teaching, I have to forget about it and concentrate on basic economics. What I learnt from FBEP, some of the courses are not relevant to what we are going to do in the future. For example, we tend to revise before our TP². But we found that ‘Islamic economics’ is not applicable in teaching. The course is too broad. We tend to forget that the ‘low level’ economics is the one that is applicable in this school. Honestly, some related. But at UBD, the knowledge is too high like labour economics. And then when I go to the school, I find that its low knowledge. I find it easy to understand. I have to recall. But I have to read again. I am familiar with economics content because I teach tuition classes during my 3rd year at UBD. So luckily commerce is easy to understand, it is practical and common sense. UBD economics is helpful because we are doing degrees but for teaching, I have to forget about it and concentrate on the basic economics”

Salmah reported to me that for economics topics like economic system and the law of diminishing return, she found difficult to apply the theories and find examples for the students.

“Some parts (economics) require memorising because the topics are not related to real life, for example, economic system and the law of diminishing return. So

¹ UBD: University of Brunei Darussalam

² TP: Teaching Practices

how am I going to apply? There's no example. Economics need more writing. Sometimes students don't like to write, so that's the problem. I don't have problems with language because my students are bright".

Salmah's opinion of commerce,

"Luckily commerce is easy to understand, its practical and common sense"

Nadia

Nadia said, *"The students need to read and explain in English. And they find it difficult to explain. I asked them to use their own words so that they can remember easily and give their own examples. So far, some find economics easy such as the economic system but others find economics difficult"*.

Nadia also stated that, *"Students find economics boring because the teacher who taught before me just gave them handouts and talked. No activity. So students don't feel motivated and they don't understand"*

Noraini

Noraini argued that the economics courses at FBEP were not useful for teaching economics in schools, *"In FBEP, the knowledge is quite broad. It is broad and deep and not really useful except gives us a little bit of extra information. In FBEP, it's just more like gaining knowledge not practicing what we are supposed to be doing"*.

Noraini stated that commerce is about studying business, *“For me, when I try to teach commerce, I want them to feel how business is going on, not just read from a book, because they might not understand. Some of the topics are difficult but once you get them to do it and think about it, it is not hard”*.

However, she argued that commerce might be difficult for form one students (12-13 years old),

“For the form one, it was difficult was because it was a new subject from primary six. There wasn't any commerce or whatever, so the introduction was very vital. Without a proper base, they could just not understand the whole thing. I think what is difficult is that they must know the base before they can go out. In that school, commerce is only given to good classes, so form 1a, form 1b, not the weak ones, so I don't have problem with English”.

Lisa

Lisa argued that the economics that she learned at the university had helped her teach economics topics in secondary schools.

“At FBEP³, the economics that we learned were more advanced compared to the economics that I teach in this school. But it's good. At least I have a much wider and deeper knowledge of the topics so I'm able to teach the simple ones. Easy for me to apply”.

³ FBEP: Faculty of Business, Economics and Public Policy

Lisa argued that economics was not an easy subject because pupils had difficulty in understanding the specialized economics terms. She had to use Malay language to explain the economics terms to the pupils.

“Language is difficult. Economics is not an easy subject. Students need to write essays. So if they are not good in English, how are they going to write the essays? Sometimes understanding the questions is also a problem like MCQ⁴, its tough also. You need to have good English to understand the question. Also it depends on whether the students want to study. It’s not like geography, they have learnt it before. Like economics, many terms are new. Lets say, if they haven’t learned commerce, so all economics term are kind of new to them. Also sometimes I use Malay as well because they are not good at English. Sometimes the words I use in economics, they are quite technical. For example, let’s say the definition of division of labour. I have to give simple explanation in English, and sometimes I have to speak in Malay”.

Lisa also reported to me that economics was not enjoyable enough for the students.

“Sometimes I find that economics, the subject is not enjoyable enough for students. Because it is like calculation. For calculation, I think if you want me to teach the calculation part, you have to ask me to go through MOT⁵ Maths. Then I know what activity to give”.

⁴ MCQ: Multiple Choice Questions

⁵ MOT: Methods of Teaching. A pedagogy course at the university.

Ahmad

Ahmad stated that economics at the university level was too broad. Ahmad stated that O-levels economics is 'low' level of knowledge, *"For economics, the content is too broad because when I do the lesson plan, I have to go down to students' level, to O-level. So I have to think and go to that level"*.

Although Ahmad expressed that economics courses at the university were useful for teaching, he argued that the mathematical and statistical economics course studied at the university was not useful for teaching O-level economics. Ahmad did like this course but he had difficulty learning it at the university.

Ahmad said, *"Actually, learning economics at the university is useful because we have in depth knowledge of the topic, so when some students ask 'high knowledge' questions, we are able to answer their questions"*.

Ahmad also stated that, *"My least favourite was mathematical economics and statistical economics, for me, as a teacher teaching form 4 and form 5, it was complicated and not useful for teaching. It was also difficult"*.

Charles

Charles argued that economics at UBD was not applicable for teaching commerce in lower secondary classes but he found it easy to understand commerce content, *"Actually, I didn't have any background in commerce and economics. Even A-level, I only took*

MOB⁶, which I did poorly. But then, once I start teaching commerce, it was quite easy to understand. For commerce, I don't think I applied my knowledge that I learned at UBD. Because for commerce, it's a simple subject, where we use lots of common sense, but of course, we need a strong background, but then again, nothing much was used".

Charles argued that school commerce is difficult for students as they had difficulty in understanding the economics terms. To make it easier for students to understand the technical terms, Charles had to use Malay language to explain commerce content to the students.

"One typical problem is that the students are not interested and have no knowledge of the concepts, for example, when I asked them whether they have bank accounts, they said no, we don't have, but I asked them to ask their parents, and only then they know that they have an account. So if they are exposed to this environment, it is easier for them to answer. From my point of view, the terms and the names of the documents are quite long and difficult for them to understand. So it is a language problem. So to make it easier, I had to be bilingual. I had to use Malay to re-explain to them. So when they answer in Malay, I told them to answer in English. They are able to do it even though slowly".

Munira

Munira expressed her view that economics learned at the university was far more advanced for form one students (12-13 years old):

⁶ MOB: Management of Business, A-level subject.

“Actually, the economics that I learned at UBD is far more advanced. But the courses methods for teaching are very useful. It teaches you how to teach. But the economics subjects that I learned at FBEP were too advanced for form one commerce students”.

Mona

Mona stated that the economics notes that she got from her lecturer at UBD were useful when she taught economic diversification:

“Later I am going to teach them economic diversification. Actually, I want to find an activity for the students. But I can’t get it so I will just have to use my notes from the university because at UBD we did learn Brunei economics. So I just got the materials from our research previously on sustainable development of Brunei. So later when I teach it, I will allow the students to read all those. I have highlighted or underlined some important keywords. I would let them analyze the economy of Brunei situation. And also from the article, I want them to have their own view on how to cope with the situation of Brunei. The article is also to introduce economic diversification”.

However, Mona argued that some of the economics topics that they learned at the university could not be applied to school economics,

“I think at UBD, we try to learn in more detailed so that we can teach properly in classes but there are some topics that are not covered. Lets say ASEAN⁷ economy,

⁷ ASEAN: Association of Southeast Asian Nations. The country members are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.

I don't see any ASEAN economy in form 4⁸ and form 5⁹ in their text book, so we learn this for our personal knowledge, I don't think it applies to teaching in school"

Mona stated, *"Language is also a problem because sometimes students understand but they would simplify everything that they want to explain. But then again, in economics, they need to elaborate more, so this is difficult for them. Most of the key terms, I would highlight and so I would explain. And they would put it in their own words and we would check again what they wrote. I just gave them case studies but not essays. Initially, they give short sentences, but I encouraged them to elaborate more and they grab the ideas that when they answer case studies, they must not use short answers and they need to elaborate more"*.

Mona argued that students who did not take commerce before economics would find it difficult to understand economics. Mona would try to relate the economics with the students' daily lives and experience to make economics theories more understandable for the students:

"If they didn't take commerce in forms one, two and three, so they don't have any background on economics and initially, they find it hard to understand. And this makes teaching economics more difficult. So if this is the case, I will try to relate topics like scarcity to their daily lives and relate back to economics".

⁸ Form 4: 15-16 years old

⁹ Form 5: 16-17 years old

Sabrina

Sabrina argued that economics courses at UBD were advanced and not related to school commerce:

“Economics is not very related. Whatever I learned at the university, it is too complicated. Here it is really the basic. So I have to dig my form 4 and form 5 books. The knowledge from FBEP might help me in the future but at the moment, I just use simple knowledge”.

Sabrina reported to me that economics was difficult for students because economics use difficult English, theories, and mathematics:

“The theory part like understanding the terms is a problem for students. And then their English, it’s difficult for them to understand. So that’s why they memorise. Maybe for some, the calculation is easy but not all found it easy. If they can’t understand, I used a bit of Malay, but most of the time I used English. I used very simple English”.

4.2.2.1. Pre-service teachers' conception of university economics for teaching

I have categorised the pre-service teachers' responses which falls into the following groupings: i) economics at UBD were too advanced for teaching, ii) economics at UBD were useful for teaching, and iii) economics at UBD were not relevant for teaching.

First, I report the pre-service teachers' responses that the university economics is of a high level containing advanced and broad knowledge compared to school economics and commerce in schools. The pre-service teachers had expressed their views that economics from the university as 'high level' and school economics as 'low level'. It is my argument that pre-service teachers' knowledge of economics should enable them to teach school economics where their university economics should empower them to teach.

Second, I report that the pre-service teachers' conception of university economics as useful for teaching school economics. There were only three pre-service teachers, Ahmad, Lisa and Mona who expressed their views that their broad and in-depth knowledge of economics had helped them in teaching economics to school pupils.

Third, I report that the pre-service teachers' conception of university economics was that it is not relevant for teaching school economics. Ahmad, Lisa, Salmah, Charles, Noraini, and Sabrina argued that 'some of the economics topics learned at the university were not applicable for teaching in schools'. I argue that these pre-service teachers need to find ways to transform their economics knowledge so that is suitable for teaching school economics.

4.2.2.2. Pre-service teachers' conceptions of economics and commerce as school subjects

I have categorised the pre-service teachers' responses to economics and commerce as school subjects as follows: (i) school economics as 'low' level of economics knowledge, (ii) school economics as difficult for their students, (iii) school economics as boring for the students, (iv) school economics as 'no fun' for the students, (v) economics theories have to be related with students' real lives, (vi) commerce is about business, (vii) commerce is common-sense, (ix) commerce is easy to understand, and (x) commerce is a new subject for form one students.

It is my argument that the pre-service teachers' conceptions of economics and commerce as school subjects can affect the way they want to teach the subjects to their students. The pre-service teachers would find difficulties in transforming their knowledge for teaching if they don't really understand the teaching content. On the other hand, if the pre-service teachers understand the content, they would devise ways to transform their knowledge for their students' understanding and enjoyment of the lessons. However, the pre-service teachers' conception of school economics as 'low knowledge' seem to indicate that there is a tendency for the pre-service teachers to want to regurgitate their knowledge instead of forming new knowledge.

4.2.3 Summary and Discussion

All ten pre-service teachers that I interviewed had a bachelor's degree in education where economics was their chosen subject that they had to teach in secondary schools. Their specialised subject that they taught was economics in secondary schools. However, not all of them had studied economics as a subject prior to going to university.

A key issue is whether pre-university exposure to economics is significant in pre-service teachers' ability to teach economics effectively in secondary schools. The university economics course is designed to prepare pre-service teachers to teach economics in secondary schools. Many pre-service teachers expressed in answers to my interview questions that they feel unprepared to teach at secondary school level because they have not received suitable education. It begs the question: is the pre-service teachers' course sufficient for them to teach economics? If the pre-service teachers know their economics and understand pedagogical methods, they should be able to transform and create new knowledge appropriate for their students. It is apparent that they are not doing that. Therefore, in this early research, an issue of transformation, or rather a lack of it, is noticed here.

Six of the pre-service teachers, Lisa, Charles, Sabrina, Salmah, Nadia and Mona stated that economics as a school subject was conceptually difficult. They argued that economics was difficult for students to understand because of the specialized economics language. A compounding problem is that English is not their first language and uncertainty of their meaning of certain words may hinder their understanding. The pre-

service teachers told me that what they do is to use Malay on occasion when explaining verbally and furthermore they simplified their handouts and worksheets. It may well be that English and technical language of economics is indeed a barrier to learning economics. However, it is my argument that this is not necessarily the case. It may be that the teachers are not successfully transforming the content that can help their students' understanding of economics.

Eight of the pre-service teachers perceived economics as a subject that relates to real life. For example, Ahmad told me that learning economics was about decision making and how to organise life; Noraini argued that the person with economics knowledge will know about current issues such as the stock market, unemployment, and banks; Lisa, Mona, Munira, Salmah and Charles stated that economics is everywhere around us and economics is applicable in our daily lives; Lisa, Salmah, Mona, Munira and Sabrina argued that economics is relevant and helpful in understanding world current events. It is my argument that if pre-service teachers relate economics to their students' lives, maybe they will not find economics 'boring'. However, the way the pre-service teachers relate economics so that the students can understand also needs to be taken into account. Do the pre-service teachers tell the examples to the students or ask for their examples? I argue that the pre-service teachers still have to think of representing economics as a form of knowledge that the students can understand.

In conclusion, pre-service teachers in economics education need to have an understanding of the nature of economics in order for them to teach the content to their students. The

pre-service teachers need to understand broadly the structures of economics so that they can relate their understanding to what they are teaching in the classroom. Without an understanding of the nature of economics as their discipline, pre-service teachers might struggle to learn their content for teaching. In consequence, their ability to consider issues related to the nature of economics as their subject discipline is reduced. So there will be a tendency for them to revert to passive teaching strategies where they either consciously or subconsciously regurgitate old notes instead of forming new knowledge. The way pre-service teachers draw upon their knowledge of economics to teach economics and commerce is to be discussed in the next chapter.

4.3 Section Two: Pre-service teachers' conceptions of the way to teach

In this section, I examine the pre-service teachers' conceptions of the way they want to teach during their teaching practice. I have subdivided this section into three parts: 4.3.1 an account by pre-service teachers for their motivation to teach, 4.3.2 a description of pre-service teachers' previous teachers, and 4.3.3 a summary.

4.3.1 Pre-service teachers' motivation to teach

In this section, I probe the pre-service teachers for their motivations in wanting to teach economics. I now report their responses verbatim.

Salmah stated,

"It was my ambition to become a teacher. I took economics because A-level, I took business studies".

Ahmad expressed his view,

“Actually, I never planned to become a teacher. I just go with the flow. I never plan to do A- levels, and then I got it. And then I applied UBD¹⁰, and I got it. I chose economics since I was familiar with economics since secondary school. So that’s why I chose major economics and minor accounting” (sic).

Noraini stated,

“I didn’t decide to teach at first. I didn’t know that I was quite outspoken, that’s what people said. In my high school, I joined the debate team, and it goes on till form 6. And then I could speak, just speak anywhere, anytime. So teaching for me was no problem”.

Noraini stated,

“I did not decide of it. But I have to think of the future. A lot of people say that teaching is a guarantee job. So that made me decide, why not. I could speak also. And then, that was it. But once I stepped into teaching, earlier this year, the teaching practice, I enjoyed it. Because my satisfaction was there when my students get good grades, and they did their homework. So it was really satisfying”.

Nadia said,

“I don’t have any choices in becoming a teacher. But my parents motivate me to take teaching because of the future of getting a job. I became an economics teacher because my background in M.O.B.¹¹ so no choice”.

¹⁰ UBD: University Brunei Darussalam.

¹¹ M.O.B.: Management of Business

Mona stated,

“I join teaching because lots of people encourage me like my family, friends and relatives. Teachers are good, all benefits I can enjoy. And my friends join in. I choose economics because this is what UBD had offered and I think I can teach economics than other”.

Lisa said,

“I became a teacher because it gives a security for the future. I had no choice. I was familiar with economics”.

Charles stated,

“I became a teacher because of the security for the future. Actually, I took TESL¹² minor earlier, but I flunked in the exams. I had that for 2 semesters and so I said I'd better changed before it pulls down my average grade, So I changed my minor to economics. But when I took economics, it was easy to understand actually”.

Charles added,

“I don't really think about the future. I thought teaching was easy. But when I went to school, I have to do lesson plans, and that, and this. I always thought teachers' life is easy. Once I enter UBD, and enter SHBIE¹³ courses, and then go to school, I have to do so many things. And that kind of thinking has changed”.

¹² TESL: Teaching English as a Second Language

¹³ SHBIE: Sultan Hassanah Bolkihah Institute of Education, University Brunei Darussalam.

In this sub-section, I report on the pre-service teachers' responses for becoming teachers. There was only one teacher, Salmah whose ambition was to become a teacher. On the other hand, the rest of the pre-service teachers became teachers because teaching gives future security. An issue of reluctance in becoming teachers is noticed here.

4.3.2 Conceptions of the pre-service teachers' previous economics teachers' way of teaching

In this sub-section, I report the pre-service teachers' responses concerning the way they were taught economics and commerce by their previous teachers. All the pre-service teachers' responses are verbatim.

Ahmad stated,

"At UBD, the lecturer who taught macro economics, the way he taught was simple. He usually drew graphs, and explained. And then he asked us how to explain back, so when we do the exams, we just concentrate on the graph only and explain it by ourselves. My worst teacher was when I was studying in form 4¹⁴ and form 5¹⁵ because he doesn't ask how we think and how we feel. He only did 'chalk and talk', the same old thing. He just gave paper, and he only talked and we just sat" (sic).

Lisa said,

"My best was Dr T. He can explain well. Dr M, he is funny and he explains very clear.

¹⁴ Form 4: 15-16 years old

¹⁵ Form 5: 16-17 years old

'I don't like one lecturer, he taught ASEAN¹⁶ economics. I don't understand the way he taught. He has lots of notes but doesn't know how to explain. So I ended up memorising them. The course was not that interesting. I don't like statistic economics. She doesn't know what she was teaching. So she sometimes said that she was not sure. She talks and she doesn't know what she was talking about. She was the worst teacher''.

Lisa stated,

"Dr M, he is funny and he explains very clear. In secondary school, I don't like the economics teacher, form 4 and form 5. In class, she was strict. Nobody really likes her. Ok, she teaches. But she will get angry if we contribute ideas. It's more direct teaching''.

Noraini stated,

"Form 1¹⁷ and form 3¹⁸, I only got one commerce teacher. She was very strict. She made us know everything and anything in the textbook and whatever answers we give, it has to be perfectly the same in the textbook. So that was difficult and I hated her for that''.

Charles stated,

"The best one was he used concept maps, he taught macro. So easy to follow. I like his style. I don't like the one who taught intro to micro¹⁹. I don't like because she just put up graphs and explained, she didn't think that some of us are beginners and we were struggling with the concepts. She asked questions and only some answered her, so she

¹⁶ ASEAN: Association of South East Asian Nation

¹⁷ Form 1: 12-13 years old

¹⁸ Form 3: 14-15 years old

¹⁹ Micro-economics course at the University Brunei Darussalam.

took for granted that everyone understands the content. So that's why I had problems with micro".

Mona said,

"In form 4 and form 5, our teacher use spoon feeding. But when I went to UBD, most of the lecturers want us to think first before he explains. Sometimes these changes make us hard to adapt, initially we don't know, we are blurred in the first place and he ask us questions so it's very difficult to adjust. So far I don't have best and worst teachers. They have tried their best".

Nadia stated,

"During A-level M.O.B., the teacher gave good explanation and we could understand. She gave activities and I got the debate idea from her. We did a debate about money, whether we need money or we don't money. So I took some activities from her. She gave many examples and she really made us understand".

Salmah said,

"My favourite is the new tutor. She asked our opinions and so we are like friends. And maybe because she is young. Her way of teaching is applicable to us".

4.3.3 Summary

In this sub-section, I am reporting on the pre-service teachers' conceptions of their previous economics and commerce teachers' ways of teaching. I have identified four teaching approaches in the responses above. First, the pre-service teachers cited the teacher-centred approaches. The pre-service teachers did not like this approach to teaching. For example, Ahmad did not like his economics teacher during O-level because he only explained while the students sat passively in their seats; Lisa did not like her previous tutor who did not know how to explain the content; Noraini did not like her commerce teacher who only preferred her students' answers to be regurgitated verbatim from the textbook; and Charles did not like his teacher who took for granted that all students understood the explanation.

The second teaching approach that the pre-service teachers stated was good explanations by their previous teacher. Lisa liked a teacher who gave clear explanation. She did not like a teacher who gave lots of notes but didn't know how to explain. Charles liked his teacher who had used concept maps. He said that it was easy to understand the teacher's explanation. Nadia said that her teacher gave good explanation and examples. The activities that her teacher gave helped them understand the lesson.

The third teaching approach that one pre-service teacher liked was a teacher with humour. Lisa liked her teacher who was funny and gave clear explanation during teaching. The fourth teaching approach that two pre-service teachers liked was when

their previous teachers asked for students' opinions. Ahmad liked his lecturer who taught macro economics. He said that the lecturer usually drew graphs, explained and then asked students to explain back to him. Salmah stated that her favourite teacher was the one who asked for their opinions.

It is clear that the pre-service teachers had negative opinions of the teacher-centred approaches used by their previous teachers. The pre-service teachers prefer their previous teachers to use student-centred approaches where teachers ask students' opinions and give good explanations.

4.4 Discussion

In this section, I have textually analyzed (Strauss & Corbin, 1998) the findings of the pre-service teachers' conceptions for knowledge-for-practice. The themes and categories emerged from their conceptions are compared and refined to illuminate pre-service teachers' conceptions of subject knowledge and teaching:

Table 4.4: Knowledge-for-practice

Pre-service teachers' conceptions of subject knowledge	Pre-service teachers' conceptions of teaching
<p><i>Pre-service teachers' conceptions of economics at university</i></p> <p>a) economics at UBD were advanced for teaching, b) economics at UBD were useful for teaching, and c) economics at UBD were not relevant for teaching.</p> <p><i>Pre-service teachers' conceptions of school economics and commerce</i></p> <p>(a) school economics as 'low' level of economics knowledge, (b) school economics as difficult for their students, (c) school economics as boring for the students, (d) school economics as 'no fun' for the students, (e) economics theories have to be related with students' real lives, (f) commerce is about business, (g) commerce is common-sense, (h) commerce is easy to understand, and (i) commerce is a new subject for form one students.</p>	<p><i>Pre-service teachers' reasons for becoming a teacher:</i></p> <p>a) Ambition to be a teacher (only Salmah). b) The rest of the pre-service teachers had not planned to become teachers. They joined teaching because the profession gave them future securities.</p> <p><i>Pre-service teachers' conceptions of their previous economics and commerce teachers' ways of teaching.</i></p> <p>a) the pre-service teachers did not like the teacher-centred approach, b) the pre-service teachers liked good explanations by their previous teachers, c) the pre-service teachers preferred teachers with humour, d) They liked it when previous teachers asked for the students' opinions.</p>

- **University economics is ‘high’ knowledge and school economics and commerce are ‘low’ knowledge.**

The pre-service teachers viewed university economics as different from school economics. I discovered that the pre-service teachers viewed economics at the university as advanced and ‘high’ knowledge. I found that they had mixed conceptions on the applicability of university economics for teaching school economics: their conceptions were that university economics were both useful and not useful for teaching. However, their conceptions of university economics for teaching as not relevant for teaching school economics were high. The pre-service teachers’ conception was that they needed ‘low’ knowledge to teach school subjects.

The pre-service teachers perceived school subjects as ‘low’ knowledge. For example, the pre-service teachers’ conceptions of commerce were ‘easy’, ‘common-sense’ and ‘business-related’. Yet, I found that their conceptions of school economics were not that positive: school economics was ‘difficult’, ‘boring’ and ‘no fun’. To make it less difficult for their pupils, the pre-service teachers reported to me that they had to use ‘simple’ English and translated the words into Malay so that they could help their pupils to understand their learning. Even though the pre-service teachers believed that economics is a subject that relates to real lives, I discovered that their attention was focussed in translating ‘economics words’ rather than interpreting the theory with examples.

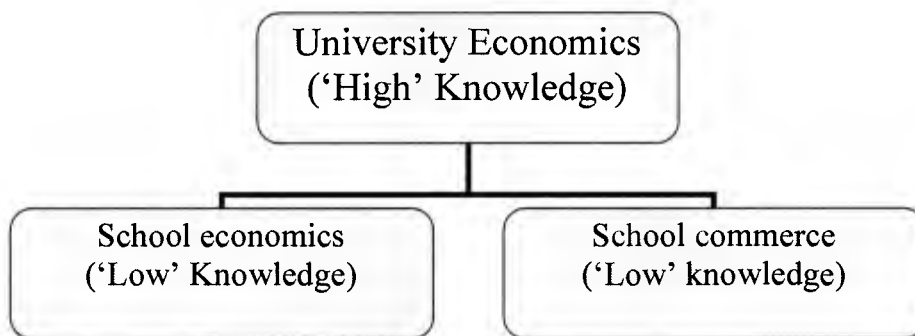


Figure 4.4: Pre-service teachers’ conceptions of university economics versus school economics and commerce.

- **Extrinsic rewards of becoming teachers**

“Why teach?” was the question that I asked the pre-service teachers. All of them except Salmah replied that teaching was a safe and secure occupation. Salmah was the only one who told me that it was her ambition to become a teacher. The other nine pre-service teachers stated that they joined teaching because they were attracted towards the extrinsic rewards of becoming teachers.

- **Pre-service teachers’ conceptions of teacher-centred approaches**

I discovered that although most of the pre-service teachers did not plan to teach, their belief was that teaching using a teacher-centred approach would not help pupils’ learning. I had asked the pre-service teachers to describe their experience of learning economics and commerce when they were students and I discovered that the pre-service teachers were unanimous in their views that they did not like their previous teachers (including tutors and lecturers at the university) who had used the teacher-centred approach. Instead, I found that the pre-service teachers preferred previous

teachers who asked pupils opinions, had a sense of humour, and gave clear explanation. Therefore, the pre-service teachers were aware that they needed to use a variety of teaching approaches which could help their pupils to understand their learning.

In conclusion, the findings in this study are particularly relevant to me as a teacher educator of economics education. The findings have shown that the nature of economics taught at the university needs to be considered as the pre-service teachers in this study are finding difficulties in linking their subject knowledge of economics with school subjects. From an economics educator point of view, the depth of high level economics at university is important for 'high level of knowledge' of economics teachers. These teachers with a high level of economics knowledge can create enthusiastic and creative lessons to motivate students to learn. The way pre-service teachers draw upon their knowledge of economics to teach economics and commerce is to be discussed in the next chapter.

Chapter 5

Knowledge in practice

5.1 Introduction

This chapter reports on the second stage of my primary research which is intended to answer my second subsidiary question: ‘How do pre-service teachers teach economics and commerce in practice?’ The focus of this stage of research is on pre-service teachers’ transformation of knowledge in practice where they are encouraged to articulate their way of representing the subject knowledge for their pupils’ understanding. As explained in the methodology chapter, I use semi-structured interviews and lesson observations as my research instruments for this phase of the research. Through the interviews and observations, I attempt to gain knowledge of the pre-service teachers’ beliefs about their ways of representing their subject knowledge to their pupils.

Specifically, my data collection for this stage consists of the following:

- Interviews with pre-service teachers before lessons
- Interviews with pre-service teachers after lessons
- Observation of pre-service teachers teaching in the classrooms
- Documentations of pre-service teachers’ lesson plans

The purpose of the interviews with the pre-service teachers before the lesson is to examine their conceptions of how they are going to teach the topic in the classroom. The lesson observation of pre-service teachers’ teaching is to examine their way of

representing the topic to their pupils in practice. After observing their lessons, the pre-service teachers are interviewed again and asked to reflect on the way they have taught the topic for their pupils' understanding. Their responses from the interviews are then correlated against the lesson observations and their planning documentation. This stage of research is exploratory in that the pre-service teacher is able to define what they believe is the nature of their relationship with their subject knowledge and how they teach. A result from this stage would be an account from pre-service teachers that they have a certain belief about how they choose to teach the subject knowledge when situated in their context. The data is textually analysed using the grounded theory (Glaser & Strauss, 1967).

In this chapter, I report the case studies of ten pre-service teachers' accounts of their experience in teaching a unit or topic in one lesson. The ten pre-service teachers are namely Salmah, Nadia, Noraini, Lisa, Ahmad, Zahrah, Charles, Munira, Mona and Sabrina.

5.2 Case 1: Salmah

5.2.1 Pre-lesson interview

The secondary school is located in the central town of Bandar Seri Begawan. It is a government co-educational school that offers form one to form five levels to the students. The range of students in the school is between twelve and seventeen years old. Salmah's classroom is located at the end of one of the school blocks. The weather is hot and sunny and the classroom is spacious with high windows. The fans inside the classroom are

working and the class is breezy. In the classroom, the students are seated in rows where the boys sit on one side and the girls on the other side. There are twelve students in the class and the students are in the age group of 15-16 year old. The class is Form 4 C and the subject is Economics.

Salmah is 24 years old and she is a pre-service teacher in economics. Salmah's lesson is for an hour: it starts at 9.30am and ends at 10.30 am. The theme of the lesson is 'economic systems' which she plans to cover in the hour-lesson. Salmah's objectives for the lesson are for the students to be able to explain the characteristics of market, planned and mixed economies; evaluate the advantages and disadvantages of the three economic systems; decide on the best economic system; and provide reasons for their preference. Salmah's lesson plan is attached in the appendix.

To achieve her lesson objectives, Salmah says that she will give a group activity to the students. The purpose of the group activity was for the students to discuss economic systems among themselves. Salmah states that she had used O-level textbooks for her teaching resources. However, she says that she has to simplify the textbooks for her students' handouts. Besides the textbooks, Salmah stated that she had used her friends' previous notes as her teaching resources. Her friends' notes were their old notes when they were secondary students. Salmah says that the reason that she borrowed from her friends was because she did not take any economics during her secondary school. Other teaching materials that Salmah had used were newspaper cuttings and case studies from the textbooks. Salmah also reports to me that she was the only pre-service teacher

teaching economics in the school, so she had to think of ideas for students' learning activities on her own. Salmah states that she does not discuss and share ideas with her colleagues from other schools.

5.2.2 Lesson Observation

Date: 24th February 2005

9.29 Salmah arrives. The students stand and greet Salmah, "*Assalamualaikum. Good Morning Teacher*". The students settle in their seats, Salmah takes the class register and prepares the class for the lesson in economic systems. Salmah looks at ease and confident in front of the class.

9.30 Salmah starts the lesson by instructing the students to divide themselves into three groups, group A, group B and group C. She calls out the names of the students and allocates them to their groups. The students follow her instructions. They move their chairs and tables so that they are sitting together as groups. This episode of the lesson was effective with Salmah giving clear instructions and the pupils following instructions and settling down quickly.

9.31 Salmah questions the students about the types of economic systems. Nearly all students reply to Salmah that there are three types. Salmah asks them to name them. The students name planned, market and mixed economies. Salmah praises them for their correct answer.

9.32 Salmah gives the instructions for the group activity.

Salmah: *What I would like to do is for each of you to defend or argue your own preference system, it's like you have to tell me the characteristics and tell me why you think it's the best. Understand? So what I would like you to do, I would like you to write one point here on the manila card. You just write the main points. And you have to defend why you think it is the best. Understand?*

The students stay quiet during Salmah's explanation.

9.33 Salmah ask the class to choose 'their' economic system. She names the different systems and the students from each group have to call out if they want that system. Salmah says in her well-projected voice, "*Planned economy?*". The students in Group A immediately raise their hands and say that they want it. Salmah then says, "*Mixed economy?*". Group C students raise their hands and call out immediately. Group B has no choice but to discuss the market economy. Salmah gives each group a big sheet of paper and two marker pens so that the students can write their answers.

As previously, her instructions are clear and her pupils are co-operative and respond well to her teaching.

9.34 The four students in each group discuss the answers with each other. Group A discusses the 'Planned economy', Group B discusses the 'Market economy' and Group C

discusses the 'Mixed economy'. Salmah checks with each group to make sure they know what to do. She reminds the students in each group that they need to discuss the characteristics, the advantages of their economic system and the reasons why their economic system is judged to be the best. Salmah reminds the students not to refer to the answers in their notebooks.

9.35 Salmah goes to the front of the class, gets the students' attention and says, "*You can also find the disadvantages of your other groups. Ok. If group C says market economy is the best then you try to find the disadvantages and try to argue with them*". The students continue discussing their answers.

9.37 Salmah checks that each group is on-task and offers help as required. She continues to monitor the work of the 3 groups over the next 4 minutes.

9.41 Salmah tells the students that they have another ten more minutes to discuss.

9.56 Salmah goes to the front of the class and asks the students to stop doing their work. She explains that each group needs to choose representatives to explain their answers to the rest of the class. Salmah calls out Group A first.

9.58: Two students from Group A stand and walk towards the front of the class. The two of them hold a big poster each in their hands. However, only one of them talks to the

class, the other student just holds the poster. The student reads their answers from the poster. He reads out the characteristics and the advantages of planned economies.

10.00: After the student has finished reading out their answers about the planned economy, Salmah asks the rest of the class for their opinions. One student from Group B argues that the disadvantage of a planned economy is that the economy is controlled by the government. The presenters look at Salmah.

10.03: Salmah asks the presenters from Group A whether they think that it is good that the planned economy is controlled by the government. The students reply, "Yes". Salmah then says to the whole class, "So students, they think that planned economy is the best since it is controlled by the government".

10.04: Salmah asks the second group, Group B to present their answers in the front of the class. Two students approach the board carrying their posters and each takes a turn reading the points. They read the characteristics and the advantages of the market economic system. After they finish reading them, Salmah then asks the student presenters, "*So why do you think it is the best?*". One of the students replies, "*there is no state interference so consumers are very powerful*".

10.06 Salmah asks the rest of class whether they want to argue with the presenters about market economy. Two students from group A and one student from group C state the disadvantages of market economic system.

10.09 After the three students give their comments, Salmah ask the presenters again whether they still think that market economy is the best system. The student presenters reply, “*Yes*”.

10.10 Salmah asks the last group, Group C to present their work to the class. Two student representatives from Group C read out the characteristics and advantages of mixed economy while holding the big poster.

10.11 After the presenters have finished reading their answers, Salmah asks the rest of the class if they want to comment on the presentation. Three students from the audience give the disadvantages of a market economy.

10.18 Salmah, standing in front of the class looks at the three groups and asks any groups if they want to change their types of economic system based on the presentation. One student from group A replies, “*Yes*”. Salmah asks which economy that the student prefers and he replies, “*Mixed economy*”.

10.20 Salmah recaps the characteristics and advantages of each economic system by questioning the whole class. The students reply to all Salmah’s questions.

10.29 The bell rings indicating the lesson has ended. Salmah praises the students for doing well in the lesson. The students stand up and in chorus say, "*Assalamualaikum. Thank you teacher*". Salmah leaves the class.

5.2.3 Post-lesson interview

My interview with Salmah had taken place after her lesson. We went to a quiet room so that Salmah could talk easily and comfortably. My interview with her had lasted for one hour.

Salmah reported to me that she felt happy with her lesson. She was pleased that her lesson worked out the way she had expected. It was the first time she did a group activity with the students and she was happy that the students were co-operative in the activity,

"I am quite happy with the lesson. It was a good lesson and the students were cooperative and did the activity. The most important thing was that they understood the previous lesson and they showed their understanding in their presentation. Yes, I am very pleased with the lesson. And it did work out. It was the first time I did a group activity and it was my own idea for the activity".

Salmah stated that the lesson was the best she had taught so far,

"...so far I think this lesson was the best. I am quite happy with the lesson today. It was really working, I think and the students were quite cooperative and also it showed that they actually understood the previous lesson. For example, the students showed the planned economy by presenting it in front of me and they

were able to defend their own economic system meaning that they truly understand what the topic was all about”.

Salmah stated that she thought it was a good idea to give the group activity to the students. She said that the activity stimulated the students’ thinking and they had given their ideas and opinions, *“I think it is really good to have good teamwork and also it is good to stimulate their thinking. When we stimulate their thinking, they tend to think, they tend to challenge me and they give their own ideas and opinions”.*

Their discussion showed that they had understood the lesson,

“I think yes, they have understood. Because they present it in front of me so I know that that they have understood. I also went round the class and watched how they worked. And I saw that they were interacting with their friends discussing and arguing, which was good”.

In response to my question about students’ enjoyment, Salmah replied, *“Most of them yes. Because I could see from their faces. They were really eager to say something. A few of them, I don’t know. Because few of them were silent. That is the problem with the students. They are shy”.*

Salmah reported to me that she usually introduced a new topic with a case study,

“Usually what I do is I start with a case study. Sometimes I do start with story telling. For Form two²⁰ commerce, storytelling, but if it is not applicable because sometimes they are slow or active. So I just do it directly like ‘ok, so our topic for today is banking’. So I tell them what banking is. For economics, what I usually do is stimulate their thinking. For example, about the market system, so I just ask do you have any other economy in general? So they will start to say something. When I mentioned case study just now, it is more like storytelling. I haven’t started with form four²¹ yet but I had started with form two already. For form four, I give the chance to give examples and explanation but before their answers was not so good. So I tend to give them notes for examples and explanation. Some of the students are just not confident in giving their own answers”.

In response to my question about her teaching materials, Salmah said,

“Yes, from the textbook, from the internet, from the previous teacher, from previous notes. The internet, the website I use is biz-ed, or I will just browse under yahoo. The biz-ed is helpful for form four. I use the multiple choice questions, but the notes are not that helpful. So I just use biz-ed for assessment task, where I just click on the learning materials. I also extract questions from the past exam papers, where I will re-type the questions again. So for resources, I am using 3 textbooks, also from my cooperating teacher and from previous notes from my friends”.

²⁰ Form two: 13-14 years old

²¹ Form four: 15-16 years old

Salmah argued that only some of the knowledge from the university was applicable in her teaching, *“The low level economics is the one that is applicable in this school. In MOT²², it is more into how to learn not into content. But we are only given economics syllabus here in this school, not in MOT. MOT in a good way is that the lecturer tells us how to teach this, how to teach that. If you are thinking why I am not suitable to teach, I think I should blame the university. The university is tough. Meaning that they don’t have one specific course if you want to be a teacher like study about demand and supply, things that we are going to teach the secondary students, things that we are going to teach”*.

Salmah did not think that she had any problems with teaching with the exception that the students were sometimes noisy. Salmah did not encourage the students to speak Malay but she argued that she had to use some Malay words during explanation to make the students understand,

“For economics, my problem is that students are not scared of me. They see me as a friend. In form four, I don’t really have a problem because they treat me as a friend. It’s ok. For form 2, the problem is that they are too noisy because they are still children. They don’t really listen to my explanation. Form 4, I have no problem in language but off- course sometimes the students speak Malay to me. But I don’t really encourage them to speak Malay. So they have to speak English. Except for some terms, I use Malay language. Form 2 commerce, I use both. The students usually speak Malay. If I talk in English, they don’t listen. But if I talk Malay, then they tend to listen”.

²² MOT: Methods of Teaching

5.2.4 Discussion of Salmah's representation of 'economic system'

Salmah reported to me that she had planned her lesson well and her objectives for the lesson were achieved. She told me that the students were able to discuss the advantages and disadvantages of the economic system and presented their ideas to the class. The students in each group learned through their discussions among themselves about the advantages and disadvantages of their preferred economics system and later the whole class learned about other economic system through the group's presentation. Salmah was happy with their effort.

Salmah has a good rapport with the students and she interacted with the students easily. The students were not afraid to tell Salmah that they did not understand the instructions. Salmah was helpful in guiding the students to do their activity.

Salmah might have the understanding of the economic systems but she did not mention any examples that can relate her students' understanding to real life events in the class discussion nor in my interviews with her. The students' understanding of the advantages and disadvantages of each economic system within the real world was absent from the activity. The students were not given any examples of the countries that practice any of the economic systems. The students were not even asked of their opinions whether they know the countries that might be practicing any of the systems. Salmah did not relate to Brunei economy and did not ask the students to contemplate whether Brunei has a market, mixed or planned economics system. The lesson seemed to be more focused on

the students regurgitating the advantages and disadvantages of each economic system rather than representing the economic systems through the development of the students' understanding and thinking on the applicability of the economic systems in the real world.

5.3 Case 2: Nadia

5.3.1 Pre-lesson interview

Nadia is 24 years old. She is a pre-service teacher in economics education. The secondary school that she is assigned to is located in a rural area. The school is situated in Tutong district²³ and is far away from the central town of Bandar Seri Begawan²⁴. It is a co-educational government secondary school and Nadia is given the subject economics to teach form four students in this school.

In Nadia's class, there are 19 students, a mixture of boys and girls in the age group of 15-16 year olds. The duration of the lesson is 70 minutes; it starts at 7.30am and ends at 8.40am. Nadia is teaching the 'factors of production' for today's lesson. As listed in her lesson plan, Nadia's lesson objectives are for the students to a) identify production as economic activities that satisfy consumer wants, b) classify and describe the four factors of production, c) explain more details of each of the factors of production, d) explain correctly the supply and efficiency of labour, e) recognize the two types of capital and its importance, and f) define capital-intensive and labour-intensive in combining the factors of production.

²³ Tutong – One of the four districts in Brunei. The other three are Brunei-Muara, Belait and Temburong.

²⁴ Bandar Seri Begawan – The capital of Brunei and is located in Brunei-Muara district.

Nadia states that before she prepares the lesson contents and handouts for the students, she refers to the scheme of work for economics O-level to verify the teaching content. Nadia says that her handouts are from the textbooks that she owns and that have been loaned by her cooperating teacher. However, Nadia reports to me that she finds the textbooks to be complicated for the students and she has to simplify the content for the students. So Nadia says that she prefers referring to her sister's previous O-level notes when she is making her students' handouts.

In her lesson induction, Nadia plans to recall the previous lesson, 'the types of production' by asking the students questions. She will ask the students individually by calling their names. After five minutes of questioning the students, Nadia plans to introduce the lesson by giving them a pair activity. In the activity, the students have to work in pairs to match the pictures with sentences that best suited the pictures' descriptions of a record production company called 'High Power Records Production'. This activity will last 20 minutes.

After the activity, Nadia will explain the meaning of production. Then, Nadia will select different students to define and explain the factors of production, that is, land, labour, capital and entrepreneur to the rest of the class. This question and answer session will last for 20 minutes. After this, Nadia will move on to explain how the factors of production are combined, that is, through capital-intensive and labour-intensive. For

closure, Nadia will ask the students to do a ‘classifying term activity’ to make sure that the students understand the lesson. This classifying term activity refers to the written work by students where they have to match the words with the correct terminology such as the word ‘teacher’ with the term ‘labour’. Nadia has 70 minutes to complete her objectives listed above for the lesson.

5.3.2 Lesson Observation

Date: 21st February 2005

7.38 Nadia asks all the students to stand. She informs them that she wants to evaluate their understanding of the previous lesson which was production. She then asks the questions and when the students know the answers, they raise their hands. Nadia asks students to answer questions such as questions that ask for the definition of production, the three types of production, the meaning of primary production. All the nineteen students in Nadia’s class have to answer her questions. If they can’t answer her questions, they cannot sit down.

7.50 After all the nineteen students have answered her questions, Nadia starts to give tasks to the students. She tells the students that they are going to do a pair work activity. The students have to find their own partner. The boys only choose the boys and the girls only prefer to sit with the girls. Overall there are nine groups of students. For each student, the teacher gives an activity sheet. The content is about the production of CDs. The activity, that is, a ‘matching’ activity requires

the groups to match the pictures of different types of production with sentences that describe them. The different types of production are primary, secondary and tertiary productions.

7.55 Nadia informs the whole class that the students have ten minutes to do the activity. The class buzzes as students discuss and try to match the pictures. During the activity, Nadia approaches each group of students and guides them in the activity.

8.10 Nadia asks the students to stop writing. She poses the questions to the whole class and the students reply to Nadia's questions with the answers.

8.12 Nadia finishes questioning the students and she asks the class whether they have answered correctly. The class replies, "Yes". Nadia then writes the answers on the board and explains again the answers to the students.

8.16 After she finishes explaining the answers for the second time, Nadia asks the students whether they find difficulties in doing the activity. The class answers, "No". Nadia praises the students, "Good".

8.17 Nadia then distributes handouts to the students. The handouts are about 'Production'. When all students have received their handouts, Nadia explains the content to the students. In the first paragraph of the handout, Nadia asks the students to find

some missing words and she guides them towards the correct answers. The sentence is the definition of production and the underlined words below are the missing words:

'Production refers to the making of goods and the production of services in order to satisfy people's wants.'

Nadia explains the rest of the handouts but she also asks questions of the students such as below:

8.20 Nadia: *how many factors of production?*

Class: *four*

Nadia: *What are they?*

Class: *land, labour, capital and entrepreneur*

8.22 Nadia: *Can you give me example of producing tyre?*

Adam: *Rubber*

Nadia uses Malay words (in italics) to explain the words that students do not understand.

8.24 Nadia: *Do you know what it means by efficiency?*

Class: *No*

Nadia: *'Kecekapan'*

Nadia: *Utilisation means 'penggunaan'.*

8.28 Nadia: *Working conditions. You know what it is?*

Class: *No*

Nadia: *'Contoh keselasaan bekerja, mana kamu mau, bekerja di dalam bilik aircon atau di luar?'* (Where do you want to work? Do you want to work inside an air-conditioned room or outside?)

Class: *'Di bilik'* (Inside the room)

Nadia: *That is working conditions.*

8.42 Nadia's lesson ends abruptly due to the bell. She is not able to finish explaining the notes about 'Capital' and 'Entrepreneur'. She supposedly gives another activity to the students but does not have the time to act upon it.

6.2.3 Post-lesson Interview

Nadia was disappointed that she did not have time to finish explaining the factors of production. She said that the discussion for the activity was longer than she expected.

Nadia: *I am disappointed that I cannot cover the whole content. Because most of the time, I spent in the discussion for the activity. It was a long discussion.*

However, she said that her lesson was ok. She didn't expect the students to do well in the activity, the production of CDs. In the activity, the students had to match the pictures with the description. Nadia commented that if she was given the chance to do the lesson again, she might have asked the students to think and discover by themselves how to produce the CDs instead of only matching pictures. It was the first time that Nadia had asked students to do the activity in pairs. However, she preferred that in the future the

students should work in groups when doing activities as she had found that there were more discussions when students were in groups.

Nadia: *Well, it was ok. For the activity, I didn't expect them to do well because sometimes in some activities, they usually take a long time to think. But for this activity, they easily understand the content. Maybe I will add more of factors of production. I think its better to let them think more. So for example, I let them just discover themselves how to produce a product using the factors of production. But just now, I just ask them to match pictures for the production of CDs. Maybe I should have let them discover by themselves how to produce the CDs.*

Nadia: *It was new for me to do the pair activity. Before this, I did discussion but always like four to five people in a group and I found that it is better for me to do more people in a group. It takes time when only two people. When they are in groups, I found them to be discussing and brainstorming. So next time, I prefer them doing in groups.*

Nadia did not have time to ask the students questions at the end of the lesson so she did not know whether the students had understood the content.

Nadia: *My aim was for the students to develop an understanding of the topic. From what I saw, their understanding is not that deep but at least they get the idea like the situation of the factors of production. They were ok when I ask them. Just now I asked two students and they were able to give me explanation. It's just*

that I don't have time to ask them all. To explain, what I mean is that I want them to recall. I always recall back when I finish the topic. Recall back what they have learnt but just now, I didn't have the time. So it is difficult for me to say whether they have understood or not. Usually, I always asked them questions to recall back without them referring to the book or handout, to know whether they understand or not. This is the first time, I haven't got the chance. Maybe because the content is more today since I have to cover Wednesday's lesson. Wednesday is going to be a holiday. And then they are starting their monthly test this first march. So yeah, that's why I had to squeeze many in one lesson. I only have two lessons in a week. And Wednesday, the holiday, is a double period.

However, Nadia stated that she thought that the students had enjoyed the lesson because they were responsive throughout the activity and they were able to match the pictures with their descriptions. Nadia informed me that the students found the discussion activity in the previous lesson to be difficult because they had to discover the advantages and disadvantages themselves. Therefore, Nadia said that they were not enjoying themselves,

Nadia: *The students responded to my activity just now. In the previous lesson, they found the activity difficult. It was a discovery activity where the students have to discover the advantages and disadvantages of a certain concept. They found it difficult and so they were not enjoying themselves. Unlike today, when I just gave description and matching pictures, they gave good responses. So maybe I think it is too complicated for them to do discovery activity.*

Nadia would usually ask students to give their own examples, for example Nadia reported to me that she had asked the students to explain and give examples for one of the advantages of market economy,

***Nadia:** I will explain the point, like the advantages of market economy for example the responsibility the consumer want. And then I ask some students what they understand by the responsibility that the consumers' wants. Can you explain to me? Can you give me examples? They gave their answers but they will use Malay. I don't mind them using Malay as long as they understand the content. I found that they students don't know how to explain but they really understand.*

Nadia had used the Internet such as 'Google' and economics textbooks for her teaching references. She found that the knowledge that she learned from the university was very useful. Nadia only became familiar with economics as a subject when she entered the university. She said that she did not take O-level and A-level economics. Nadia informed me that at the university, the economics programme covered all economics topics. She found the method courses interesting and helpful but rather difficult to implement in class, "*Very useful because I only took M.O.B.²⁵ during A-levels. So it was not enough for me to get the idea of economics. At UBD²⁶, the course covers all*

²⁵ MOB – Management of Business

²⁶ UBD – University of Brunei Darussalam

economics topic. So I think it is useful. For MOT²⁷ economics, it is really useful, because it helps us to get ideas how to teach. For MOT-1²⁸, we did a peer teaching in a group. For MOT-2²⁹, we did variation theory. But I found here like when I try using the variation theory, it is difficult. I cannot use the variation theory”.

Nadia reported to me that her problems in teaching economics were that she needed to use Malay in order for her students to understand and that the students lacked motivation in the subject.

Nadia: I have to use bilingual. My first teaching here, I actually speak all English. I didn't use bilingual but the students were quiet. They didn't ask questions. So when I asked them why, they told me that they prefer me to speak in Malay so that they can understand. So that is why first, I give them example, I explain them in English then I have to explain them in Malay. So I have to translate English to Malay. It is like they find difficulty to understand if I only use English. So language is the main problem. So far, resources are ok. I can get from the internet or textbook. Its just that the students are sometimes difficult to motivate. I can't get their interest in economics. They perceive economics as difficult since they were taught by the previous subject teacher. And they lost their interest. That is why, it is difficult to get their interest back. The subject teacher before me was teaching them for two weeks before giving this class to me. The

²⁷ MOT: Methods of Teaching

²⁸ MOT-1: Methods of Teaching Part One

²⁹ MOT-2: Methods of Teaching Part Two

subject teacher did the introduction to economics. Since then, the students think economics is difficult..

5.3.4 Discussion of Nadia's representation of 'factors of production'

In her lesson induction, Nadia has adopted a teacher-centred approach. Her lesson induction took longer than expected. She insisted that all the students must answer her questions before they could sit down. She asked questions that required the students to regurgitate from the textbooks or previous handouts. She did not ask them to explain or describe their answers. Nadia was authoritative as students must answer her questions. Nadia looked confident in her knowledge as she questioned the students. However, Nadia asked questions that did not examine her students' understanding.

The second part of her lesson was the matching pictures activity where the students had to do the work in pairs. There were nine groups to handle and Nadia had her hands full. She was seen moving from one group to another as each group asked her questions where most of the time, each of the group asked her to repeat the instructions for the activity. Nadia patiently helped and guided the students with their work. When they finished, Nadia discussed the answers with the whole class and wrote the answers on the board for the students to check. The students seemed to have enjoyed doing the activity. However, the activity did not require the students to develop their own ideas and thinking as the answers were already provided: the students only needed to match pictures and words. It would have been better if Nadia had asked the students to explain the pictures in their own words. Nadia did realise in her post-interview that she should have let the students

discover for themselves how to produce the CDs but she later added that in her previous lesson, students found discovery activity to be difficult and they did not enjoy themselves. She also realized that she preferred students to group themselves rather than them being in pairs as more students would be able to discuss their ideas. However, the matching activity did not require much brainstorming from the students as the answers are already provided in the worksheet.

Nadia then moved to her third part of the lesson where she spent the rest of the twenty minutes explaining the notes about production. She did not mention or relate the matching activity of CDs production that the students did with the content of the notes. Therefore, the lesson objective of CDs production was not really clear as the students were not probed for their thinking and their understanding of factors of production.

Nadia was not able to achieve all her lesson objectives. In her post-lesson interview, she was disappointed that she did not manage to finish explaining about factors of production. As Nadia mentioned before, her lesson objectives were to; a) identify production as economic activities that satisfy consumer wants, b) classify and describe the four factors of production, c) explain more details of each of the factors of production, d) explain correctly the supply and efficiency of labour, e) recognize the two types of capital and its importance, and f) define the capital-intensive and labour-intensive in combining the factors of production. However, her lesson objectives did not seem to correlate with her real lesson. There were no follow-up questions to investigate

students' understanding after the activity. Nadia was focussed on delivering the content through a teacher-centred approach.

5.4 Case 3: Noraini

5.4.1 Pre-lesson interview

Noraini is 24 years old and she is a pre-service teacher in economics education. She has been assigned to teach at a secondary school located in a community outside the central town of Bandar Seri Begawan. The secondary school is a government school that offers co-education to the community. Noraini is allocated to teach the subject commerce to form one students (12-13 year olds) during her teaching practice.

Noraini will teach 'barter trade' for her lesson. Her lesson is for 100 minutes: it starts from 1.30 pm and ends at 3.10 pm. Noraini has listed three main objectives that she wants to achieve at the end of her lesson: she wants the students to define barter trade, identify key terms when a definition is given and identify the disadvantages of barter trade. Noraini says that the topic barter trade might be difficult for the students to understand as the content is new to them. So she believes that the practical activity that she is going to give the students in the lesson will facilitate their understanding of barter trade. She states that students will not have understood the concept of barter trade if she uses a teacher centred approach. Noraini says that she does not want to talk for the whole lesson while the students remain passive. Therefore, in her lesson, Noraini plans to introduce 'barter trade' by first giving the definition to the students and then the students

will do an activity where the students discuss among themselves. Through this activity, Noraini says that she allows the students to experience barter trade in the classroom.

Noraini explains that she has prepared her own teaching notes with references to the textbooks where she has to simplify the textbooks for her students' handouts. In other words, she says that she has to make the words simple so that her form one students, whose age range is approximately 12 to 13 years old, can understand. Noraini says that she also refers to her friends to discuss her ideas for her lessons as she wants to make her lessons simple for her students to understand.

5.4.2 Lesson Observation

Date: 19th February 2005

2.10 Noraini enters the class and the students greet her immediately. Noraini lets the students settle down before she starts the lesson.

2.15 Noraini writes on the board, '*Barter Trade an exchange of goods with your goods is known as barter trade*'. She then explains the sentence to the class.

2.18 Noraini tells the students to allocate themselves in pairs. The students immediately follow her instructions. There are six pairs in total. She gives each individual student in each group an activity worksheet. Before she lets the students read the worksheet, she instructs them to take out their pencil case or any of their personal belongings such as pens, rulers and erasers.

2.20 After the students have chosen their items, Noraini explains that they have to try and trade. She says, *“For example, these two pens are different. And you have to exchange with something that you want from your friend. I want you to exchange the things”*. Noraini wants the students to exchange their items with their partners. If the students agree to exchange the items, they then have to write ‘Yes’ on the activity sheet. If they do not agree, then they have to write ‘No’ on the activity sheet.

The activity sheet is a small strip of paper. Each student needs to write his or her items, for example, Ahmad writes ‘pencil case’. Ahmad then asks his partner, Ali whether Ali wants the pencil case. If Ali wants the pencil case then Ahmad has to write down on his activity sheet, ‘Yes’ and vice versa.

2.26 Noraini guides the students in each group so that they know what to do in the activity. The students discuss in pairs and write their answers in the activity sheet to indicate that they have agreed to exchange their items with their partners.

2.29 While the students are discussing their work, Noraini divides the whiteboard into three columns and writes the headings in each column,

What are you selling? What do you want in return? What did your partner want?

2.38 The other pairs have finished by this time. However there is one left where the students could not seem to agree on the exchange of goods. So Noraini has to wait for

them to negotiate with each other. Noraini tells the last pair that they need to make a decision. They need to write 'Yes' or 'No' on the activity sheet.

2.40 Noraini tells the students to stop writing and asks each pair to give their answers.

Noraini writes the students' answers in the three columns on the board:

<i>What are you selling?</i>	<i>What do you want in return?</i>	<i>What did your partner want?</i>
<i>pencil case</i>	<i>black pen</i>	<i>rubber</i>
<i>pencil case</i>	<i>watch</i>	<i>bag</i>
<i>rubber</i>	<i>pencil case</i>	<i>glue</i>
<i>pen</i>	<i>highlighter</i>	<i>calendar</i>
<i>watch</i>	<i>table cloth</i>	<i>watch</i>
<i>pencil</i>	<i>bag</i>	<i>pencil</i>

2.46 Noraini asks the students, "Why do you say 'Yes'? Why 'No'?". The students went quiet. Noraini explains to the students that the reason is that people encounter problems with barter trade. She then writes the problems on the board:

- 1) Find a double coincidence of wants. To find two people willing to trade.*
- 2) To agree on the exchange value*
- 3) To honour barter trade agreement*

Noraini explains the problems by giving examples that relate to the students' experience in the activity.

2.53 Noraini uses a story to explain the third problem of barter trade, *“Now for example, who goes fishing here? Ok, listen. To honour an agreement, two people, a farmer and a fisherman. This fisherman, says to Mr A, farmer, tomorrow can I have two chickens, five goats and three cows. And then the farmer says, ok. Now the farmer will say to the fisherman, 1000 kg of fish and this is for tomorrow. Then at night, it rains and then in the morning, it rains again, the farmer goes to the Fisherman, “Where’s my fish?”. The Fisherman says no fish because it was raining. So do you think the fisherman will still get all these goods?”.*

The class replies, *“Noo...”*

Noraini: *So no fish, no cow, chickens and goats. Do you think there will be an exchange?*

The class: *No*

Noraini: *So to honour an agreement is a promise. Ok?*

2.57 Noraini asks the class whether they can resolve the problems of barter trade. The students reply, *“No”*. She then explains that the problems can be resolved with the introduction of money. Noraini explains that they can buy goods if they have money. She says that she will teach them about money in the next lesson.

2.58 Noraini recaps the lesson with the students by discussing the definition and the problems of barter trade.

Noraini: *So today we have learnt about?*

The class: *Barter trade*

Noraini repeats the definition of barter trade, "*So barter trade is an exchange of goods and whatever you have done in your activity is an exchange of goods. Now barter trade has problems. What are they?*"

The class goes quiet.

Noraini writes the first problem, '*1) to find a double coincidence of wants*' on the board and asks the students to explain. There was no reply from the class. Noraini explains the meaning, "*... to find two people to agree*".

Noraini then writes and asks the second problem, '*2) to honour a barter agreement*'.

There was no reply from the students. Noraini explains again:

Noraini: *So what about the promise? The fisherman and the farmer? What does the fisherman want?*

Sukri: *two goats, chickens, five goats.*

Noraini: *So what does the farmer want?*

Fadli: *fish*

Noraini: *So what happen? The fisherman couldn't get any fish because of the rain. So the farmer didn't get any fish. So no trade, ok? Understand?*

Noraini asks the students the third problem. There was no reply from the students. Noraini writes, '*3) to agree on the exchange value*'. She gives an example of a book and a pen:

Noraini: *Now, Who wants this book?*

Omar raises his hand.

Noraini: *Who wants this pen?*

Ahmad, Mina and Fauzi raise their hands.

Noraini: *If I say, this book is made of gold?*

All the students raise their hands.

Noraini: *Now if I just put this book here, do you still want it?*

The class: *Yes*

Noraini: *Ok, how much do you think the pen is?*

Fatimah: *1.80*

Omar: *1.50*

Noraini: *So this means that it is difficult to agree on the exchange value, is that clear?*

The class: *Yes*

3.10 The bell rings to indicate that the lesson has ended. The students stand to say their thanks to Noraini. Noraini packs her things and exits the classroom.

5.4.3 Post-interview lesson

Noraini was pleased with her lesson. The lesson went well. She said that the activity was on time and all the students participated in the activity. Noraini was also pleased that the students responded to her questions. She didn't think that she would change the lesson as her lesson plan was appropriate for the topic,

Noraini: The lesson went well. It went ok. As I predicted, the trading, the activity which I gave was on time. The timing was ok, and the students do respond to some of my questions. I was pleased with the lesson. Everybody participated although there were a few arguments here and there but you know how kids are. So it was alright. So it worked out the way I had expected.

Noraini: To change? To change, not really, whatever I gave them on that day it was appropriate for the topic.

Noraini found difficulty in explaining the concept of barter trade since it was not applicable in the students' life,

Noraini: It was hard actually for me to explain barter trade. Because they don't apply barter trade here. So the concept was hard, so I had to explain it, I think five times. What is barter trade? The exchange of things. I think they will lose the information. When I said that you can change this can change this and then for the third explanation, I don't think they had paid any attention. But when I said, ok you are going to sit down and do the activity, then they started to say

'oohh..what was it?' Then they started to ask. So I have to emphasize it again and again.

Noraini described that she learned her individual students were different from each other. She realized their individual differences when they did the activities where they had different values from the others,

Noraini: *Yeah I did because the lesson was more about activity. So I learnt that different students have different values. They are different from each other. So I will use that as part of my teaching, you know, give a definition, one group has a totally different argument with another.*

Noraini thought the students had understood her lesson as they answered her question.

Noraini noticed that some of the students had enjoyed the lesson,

Noraini: *Yeah, I think they did understand. Because I asked them during the recap session. On barter trade, and then they say yes, the exchange of goods, and I said alright, and they I asked do they agree on this. Some said yes, some said no and then I asked them why and they said different value teacher. Or this is more expensive than this. So they actually got it!*

Noraini: *Some of them enjoyed, some of them might not. Some of them, maybe it is a new thing to exchange our own things. They now realize that their things are more valuable than others.*

Usually, in her lessons, Noraini would introduce a new topic by making sure the students understand the meaning of the commerce terms such as barter trade. She would ask the students to give their own examples so that they would understand the terms,

Noraini: *Ok first depending on the words. For example, the barter trade. For sure they do not know what barter trade is because it is new but trade they know. They say it's a business or like that. Right, that's good. Good try. Then I explain to them, barter is 'exchange'. The word will be familiar to them and they will understand.*

Noraini: *For example, there's one topic under needs and wants. So I usually ask, 'ok, what do you need?' and then I jot it down because if I were to use my own needs and want, it may not be what they want. So I asked examples from them. I also asked them for meanings and then when they give their own meaning using their own words. I use their words. It's for them to understand, for example one student said this word and another student said another word, I try to link the two words together, that's how I do it.*

Noraini would get ideas from the Internet and the textbooks for teaching strategies.

Noraini: *Yes, the internet. For teaching materials, sometimes I made my own. I buy books. There are strategies from books that we get from the library. Sometimes they have good games which you can use.*

She also had implemented some of the ideas from her methods of teaching course for her teaching activities. For example, she had got the ideas of the barter trade activity from her peers when they did peer teaching at the university.

Noraini: For MOT³⁰, the teaching style varies. At the university, it is quite different, for peer teaching, our colleagues are more willing and cooperate with you. Here, in real classroom, you will have a rough time handling the activity. Today's activity, I got it from my colleagues at the university. I think a lot of activities I used I take from university and I adjust for my students.

Noraini found that the students talked a lot in the class which posed a problem in her teaching. She did not like her students speaking Malay and she would make sure that the students communicated with her in English. This was because English was the base for the language of commerce,

Noraini: My problem is that I found the students talk a lot. But I will make sure that their talks are constructive but since it is a small class, so I can handle it. I will not ask them to communicate with me in Malay. I will make them communicate in English because it's the base language of commerce. I don't have problems with the students since I was given a good class. For slow learners, I usually give extra classes before school starts at 12 in the afternoon. I need them to really understand. If you give the students the textbook and ask them to read, they will not understand. So it is up to us like use our imagination and use the students as well so that both can combine to understand commerce.

³⁰ MOT – Methods of Teaching

5.4.4 Discussion on Noraini's representation of 'barter trade'

Noraini was pleased with her lesson as the students were able to do the activity. She was satisfied that her lesson went accordingly to plan. Noraini represented her knowledge of barter trade to the students by letting them experience the barter trade activity themselves. In the activity, the students either agree or disagree to exchanging goods.

At first, Noraini's instruction for the activity was not that clear but she was able to guide the students by approaching each pair of students. The pairs of students were agreeing and disagreeing with each other and they had to come up with an agreement to exchange their goods, that is, they were tacitly learning the barter trade system.

Noraini said in the post-interview that she found barter trade to be a difficult topic because it was not applicable to real life. She was struggling to find ways to represent the content to the students. However, in the lesson, she had successfully represented the concept of barter trade in the students' activity. Noraini had linked the students' experience of exchanging goods with the disadvantages of barter trade. Noraini had used examples of fisherman and farmers to explain about barter trade. Noraini pointed out later to her students that the solution for barter trade was the introduction of money. However, there was no discussion between Noraini and her students that people in the old times used barter trade as their way of trading goods and services. Noraini did not probe students' understanding regarding the reason for barter trade and the reason that barter trade is not applicable in today's world. In the lesson, students were not able to comprehend that the solution for the problems of barter trade is money.

5.5 Case 4: Lisa

5.5.1 Pre-lesson interview

The secondary school is a government school that offers co-education to the community. The school offers form one to form five classes to the students. Lisa's class is form four and the classroom is located at the end of one school block. The room is very warm since the fans are not working. Inside the room, there is one student, a 15 year old boy, seated in front of the class.

Lisa is a pre-service teacher in economics. She teaches economics to form four students (15-16 year old). Lisa's lesson is for forty-five minutes; it starts at 10.15 am and ends at 11.00 am. The theme of the lesson is cost of production and the lesson is about the learning of mathematics formulas for the cost of production. Lisa's objective for the lesson is for students to remember the formulas for the cost of production. Lisa admits that her mathematics knowledge is not that good and for this lesson, she has to be sure of the content so that she knows how to teach them to her students. She says that she plans to use a teacher-centred approach in this lesson.

Lisa relies on her brother's notes as references for her teaching. Lisa's younger brother had taken economics O-levels and Lisa says that her brother's notes are better than her previous O-level economics notes. Although Lisa's co-operating teacher has provided her with past year papers and some textbooks to use for teaching references, Lisa still prefers to use her brother's notes. Lisa says that her brother's notes are simple and the sentences inside the notes are easier to understand than the textbooks.

Lisa has only two students in her economics class. She states that she finds teaching two students to be difficult as the students are very quiet. Lisa states that she usually recaps her lessons by questioning the students but they are usually not responsive to her questions. Lisa is sharing her class with another colleague. She finds that sharing her class is sometimes a problem because she finds it difficult to recap the previous lesson with the students. She has experienced that the other teacher has missed out many weeks of teaching because the other teacher and her students attended the practices for the National Day celebrations.

5.5.2 Lesson Observation

Date: 26th February 2005.

10.15 Lisa enters the room to find only one student, a boy named Zaki. There is supposed to be another student, Nora. Since Nora is not present, Lisa is left with only one student for the lesson.

10.17 Lisa informs Zaki that the lesson is about cost of production. Lisa then writes the definition on the whiteboard:

Definition

Cost to anyone or firms directly involved in producing decisions

10.18 Lisa explains the economics concept, that is, 'fixed cost' to Zaki.

Lisa: *Let's say when a firm decides to produce goods, do you think that firm spend money, what do the firm have to pay? Ok raw materials, labour, we also need machinery meaning all of these are the cost of production, right. So there are actually different types of cost.*

Lisa: *Can you tell me what it means by fixed cost?*

The student reads the definition from the handouts.

Lisa: *Can you understand that?*

Lisa: *Ok let's say, I give you one example, this is a car factory, produce 1000 Toyotas. Ok now Toyota has become so popular, so let's say, more people are buying Toyotas. So as a car factory, do you think you want to produce more?*

Zaki: *Yes*

Lisa: *why?*

Zaki: *profitable*

Lisa: *yes profitable meaning that more people will want to buy your goods*

Lisa: *so now you produce 2000 Toyotas. So the car factory, you have to pay salary, right? So this salary, lets say, you are the worker there, so every month, you earn 1000 dollars there, so now that the car factory is producing more cars, do you think that the car factory will increase your salary?*

Zaki: *increase*

Lisa: *Increase? Let's say you are a new worker and your basic salary is 1000 dollars. So two weeks later, the car factory decides to produce 2000 cars. Do you think in 2 days your salary will increase? No right. Usually the basic salary remains the same unless you are being promoted. Unless you have experience and*

you are promoted then your salary will increase. So now because the car factory output increase from 1000 to 2000 cars, your salary remains the same because you are still the same position. That is only the firm is now producing more but this cost, the cost for the firm right, so firm has to pay wages to the workers right so now the cost will still remain the same. The cost will be fixed.

Lisa: *So as you can see fixed cost, meaning the cost that does not vary with output. As you can see there, even though the output has increased from 1000 to 2000, example of the fixed cost is the salary. It is the amount that does not change even though the output changes, example, rent, salary.*

Lisa: *rent for example, he rent the factory, so they write the agreement right, let's say, this company has to pay 10000 dollars. So usually, this rental agreement has expiry date. So this rental remains the same even though the output changes unless your contract reaches the expiry date. So no matter how much output increase, your rental remains the same.*

Lisa: *fixed cost the short form is FC right. So how you can get fixed cost? So it's*
$$FC=TC-VC$$

10.28 Lisa explains variable cost to Zaki.

Lisa: *so what is variable cost?*

Zaki then reads the answer from the handout.

Lisa: *What do you understand by the word variable?*

Zaki: *varies*

Lisa: *varies means change. Fix means the same*

Lisa: *meaning that variable costs change easily*

Lisa: *let's say the car factory, when he produces 1000 cars he need 4000 tyres. Right?*

Lisa: *So the raw materials are the tyres, the steel, rubber for the tyres. So if you are producing more cars, do you need more materials?*

Zaki: *Yes*

Lisa: *Yes right. So can you produce 2000 cars with the same amount of raw materials? Cannot right? So let's say if the amount of output you want to produce increase, you want to buy more raw materials, if you don't buy raw materials, you cannot produce more cars, right? Ok, you are now producing 2000 cars, so what happen to the cost? Increases right? So meaning in this case, when you produce more output, your cost of raw materials increase.*

Lisa: *Ok so examples of variable costs are like raw materials, power, over-time pay wages. Ok so do you know over-time pay wages?*

Zaki: *working more than usual*

Lisa: *Yes, working more than usual. So if he produce more output, so workers are paid more as they work longer hours so their over time pay will increase*

10.34 Lisa writes ' $VC = TC - FC$ ' on the whiteboard and asks Zaki to read the definition of TC (total cost) from the handout. Lisa then continues to explain about total cost, average total cost, average fixed cost, average variable cost and the marginal cost.

Lisa: So total cost is the total cost required to produce the output.

Lisa: ok now, just now we have talked about the fixed cost and after that the variable cost. Fixed cost is the cost that does not vary with output, it stays fixed at all times. Variable cost are the cost that varies, if you produce more, your variable cost increase, if you produce less, your variable cost will fall. So in this case, the total cost is all the cost, the sum of FC and VC. So the formula is $TC=FC+VC$ ³¹.

Lisa: So you just remember one formula $TC=FC+VC$

Lisa: It is simple, you just remember one formula

Lisa: What is the next cost?

Zaki: Average fixed cost

Lisa: ok so average fixed cost is simply your fixed cost divide by Q ³². Q is the amount of output the firm is producing. So the next one is average variable cost. It is simple, it's just the variable cost divide by the output.

Lisa: So next is the average total cost. So it is total cost divide by Q . Or you have FC plus VC over Q . so let's say if you don't have total cost with you, so you just write down $FC+VC$ divide it by Q .

Lisa: Next is the marginal cost

Lisa: Marginal is the additional cost incurred as a result of producing one more unit of output.

Lisa: Let's say, the firm is producing 1000 cars, he decides to produce one more extra car. So in this case, the marginal cost will be the change in total cost divide the change in total output.

³¹ $TC=FC+VC$: TC (Total Cost)= FC (Fixed Cost) + VC (Variable Cost)

³² Q : Q =Quantity

Lisa: *So do you have your calculator with you? We are going to do the exercise.*

10.42 Zaki is guided by Lisa in doing the exercise of calculating the cost of production.

Lisa and Zaki work together in solving the problems. The lesson ends at 11.00am.

5.5.3 Post-lesson interview

Lisa was not pleased with the lesson. There was only one student who was very quiet. Lisa said that there was one absentee but when present she talks in the class. Lisa reported to me that she did not like teaching the lesson because of the topic. Lisa preferred content explanation such as topics like cost and benefit of production and division of labour. Lisa said that she needed more planning for example, she should be reading more books before teaching the lesson,

Lisa: *I don't like the lesson. I don't like the lesson because of the topic. I prefer to teach topics like the cost and benefit of production like social cost, private cost, and division of labour. They ask me to explain. I prefer to explain. Teaching formula is so difficult. I am not pleased because one student was missing. This student is very quiet. The missing student was better. She can talk. So she is better. The lesson was dull because I have only one student just now. Not much feedback. Very quiet. Yeah, it sort of like ruin my mood to teach. I really don't like the topic. I don't know how to teach this topic.*

Lisa stated that the student might not understand the lesson as he had said to Lisa that he did not like her way of teaching,

Lisa: *Well, sometimes there are times when the students don't understand. They keep silent. So I have to ask him, he says he doesn't like my way of teaching. So after that, I understand why he doesn't understand.*

Lisa commented that the student might not enjoy the subject as the student did not like mathematics as well,

Lisa: *No. Not really. I can see from his facial expression. He doesn't like math as well.*

Generally, Lisa would usually introduce a new topic by asking questions of the students before she explained the content.

Lisa: *Like division of labour, I ask them what do you mean, I write on the board, 'What is labour?'. And then I asked what do you understand by the word division? So from their answers, I explain that division of labour means that for the labour, you divide the job which one person does a task and another person does other tasks. So I sometimes introduce like this.*

She would ask the students to give their own examples in the class,

Lisa: *Not all. Example, usually I am the one who provides notes with example. Sometimes like the student just now, I ask him the cost of production. I ask him for*

the examples. Give me some examples of some of the firm's costs? So he mentioned raw materials, labour you have to pay wages.

Regarding the other class, 4A, there are 26 students and all took economics. Economics is compulsory. So with that class, the students give lots of examples. Let's say, specialization in Brunei and Thailand. Why can't Brunei specialize in producing rice? I asked what is wrong with the labour in Brunei. One student said 'not enough people'. So I said what is necessary for them to do to have enough labour? She said import people. So I ask what about Thailand. Another student said, 'Thailand has a lot of people'.

Lisa: *So I said, what is necessary for them to do to have enough labour?*

Lisa: *She said that 'Import people' and so I ask what about Thailand? Another student say 'Thailand have a lot of people' I ask do they have to import? They say 'No need'. So umm.. you know... so which one ah... like in Brunei, they have to pay more right.*

Lisa: *Like they have to pay... they have to pay for the ticket again to come to Brunei. Pay for their medical fee and all this stuff.*

Lisa: *So I say like this, what if Brunei do, can produce rice? What do you think? Which do you think people prefer to buy? They say Thailand and I ask why? Because they say cheaper.*

Lisa did not use the Internet for her teaching resources as she was not sure which websites to use. She planned to use simulation in her lesson which she learned from her

methods of teaching course but she said that simulation would take up time. In the end, she did not use simulation,

Lisa: *I don't really use the internet. Not really good. I have problems in finding sources from the internet. I am not sure which website to use. Because I am new. Ok. I try to teach simulation. I learn in MOT economics. At first I intend to do simulation but in the end I teach division of labour because the class is just too big. It takes time and that class is 4A. This class is the one that is left behind. I don't know whether I can finish the syllabus or not. They were left behind because of the national day practice and holidays. So if I do simulation with them, I don't think I have done the division of labour. Their test paper is already set and we only have one period in one week to catch up.*

Lisa commented that the problem with economics was that it was not an enjoyable subject for students. Economics have calculations like mathematics. Lisa said that she should have registered for the methods of teaching for mathematics so that she could learn the way to teach mathematics calculations in Economics. The other problem with teaching economics that Lisa mentioned was the students' difficulty in understanding English. Lisa said that she sometimes had to use Malay language to explain to the students,

Lisa: *Sometimes I find that economics, the subject is not fun enough for students. Because it is like calculation. For calculation, I think if you want me to teach the calculation part, you have to ask me to go through MOT maths. Then I know what*

activity to give. Also sometimes I use Malay as well because they are not really good in English. Sometimes the word I use in economics, they are quite technical. For example, let's say the definition of division of labour. I have to give simple explanation in English, and sometimes I have to speak in Malay.

5.5.4 Discussion on Lisa's representation of 'cost of production'

Lisa stated that she was not confident in teaching the cost of production because of the formulas. Lisa said that she did not like teaching formulas because they belong to the subject mathematics. Lisa stated that she did not like mathematics, hence she did not like formulas. The formula for cost of production that she had to teach was total cost (TC) is equal to fixed cost (FC) and variable cost (VC). Lisa said that she did not know how to teach the content. In other words, Lisa was not confident in her content knowledge of cost of production and her pedagogical knowledge. She was saying that she did not know how to represent the content to the students. Furthermore, Lisa reported to me that she did not like the lesson because the one student that she had to teach was very quiet. There was lack of response from the one student when she asked him to answer questions.

Lisa chose to teach cost of production using the teacher-centred approach. The likely reason for her to adopt this approach was that she did not like the content and she did not like the lack of response from one student. Therefore, Lisa preferred that she did the explanation in the class and the one student listened to her explanation.

5.6 Case 5: Ahmad

5.6.1 Pre-lesson interview

The secondary school is located in the central town of Bandar Seri Begawan. It is a government co-educational school. Ahmad's classroom is located on the second floor of the building. The class is form four and the students are in the age group of 15-16 years old. There are 23 students in the classroom and the students are learning economics with Ahmad.

Ahmad's economics lesson is for one hour and ten minutes, starting at 7.30am. The theme of the lesson is division of labour. Ahmad aims that by the end of his lesson, the students should be able to explain specialisation and division of labour and identify the advantages, disadvantages and limitations of the division of labour. Ahmad plans to use a teacher-centred approach to teach this lesson of division of labour to the students where he explains and questions the students.

Ahmad plans to do a recap of the activity that the students did in the last lesson. Ahmad plans to relate the students' understanding of advantages, disadvantages and limitations of labour with their experience in the previous activity. He wants to encourage the students to give their own explanation and examples in the lesson. The previous activity was about experiencing the division of labour. In the previous activity, he had divided the students into groups and individuals to do tasks, that is, the students had to make a paper box. Ahmad intended that the learning outcome from the previous activity was for

the students to experience for themselves the difference between making a paper box individually and in groups. In the previous lesson, Ahmad listed on the board the students' responses about their experience of making the paper box. He then explained to the students that they had applied the economics concept: 'Division of labour'³³ in their activity (see Ahmad's class handout).

5.6.2 Lesson Observation

Date: 3rd March 2005

7.40 Ahmad enters a class of twenty-three students and they greet him, "*Assalamualaikum. Good morning Sir*". Ahmad then waits for them to settle down before he recaps the previous lesson. He asks the class the meaning of specialization but he immediately answers his question, "*Someone who is good in making one good. What do you think?*" The students do not reply. He then asks the class to give him one example. One student replies, "*Someone who is good in cutting wood*". Ahmad replies, "*What did you do during in the previous activity?*" The whole class keeps silent and do not reply.

7.46 Ahmad reminds the students to relate to the activity that they did in the previous lesson.

Ahmad: *How can you relate to specialization? It happens when an individual concentrates on one task. So if we talk about countries, for example, in Brunei, we are specialized in?*

³³ Division of labour is a particular type of specialization, where the production of a good is broken up into many separate tasks.

Class: *Oil and gas*

Ahmad: *Yes oil and gas. So any questions? Are you sure?*

7.47 The students keep quiet. Ahmad then asks the students to refer to their notes. He informs them that they are going to discuss ‘expensive machineries’ that are used in production. Ahmad wants the students to relate the terms ‘expensive machineries’ with the activity that they did in the previous lesson.

Ahmad: *Ok look at your notes. Now we are going to talk about the expensive machineries that can be used on the task. So last time, how can you relate to your tasks? Last time your expensive machineries were your ruler and scissors. So how can you relate your activity with this point?*

[The class remained silent].

7.49 Ahmad wants the students to explain about the tasks that the class did in the previous lesson. He had given the students an activity about division of labour where the students were divided into group tasks and individual tasks. Ahmad asks the class to compare the differences between groups and individual tasks, “*Try to compare with the groups and the individual?*”. Ahmad chooses one student to stand up but the student remains quiet.

7.53 Ahmad asks the class if they can help her out. But the class remains silent. So Ahmad picks another student. The student remains silent.

Ahmad: *Your scissors and rulers are your expensive machineries. Please explain to me the words, expensive machineries can be used in division of labour. Students work in group use scissors and rulers. But for individuals, he or she didn't use scissors all the time. So as you can see, the individual student did not use expensive machinery all the time, but in division of labour, their workers use scissors all the time. So do you get what I mean?*

The class: *Yes*

7.55 Ahmad asks the students repeatedly whether they have understood the lesson.

Ahmad: *Are you sure?*

Class: *Yes*

Ahmad: *Are you sure? Anybody who does not understand raise you hand? Higher..*

In reply to Ahmad's question, there are ten students who raise their hands. Ahmad picks one student (Wafri) who does not raise his hand and Ahmad asks him to explain to the rest of the class.

Wafri: *Division of labour use expensive machineries all the time for individual not all the time.*

7.57 Ahmad praises Wafri and repeats Wafri's answer again to the whole class. Ahmad then asks any students to read the next sentence in their notes. One student, Ali reads the sentence aloud to the rest of the class.

Ali: *Division of labour can economise expenditure capital.*

Ahmad: *Yes what do you understand by that? For example, making the paper basket.*

7.59 Ahmad turns around to the whiteboard and for the first time since he enters the class, he writes an example of division of labour on the board:

division of labour

2 group = 4 workers

8 workers

8 workers



2 groups

6 machineries

8 groups

24 machineries

8.03 Ahmad then questions the students about the example that he has written.

Ahmad: *So what do you mean when division of labour economise expenditure capital. Economise means you can reduce your spending on your machineries. Do you get me?*

While pointing at the board, Ahmad asks the class, “*So what can you see here? Do the figures agree with the notes?*”

The class replies, “*Yes*”.

Ahmad: *Who said yes? Why did you say yes?*

There is no reply from the students. Ahmad then asks the whole class to look at the board and asks them the number of machineries used for division of labour. There are four students who reply, “*sixty-six*”. Ahmad questions the class again, “*For no division of labour, how many?*”. Five students reply, “*twenty-four*”.

8.06 Ahmad chooses a student to explain to the rest of the class. The student reads the notes and says, “*Division of labour use less machineries than individual worker*”. Ahmad repeats again the sentence to the whole class. Before Ahmad moves on to the next point in the notes, he asks the class whether they have understood. The students remain silent. Ahmad picks another student and asks him to read the disadvantages of division of labour from the notes. The student stands and reads the points from the notes to the rest of the class.

8.09 After the student has read the notes, Ahmad explains the points to the students.

Ahmad: *Division of labour makes people do the same job everyday and this could lead to poor quality as workers can lose interest. For example, I want you to cut 1000 paper everyday, how do you feel? Yes like last time, I saw some students did shortcut, did not draw the line and did not cut along the line. So those are the disadvantages of doing all over again, the same tasks. Any questions? Are you sure? If you don't understand, raise your hand*

There are eight students who raise their hands. Ahmad chooses a student who does not raise her hand and asks her to explain to the rest of class. She remains silent.

Ahmad: *Explain again*

Ahmad: *Ok, workers begin to take less pride and become alienated from their work especially when they are doing small tasks.*

8.16 Ahmad then gives an example of a worker doing the same task in a production process.

Ahmad: *Imagine a worker doing just screwing, how you see?*

Marul: *not challenging*

Ahmad: *Yes compared to workers who are managers. So you want to have challenging work, you don't want a simple job because you have a high qualification. So any questions? By the way, are you proud if you are doing screwing?*

Class: *No*

Ahmad: *No see but I feel proud because not everyone can do it. For you, it is easy but for me, I am proud to do it. Any questions? Are you sure?*

Class: *Yes*

Ahmad: *Can I ask you a question?*

Class: *nooo*

Ahmad: *why?*

Class: *silent*

8.21 Ahmad asks another student to read the next point in the notes. After the student has read the point, Ahmad asks the class whether they understand. The class replies, “No”. Ahmad gives an example to explain the point.

Ahmad: *Ok this is about mobility. In division of labour, you are trained to do a specific job. For example, if your job is to fold paper, then you are trained to fold paper. For example, if your job is to draw a line, then you are trained to draw the line. In real situation, for example painting, you have to be trained to paint, you have to be trained to assemble the cars. For example, whatever you did last time, you have to be trained for 3 months because it is so complicated for example how to draw a straight line, how to cut paper, because you are only given one skill, one day, you are given machineries to cut all this paper, so we do not need workers to cut paper. So what happen to this worker?*

The class replies, “Unemployed”. Ahmad then asks the class to give reasons. One student says, “..because the machinery”. Ahmad continues expanding the student’s points.

Ahmad: *The individual is trained to do four different tasks, so even the cutting machinery to cut papers they still be able to do other tasks, the three tasks because they are already trained to do the three tasks, do you get me? Are you sure? Any question? Louder? Any question?*

8.27 There was no reply from any students. So Ahmad moves on reading the next point from the notes.

Ahmad: *Next, there is a high degree of interdependence in the production. Everyone depends on everyone else, therefore if one machine breaks down then the work factory stops.*

After reading this point, Ahmad chooses one student to stand and asks him to explain the point to the rest of class. The student stands but keeps quiet. Ahmad tries with another student and still there is no response from the other student.

Ahmad: *What happened last time when I took two from one group? Yes you were not able to finish because you are dependent on each other. Do you understand? Are you sure? Please explain to me again one more time. Do you understand? Are you sure? Please explain to me again one more time. Do you understand? If one machine breaks down often the tasks will break down. Do you understand? Are you sure? Really sure? If I ask you to explain one more time, will you be able to explain? Yes or no? Louder!*

There was a mumbling sound of “Yes” in the class.

Ahmad: *Hands up who said yes? Hands up...higher, higher*
The class keeps quiet.

8.33 Ahmad asks the class if they do not understand or unable to explain. The students reply that they are unable to explain. Ahmad then replies, "*So how are you going to pass your test?*". There was no answer from the students.

Ahmad then writes on the board: 'A-B-C-D-E' and says to the class, "*If no C, then no finish good, remember that!*"

The lesson ends at 8.37am

5.6.3 Post-lesson interview

After the lesson, Ahmad was interviewed and asked to reflect on his lesson. Here, I offer a synthesis of his responses.

Ahmad was not pleased with the lesson because many of the students did not understand the content. He was disappointed that the students could not relate and link the lesson content with the previous activities. Ahmad found that the students had difficulties in understanding and explaining the advantages and disadvantages in their own words.

Ahmad: *I find that some of the students may have some difficulties to understand especially the disadvantages and advantages and then I find that the problem is that they are not able to relate to the activities they had experienced. I thought that they would link, relate and understand with the activities.*

Ahmad said that in the lesson, he just read the content from the notes. He expected that the students would find the notes difficult to understand and hence he planned to relate the content in the notes with the activity in the previous lesson. He thought that the students would understand that the lesson content was related to their experience in the previous activity.

Ahmad: In the lesson just now, before I relate to the activities, I just do read through the notes. But the problem is that this may be difficult for students to understand. That is why I use activities. Let them experience everything first so that they have some ideas about division of labour and its advantages and disadvantages.

Ahmad viewed the lesson as a discussion. He did not think that he wanted to change anything about the lesson. However, if he was given the chance to do the previous activity again, he would ask the students to decide on allocating the tasks amongst themselves.

Ahmad: In the case of division of labour, for the activity, I only focus on dividing the workers the way I want to, so maybe next time I will ask them to decide how they want to produce. For the lesson just now, I don't think I want to change anything. It was just a kind of discussion.

Ahmad said that the problem in the lesson was with the students. They had difficulty in understanding English, explaining in English and were not motivated to participate in the discussion.

Ahmad: *But for the students, the main problem for the whole lesson is that the students are too shy to explain and they have difficulties to explain in English. And some of them are not motivated to participate in the discussion.*

Ahmad learnt that he should not assume that students know everything. He had to ask the students repeatedly whether they have understood the content, the advantages and disadvantages of division of labour. Yet, the students were too shy to answer him. So it was difficult for him to know whether the students had understood or not.

Ahmad: *Yes, overall, I have learnt one important thing which is that we cannot assume that students know everything. When we teach, we already know everything, but students may not understand or may not know what they are trying to say. That is why we have to ask over and over again just to know whether they understand or not. I am not sure they understand or not. As you could see just now, their problem is that they are too shy to explain. They are not actively participating in the discussion. That is why it is hard for me to evaluate and assess their performance. But hopefully, next week, I will give them some exercise to assess this lesson just now.*

Ahmad noticed that the students were not enjoying the lesson that day. However, he added that the students had enjoyed the activities in the previous lesson.

Ahmad: *Yes, for the topic of division of labour. I think in terms of doing the activities. They did enjoy. Some of them did learn. In the activity, they were doing their work seriously and they try to make as much as possible. But in terms of students' lesson just now, maybe they don't like doing discussion or maybe they are not interested. They are not enjoying the lesson just now.*

Generally, Ahmad would usually introduce a new topic by either linking the activities that the students did in the previous lessons or by asking the students to give their own examples. For example, for the topic economic system, Ahmad had asked the students to give reasons for the production of goods by the public and the private sectors.

Ahmad: *I include the activity just to give them some ideas. If not, I just ask them questions, just to start over for examples, the economic system. I ask them why some goods are produced by the government and why some goods are produced by the private sectors. Just to give them some ideas.*

Ahmad depended on the textbooks for his handouts. He only sometimes searched the Internet for teaching materials. He had not used any newspaper cuttings for teaching.

Ahmad: *Sometimes I search for the internet. I search 'biz-ed', the website was introduced by my supervisor. I don't use newspaper cuttings. My notes are mostly from the textbooks.*

The university courses had helped Ahmad to realize that students need to understand the lesson content. Ahmad learned that he had to think of suitable content for teaching so

that his students could understand. He learned that he also had to make his teaching interesting for his students.

Ahmad: *Ok, the most important thing I have learned is that, try to make students understand the sources and not try to focus on remembering the concept. If students understand, instantly they will remember. Variation is important because they are able to differentiate different things at one time. Yeah, students are able to see the differences. That is what is important in teaching the students. So MOT (methods of teaching) was really helpful. We also learnt about classroom management, and psychology, where we have to know when students are interested. For economics, the content is too broad because when I do the lesson plan, I have to go down to students' level, to O-level. So I have to think and go to that level.*

There were three problems that Ahmad encountered in his teaching. First, Ahmad had difficulties in linking some topics with his lesson because the students had not learnt them. Secondly, Ahmad found that the students were reluctant to participate in the lesson. Thirdly, Ahmad had to explain in Malay language to help students understand the content.

Ahmad: *The main problem is that explaining some question especially, for example, in the market economy system, they mention about demand and supply, but students have not learnt about supply and demand concept. So it is difficult for students to discuss when we are talking about the market system, demand and supply. So when students haven't learnt about the concept of demand and supply,*

it is difficult to explain them in detail. Another problem is that I have to use Malay when some students find it difficult to understand the concepts in English. The other problem is students' participation. Sometimes they are reluctant to participate, reluctant to explain and so on.

5.6.4 Discussion of Ahmad's representation of 'division of labour'

Ahmad was not aware that the way he represented the content to the students was not clear. Ahmad found difficulties in getting responses from students. Actually, the questions that he wanted the students to answer did not guide the students towards reaching the correct answer. In consequence, students found difficulty to relate the concept, 'division of labour', with the paper-cutting activity that they did in previous lesson.

Ahmad's examples on expensive machineries were not suitable. He had used scissors, screws and rulers as examples of expensive machineries. Ahmad should have given examples of the production process in a factory where expensive machineries are used. He was unable to relate students' understanding of production to the production process in the real world. Ahmad's chosen examples of expensive machineries showed that he wanted the students to relate their experience in their previous activity with the division of labour. He did not think of representing the content with other examples beyond his notes and 'the paper cutting activity'.

5.7 Case 6: Zahrah

5.7.1 Pre-lesson interview

The secondary school is located outside Bandar Seri Begawan. It is a government co-educational school that offers form one to form five levels to the students. Zahrah's classroom is located at the end of the school block. In the classroom, the students are seated in rows where the boys sat at the front and the girls behind them. There are twenty-four students in the class and their age group is approximately 13 to 14 years old. The class is Form two and the subject is Commerce.

Zahrah's lesson is for 35 minutes: it starts at 9.35am and ends at 10.00am. The theme of the lesson is the lending of money by a bank. In Zahrah's lesson plan, her objectives for the lesson are for the students to be able to 1) identify and describe the lending of money by a bank, and 2) distinguish and describe the differences between a bank overdraft and a bank loan.

Zahrah says that she has used a form four textbook for the students' handouts. She says that she has extracted information from the textbook that are suitable for the students. She states that most of the content in the form two textbook is outdated and she says this is the reason for using the form four textbook. However Zahrah says that she has to simplify the form four textbooks for the handouts. Not only that, Zahrah says that she often has to translate the words into Malay when teaching because her students sometimes do not understand English words. Zahrah's co-operating teacher advises her

to either provide the students with handouts or make them write their own notes. Zahrah says that she prefers giving the students handouts because she can save time.

5.7.2 Lesson Observation

Date: 28th February 2005

9.20 Zahrah enters the classroom and the students greet her. The students are from two students (13-14 years old). There are 24 students in total. In today's commerce lesson, they will learn bank loans and bank overdrafts with Zahrah.

9.25 Zahrah lets the students settle down. Before she introduces the lesson about bank loans, she asks the students about the previous lesson but the students do not reply to her questions. Zahrah answers her own questions.

Zahrah: *Ok now, tell me is bank overdraft short term or long term borrowing? Short term borrowing. Is the interest low or high? Yes, short term borrowing, that's why it is high interest.*

Zahrah: *ok now today's lesson, we are going to learn about bank loans. Now, could you some of you, do you know bank loans? Yes Daniel do you know? Last time we learnt about what is bank loan. it is supposed to be?*

Zahrah: *Yes, lending of money from the bank. Long term or short term?*

Daniel : *long term*

Zahrah: *Long term. Usually bank loan, if we want to pay back, usually take time, take longer time, maybe more than a year, ok?*

Zahrah then writes 'long period' on the board and says to the students, "That's why it is known as long term borrowing"

9.28 Zahrah reminds the students that bank overdraft has low interest while bank loan has high interest.

Zahrah: *Ok now, which of these two types of borrowings have high or low interest. Bank overdraft has low interest, while bank loan will be high or low? Students?*

Daniel: low

Zahrah: *Why? Bank overdraft is short and has low interest, so bank loan? Bank loan has high interest because you pay back at long period of time. Now, how do the interests being charged? Well, for bank overdraft, the interest charge hmm..the actual money withdrawn but for bank loan quite different. The bank charge interest on the money that you borrow. The whole amount of money, let's say you borrow money \$10000 from the bank. The \$10000 your money, will be charged interest. Ok, whereas for bank overdraft, if you are the current account holder, you have \$5000 in your account. So you want to withdraw money, overdraft money 2000 so the 2000 will be charge interest. Not the 5000. Ok? So that's the difference. Bank loan the whole amount of money. You borrow \$10000,*

\$10000 will be charge. For bank overdraft, if you have \$5000 in your account, \$2000 will be charged. For example, Ali borrows money 2000dollars, for a year, 8% per annum. Now, how do you calculate the interest? Daniel?

Daniel does not reply.

9.34 Zahrah writes on the board:

$$2000 \times 8\% = 160$$

She explains to the whole class that the interest is \$160.

***Zahrah:** the amount of money borrowed $2000 \times 8\% = 160$ so this is the amount of interest. So the total amount you have to pay back in a year. How much? Aisyah?*

Aisyah does not reply.

9.35 Zahrah writes on the board:

$$2000 + 160 = 2160.$$

***Zahrah:** So this is the total amount of money that Ali has to pay a year. So compare to overdraft, which one is high or low? Bank overdraft, low, right? Whereas bank loan charges high interest. For bank overdraft you have to be*

customer, but for bank loan, you don't have to be. But depends on how you pay back.

Zahrah writes on board:

Bank loan does not have to be the customer of the bank

9.38 Zahrah checks with the students of the term 'security'. But the students do not reply to Zahrah's questions. Zahrah uses Malay words to explain security.

Zahrah: *Now, last time we talk about security. What is security?*

Zahrah: *In your own understanding? Security? If you are a banker, what do you want from your borrower? So what do you want them to do if they cannot pay back? 'Gadai barang, gadai rumah' (their property as guarantee). So you know now? Security? Now, for bank loan, there is a formal procedure. What is procedure? You have to fill forms, and all of your personal data to the bank. That's why the difference bank loan and bank overdraft. Bank overdraft, you are the customer of the bank, they don't need your details, whereas bank loan, if you are not the customer, you have to fill up the form and tell them, your data and everything. And for bank loan, the bank also needs references.*

9.42 Zahrah writes down the meaning of references on the board and tells the students to write them in their notes:

References a person who provides information about your character and abilities for e.g. your parents/siblings, close relatives even your boss.

9.45 Zahrah asks the students if they understand the notes. She questions the students while they check the answers in the notes. Zahrah sometime repeats her questions in Malay sentences.

Zahrah: *Now class, do you understand these notes? Now, for the bank loan, how long does it take for the lending of money? Mona? Is it usually for long or short?*

Mona: *long*

Zahrah: *Yes, long period of time. Siti, so it is also known as?*

Siti: *long term borrowing.*

Zahrah: *Now which of these two types have high or low interest? 'Mana satu yang high or low kena charge?' Overdraft high interest because? Ahmad?*

Ahmad: *short period of time*

Zahrah: *Short period of time whereas bank loan? Long period of time you'll be charge low interest, get it? Now, move on. How do interest being charged? 'Camana interest kena charge?'*

Zahrah: *Bank overdraft?*

Ali: *actual amount of money*

Zahrah: *Actual amount of money, thank you Ali.*

Zahrah: *Sara, for bank loan? How is it being charged? Actual or the whole amount of money?*

Sara: *whole amount*

Zahrah: *whole amount of money, ok? Next, who can borrow? 'Siapa boleh meminjam?' Bank overdraft?*

Zahrah: *the current account holders, so the bank loan? Yes, it does not need to be customers of the bank.*

9.48 **Zahrah:** *Now for both bank loan and bank overdraft, need to provide security. If you don't provide security, the bank will not loan you money. 'Kalau kamu unemployed', will the bank pinjamkan? Yes or no? why? Because you have no job. That's why. You don't have security. Now, for the bank loan, it is only suitable for a person who wants to borrow large sum of money. Kalau kamu kan build a house, a businessman, you need a lot of money. So that's why they apply bank loan. To? Finance. What is finance? Finance your business? Give? Give income*

9.52 Zahrah writes the word '*factor*' on the board. Then she explains the three factors for a bank loan.

Zahrah: *The banks have to consider the following factors for interview. To give you bank loan. The first one is the bank will want to know about your characteristics. Will the bank offer you loan?*

Ali: *No*

Zahrah: *Why? Because you are jobless. You don't have any work. The second one is purpose. Why do you want to have a loan? For example, you want to buy? Expensive things. Car? House? The third one is nature of security. For example, house, cars. Applicant has the ability. 'Kira bayar balik'. The fourth one is the repayment of the loan. How long you are able to pay back. One year, two years, 5 years.*

9.56 After Zahrah finishes explaining all the factors, she gives the students homework to do. The lesson ends at 9.57am.

5.7.3 Post-lesson interview

Zahrah was not pleased with the lesson. She said that the students didn't know how to answer her questions and didn't understand the handouts. She was dissatisfied that she was not able to discuss with the students about the factors that banks consider for loans as she had to repeat many of her explanations in the lesson.

Zahrah: *It is not what I expected. I haven't really discussed the factors in considering granting people for loans. Actually I want to discuss and give examples but time is limited. It was only one period (sigh). I was not pleased with the lesson because the students still don't know how to use the notes that I gave them. They don't really look at the notes and read. They are always waiting for me to explain. So it is really frustrating. But then that is how they work. The notes just now were to fill in the blanks. So the kids don't know what to write there. They will wait for me to write the answers on the board or I talk.*

Zahrah commented again that she was unhappy that the students were not able to understand the handouts. She said that she had to simplify many words for the students which had taken a lot of her time.

Zahrah: *I'm not satisfied that they don't really know how to complete the notes. Some didn't know what to do. So somehow in my lesson just now, I have to discuss again how to do and I have to repeat again and again. So affecting the lesson. I could have covered other things that I want to discuss. The subject teacher said that it might take me only one period to discuss bank loan and bank overdraft. But when discussing with them the first time, I discussed about bank overdraft. They don't know about security and all the other terms, so I have to again discuss with them. So more time explaining in Malay terms that they know and in English terms, somehow I have to take time writing down on the whiteboard.*

Zahrah reflected that she should have use more teaching aids in the lesson, such as using pictures.

Zahrah: *I should more teaching aids. For example, like security. I should show pictures like how the pictures of household, so the students will say.. 'ohh..that's how it works'. So now I realized that I should have that kind of thing. So might be*

in the future lesson, I have that kind of evidence like teaching aids. So next time I should add more teaching materials.

Zahrah stated that the students were bored in the lesson. She found commerce to be a difficult subject for the students to learn. She had asked the students and they replied that commerce is boring and difficult to understand. The students wanted Zahrah to speak Malay to them but Zahrah stated that she used both Malay and English to help the students to understand commerce.

Zahrah: *Today's lesson, I think most of them are quite bored just now because the topic is bank loan. They will have fun if I give crossword puzzles, matching item, and group activity but I was not able to give them for today's lesson. In previous lesson, yes, they have enjoyed the group activity for types of accounts and the crossword puzzles for means of payment and services of the bank.*

I have interviewed the students because they seemed to be like bored, restless during the commerce lesson. So I asked them how they feel in learning commerce? So most of them say its boring. Its very difficult to understand. So I ask them how do they want me to teach them? So one of them say 'can you teach us in malay please?'. So I just say I am trying my best actually. I cannot teach them in Malay. I have to teach in English. But somehow I prefer to use both. English and Malay so that they have wider understanding. If they don't know the words, I'll give them the meaning. Commerce is a difficult subject.

Zahrah said that she had to learn the content of the commerce curriculum in order to teach them. She argued that she found commerce difficult when she was a student and now that she is a teacher, she found teaching commerce to be difficult. Zahrah found difficulty in finding good activities for the students.

***Zahrah:** I have to learn commerce again. When I was a commerce student, I found commerce is a difficult subject to learn and now teaching it is quite difficult because the key points are outdated and I have to include other information which is sometimes not reliable. Some of it might be difficult so I find it very difficult to teach. I have to grasp all the new information and old information into one. That's why in finding a good activity for the lesson is really difficult.*

5.7.4 Zahrah's representation of 'the lending of money by a bank'

Zahrah tried to help the students understand the lesson by asking them questions. However, she said in the post-lesson interviews that she was not pleased with her lesson. She said that the students were not able to answer her questions and did not fully understand her explanation.

From my observation of her lesson, Zahrah was confused about the differences between bank loans and bank overdrafts. She had told the students that bank loans have high interest and bank overdrafts have low interest. In fact, it was the opposite. Zahrah was not even aware that she had made the mistakes. The students would have been confused with the content.

Zahrah was using Malay language often in her explanation. She repeatedly translated her sentences into Malay. She said that she wanted to help the students to understand. Her way of teaching was a teacher-centred approach where she explained and questioned while the students sat passively. She said that she was disappointed that the students did not understand her 'simplified' notes. Zahrah was struggling to represent her content knowledge for students' understanding.

5.8 Case 7: Charles

5.8.1 Pre-lesson interview

Charles is 25 years old and he is a pre-service teacher in economics. His lesson is for one hour and ten minutes. He teaches commerce to Form two classes consisting of 13-14 year old students. The theme of the lesson is 'cheques'. The class consists of 26 students. The students are a mixture of boys and girls and they are sitting in rows. Charles plans to first review the previous lesson about bank loan and bank overdraft for ten minutes. After that, Charles plans to explain the other services provided by the bank: the characteristic of a cheque, the differences between bearer cheque and open cheque and the three types of endorsement. He plans to spend 55 minutes covering all these topics. Finally, for the last 5 minutes, he plans to recap and give classwork to his students. But the classwork can be done as homework if the students do not have the time to finish the exercises.

Charles will use the handouts that he has prepared. The content of the handouts comes from the textbook. Charles says to me that he has to simplify the textbook for students' understanding. The textbook used is a commerce textbook intended for higher level, that is, commerce for 17-18 year old students. The textbook is also not local, and therefore the examples given in the textbooks are foreign. Charles will use local examples such as local banks' cheques as examples in his handouts.

5.8.2 Lesson Observation

10.13 Charles enters the classroom. The students greet Charles and settle down quickly. Charles immediately begins the lesson.

Charles: *Today we are going to look at the services provided by the bank Ok, last class we talked about borrowing what types of borrowing did we talk about? Bank overdraft and?*

Ali: *bank loan*

Charles: *ok*

Charles: *Are they the same thing? They are not the same right? Ok you, bank loan, can you remember about bank loan?*

Daniel: *long period*

Charles: *What about bank overdraft?*

Daniel: *short period*

Charles: *good. Ali, the interest charge for bank loan, is it higher or lower?*

Ali: *lower*

Charles: *lower? Higher. Bank overdraft? Lower. Bank loan is usually longer. It takes years to finish up bank loan. Right?*

10.15 Charles then explains that there are three services provided by the bank: the standing order, credit transfer and direct banking. He reads out the definition of standing order to the class and gives his own example of a standing order to the students.

Charles: *What it means that, your salary is \$2000, so you go to the bank, and ask the bank to pay your car loans, credit cards, et cetera. What it means you have a sum of money and you go to the bank, the bank will pay your bills for you. For example, car loans, electricity bills, gas bills, house loan, telephone bills, so the bank will settle for you. Clear now?*

10.17 The students do not reply so Charles continues and reads the definition of 'credit transfer' to the class.

Charles: *One good example for this is government servants, ok 'pegawai kerajaan'. Who pays their salary? To the people working in government. The government right? Correct. Do you think that the government issue cheques everyday? No What the government do is the government bank in their accounts. So for example teachers, lets say their bank account is IBB (Islamic Brunei Bank) so every month they will just check IBB and they will know whether they get their*

salary. Understand? So the government pay the money to IBB and IBB will put the money into their bank account. So this is credit transfer. Understand?

10.19 Charles reads the definition for direct debiting. He explains to the whole class that a standing order and direct debiting are quite similar to each other.

Charles: *Now standing order and direct debiting are more or less the same. 'Kurang lebih sama'. What happen here is that standing order, the date is fixed. For example, on the 10th January, the bank will pay everything for you. For direct debiting, there is no problem. You can go, on the 16th, 17th or anytime you want within a month. Let's say you receive your salary, and ask the bank to pay your bills anytime. So do you understand?*

10.20 Charles: So there are three types of services provided by the bank, standing order, credit transfer and direct debiting. Now, are these the only services provided by the bank?

Ali: *No*

Charles: *What are they? Can you remember? Ok, if you go to the bank, what do you do in the bank?*

Hanif: *Take money*

Charles: *Withdraw money. What else?*

Hanif: *'Masukkan duit' (deposit money)*

Charles: *deposit money. What else you see, the board with numbers?*

Ahmad: *Atm*

Charles: *what else, the one with numbers and currency*

Mona: *currency exchange*

Charles: *currency exchange. Very good*

Charles: *any more? What can you do? If you don't have money, what do you do?*

Wafi: *borrow*

Charles: *Yes you borrow from the bank. You can apply bank loan. So there are a lot of services provided by the bank. And we touched on that the last class. Today, we just touch on three. Actually there are more.*

10.21 Charles explains to the students that they have finished the topic banking. When he asks the students whether they have any questions, the class replies “No”. Charles then explains that the next topic that they will learn is about ‘cheques’. He distributes the notes on cheques to each student. After all the students have got their notes, Charles stands in front of the class holding a big cheque in his hands. The cheque is a sample of a cheque for one million dollar that he has borrowed from his friend. He tells the students that the format of the cheque that he is holding is the same as the cheque in their handouts.

10.25 While holding the big cheque in his hand, Charles explains each feature of the cheque to the whole class.

Charles: *number one, the date is important. It will tell you when you can cash the cheque*

Charles: *Second one is drawee. So if you want to cash this cheque you have to go to Hongkong bank.*

Charles: *The third one is drawer. You are the drawer, the person who draws and sign the cheque. So if I sign the cheque, then I am the drawer. Clear?*

Charles: *the payee is the person named on the cheque. Who am I paying to? I can put the name of whoever I want to give. All right?*

10.26 Charles gestures the features of the cheques and the students sit passively listening to Charles' explanation.

Charles: *..and then you have to put in the correct number here and you write the spelling of the number here. This is the account number and here is the number of the cheque. So clear? Any questions?*

Class: *No..*

Charles checks students' understanding by posing questions about the cheque such as where they would write a different amount of money and about cashing the cheque in different banks.

Charles: *Let's say if I put 100 here and then here I put one thousand dollars, can I cash the cheque?*

Class: *No..*

Charles: *With this cheque, can I go to Standard Chartered Bank?*

Class: *No..*

Charles: *Yes, I can. I can go to standard chartered and cash this Hongkong bank cheque. After few days, the money will be deposited into my account. Clear? But if you want to cash the money on the spot, you have to go to Hongkong bank, but you cannot cash this in standard Chartered bank on the spot. So you have to wait for few days for the money to be deposited into your account. Clear?*

Charles: *Now, you know how a cheque looks like. But what is a cheque?*

10.30 Charles reads aloud the definition of cheque from the handout. At this point, Charles looks a bit flustered as the lesson has ended but his lesson should end at 11.20am. He asks the students to read their handouts again silently.

10.50 Charles tells the students to group themselves in pairs or in group of threes. The students shuffle their seats and find their own groups. There are eight groups in total.

10.54 Charles lets them settle down and gives them the instruction for the activity that they have to do in their groups. He holds the page where there is a picture sample of a cheque and talks fast as he gives the instructions to the class. He uses the students as examples for the activity.

Charles: *One of your friend, businessman, now what I want you to do is, one friend will write let's say for example, Fadli owes Ahmad money, what is your bank, what bank you are using, what is your account number, and how much he owes you. And what Ahmad will do, Ahmad will issue a cheque, get a piece of*

paper and you draw a cheque, ok. You draw the cheque like this. So those in three in one group, Ahmad will write to Fadli, how much Fadli owes him, and your name and also your account number. So you write a cheque and give it to him. The rest understand? Know what to do? After that, you have to decide to endorse the cheque or not. I give you 15 minutes to do all this.

After explaining to the whole class, Charles approaches each group and explains again what to do. He has to guide the students to draw a sample cheque and write their names as in the cheque format.

11.20 Charles tells the students to finish. Each group submits their sample cheques to Charles. Charles collected all the cheques. The students stand up and say their “Thank you teacher” and Charles exits the class.

5.8.3 Post-lesson interview

Charles was quite satisfied with his lesson. He was pleased that the students were cooperative in the lesson and that his objectives were achieved. However, he realised that he had finished 30 minutes earlier than expected. But he was quite proud with himself that he had come up with the last minute activity for the students. He was pleased that the students were cooperative during the activity. Charles was happy that the students were interested in doing the activity and he enjoyed students’ participation in the classroom. If he was doing the lesson again, he would include more sub-topics and prepare more exercises to cover the extra time.

Charles had learned so many things from the lesson itself. He was not familiar with the topics of cheques and endorsement as he did not even have a cheque book himself. Therefore, the lesson content was new to him.

Charles did not take commerce in lower secondary. He also did not learn any commerce at the university where he only learned economics content and the methods of teaching for economics. Charles viewed commerce as more general and easier compared to economics.

Charles was satisfied that the students had understood the lesson as students answered his questions during the activity. He thought that the students had enjoyed the lesson because from his experience of teaching the class, the students had always enjoyed doing the things that he taught them.

Charles only used one textbook for teaching resources. Students also have this textbook. But Charles only used handouts with the students in the classroom. He said that he would simplify the content from the textbook and provide it as handouts to the students.

In teaching commerce, Charles commented that he needed to apply general knowledge. He found that he had to use his pedagogical knowledge of psychology, such as how to motivate them. He wasn't sure whether his knowledge that he learned from methodology was applicable to his teaching practice. His experience of peer teaching at the institute

was different as he was teaching his friends with complex learning activities. In the real classroom, he wanted the students to understand so he had to teach in simple terms and use simple activities.

Charles: *I'm not quite sure about method of teaching because what we experience at UBD (university) is totally different from here. Especially our peer teaching at UBD. You can't apply in this school because at UBD, our students are our friends. So they are high level. Like at UBD, we can use complex activities. They are able to think easily. Students here, they have limited ability only. So it's difficult to apply. Here, I have to give simple activities. And the terms, words, instructions should be very clear for the students to follow.*

Charles stated that his problems with teaching commerce were that he needed to simplify his content knowledge to teach students. For example, he needed to adjust the content level to suit the students' abilities. Then, Charles needed to use his bilingual abilities a lot to make students understood what he was teaching. He had to use Malay words and explain in Malay. Next, he realized that students lacked general knowledge about Brunei's economy which made it difficult for Charles to relate subject content to students' experience.

5.8.4 Discussion of Charles' representation of 'cheques'

Charles was employing a didactic approach in his teaching. He relied heavily on explanations based on the handouts. He was transforming his knowledge by telling the students of what he knew. Students were expected to listen to his explanation. This kind of teaching might be based on his own experience of learning during his schooldays. He merely spoke about his main points and expected the students to listen to him. He did not illustrate his points visually therefore the whiteboard was barely used in his teaching. There were too many objectives to be achieved in one lesson. However it seemed that he only emphasized the features of the cheque as his main objective for his lesson; students had to answer questions regarding features of cheques for their classwork and students had to do an activity creating a cheque.

The instructions for the activity themselves were complicated and hence, students became confused and did not know what to do. Besides features of cheques, the word 'endorsement' was also an important concept. Charles did not seem to realise that students needed to understand the concept of endorsement in the lesson. The lack of syntactic knowledge to deliver the content and his only partial understanding of substantive knowledge of commerce as a subject affected the way in which he transferred his knowledge to the students.

Charles made an effort to analyze and simplify the textbook for the handouts. He prepared the handouts to aid the students' understanding. The handouts were his way of communicating his knowledge to the students. However, I noticed that his lack of real

knowledge about the features of cheques was affecting his teaching. For example, he didn't know what a real cheque looked like and this affected the objective of the students' activity. The role-play activity for the students was supposedly easy to understand, yet, again his lack of substantive and syntactic knowledge made the activity difficult for the students to follow. In the activity, the students in each group had to be told what to write in their sample cheque by Charles. The objective was to write a sample cheque. However, students were confused by the instructions and had to be told by Charles repeatedly. As an observer, I was also confused by his instructions and found that his lack of pedagogical repertoire had affected the activity as a whole. Therefore, his lack of knowledge of cheques should have made him prepare more thoroughly before he taught the class.

In the classroom, he represented his knowledge through explanation. Yet, his lack of pedagogical repertoire affected his explanation. Whether it was on purpose or not, with or without his knowledge, Charles delivered the subject content by 'telling the students' of what he knew without being aware of whether or not the students understood him. The whole lesson was an explanation of cheques and there was a lack of student input as he answered his own questions.

5.9 Case 8: Munira

5.9.1 Pre-lesson interviews

The secondary school is located in the central town of Bandar Seri Begawan. It is a government co-educational school that offers form one to form five levels to the students.

The range of students in the school is between 12 and 17 years old. Munira's classroom is located at the second level of one of the school blocks. The classroom is spacious and in the classroom the students are seated in rows where the boys sat on one side and the girls on the other side. There are twenty-one students in her class and the students are in the age group of 12- 13 years old. The class is Form 1C and the subject is commerce.

Munira is in her early twenties and she is a pre-service teacher in economics. Munira's lesson is for seventy minutes: it starts at 12.50 pm and ends at 2.00 pm. The theme of the lesson is 'types of occupation' and she plans to use a 'picture-clippings' activity. Munira's objectives for the lesson, as stated in her lesson plan, are for the students to be able to name the different types of occupation, explain each type of occupation, and recognize the different types of occupation.

For the preparation of her lesson plan, Munira says that she has referred to the scheme of work and thought of the students' ability. She says that she has to make sure that her students have really understood the previous topic before she can move on to a new topic. Munira has also asked some of her friends and one of the teachers for ideas to teach the topic. However, Munira says that she does not get any help from her co-operating teacher, *"Not my cooperating teacher because it is difficult to meet her since she is teaching in the morning and I am teaching in the afternoon. So most of the teaching ideas are mine"*.

In order to make her lesson explicit to her students, Munira says that she follows a 'structure' that was given by one of her lecturers, "*I'm doing the objectives step by step. For example, I have to think first about the introduction before I move on with the lesson development*". She says that she has to make the students understand the lesson. If her students do not understand and are still confused, Munira says that she will recap the lesson again.

Munira: I have to make it understandable for the students for example money especially the characteristics and functions of money. They got confused between characteristics and functions. I had to explain to them that function means 'use' and characteristic means 'what does it do?'. And the term like measure or value of money which is the characteristic of money, they were really confused about it. And I have to recap over and over again. I have to explain over and over again. I usually go with the flow. I got two classes, form 1C and form 1E. For form 1E, the students are really active, so I usually question them, do activities and they like to get involve. But for form 1C, the class is a bit passive and it takes time for them to get involve in any activities. So what I do, I usually just ask questions".

Munira said that she used the brown textbook and her sister's commerce notes as her references for her teaching. For the textbook, Munira said that she had to simplify the words because she said that some of the words were difficult for the students to understand. She said that she didn't find teaching resources from the Internet. For the lesson, she said that she had used the pictures from the computer such as the pictures for the types of occupation from the 'print-artist'. Munira said that she would put all her

materials such as her notes in her folder as she might need them in the future. She said that these materials would be her teaching aids, *“I put all the material in one place so it’s easy for me to use it in the future”*.

5.9.2 Lesson observation

Date: 21st February 2005

1.11 Munira enters the class and her form one students (12-13 year olds) greet her immediately. Munira lets the students settle down before she begins asking the students questions that relate to the previous lesson. The previous topic was about production. The students reply to Munira’s questions by referring their notes for the answers.

1.12 Munira moves on to the topic for that day which she writes on the board: ‘the types of occupation’. Munira reads the definition of occupation from the notes and asks the students to list the types of occupation. The students check the answers in their notes:

Munira: *How many types of occupation are they?*

Students: *Five*

Munira: *Yes. Direct services, Machinery, Extractive, Commercial and Constructive.*

Munira: *What does extractive means? It means taking out.*

1.16 Munira continues reading the notes to the whole class. She explains the difference between exhaustive and non-exhaustive. Munira then proceeds to explain about 'finished goods' and 'semi-finished goods'. After this, Munira explains about the different types of occupation and gives examples to the students. The students keep silent as Munira talks to them.

Munira: *...Manufactured good is exhaustive. It cannot be produced again. Do you understand? For example, oil. After awhile, the oil is used up. So that's what we mean by exhaustive. Forestry is non-exhaustive. You cut out the trees right? How do you reproduce the trees? You do replanting. So remember an example of exhaustive is raw materials that you cannot reproduce but non-exhaustive is that you can reproduce. Finished goods are final goods, semi-finished goods are half-way finish for example, tyre can be considered as semi-finished good. Tyres you can assemble with cars and cars are the final products. Ok? For example, chocolates are finished goods, final products. So an example of manufacturing occupation is potteries.*

1.37 Munira tells the students that they are going to do an activity. The activity is about the students identifying the different types of occupation. She tells the students to pack away their notes and she instructs the students to divide themselves into four groups. Munira says to the students that they can refer to their friends in the same group but not their friends from other groups. If she sees them breaking this rule, she says that she will deduct marks. On the whiteboard, Munira draws four columns for the answers from each group.

1.42 Munira gets the students attention before she starts the activity. She pastes a picture of a doctor on the board. She instructs the students to write the answers on the paper and discuss which types of occupation the picture belongs to. The students discuss the answers in their groups.

1.43 Munira asks one representative from each group to write their answers on the whiteboard. Each representative must write their answer simultaneously in their column. After all students have written their answer, they sit down. Munira then tells the class that the answer is 'direct services'. She gives marks for the correct answer and only one group gets it wrong.

1.46 Munira takes out another picture and the students in groups have to discuss the type of occupation it belongs to. The next picture is a miner. Later, when Munira informs them that the answer is extractive occupation, the students get excited and clap their hands for getting the right answer. After this, Munira then puts up pictures of a soldier (belongs to direct services), a teacher (belongs to direct services), a banker (belongs to commercial) and a farmer (belongs to extractive). Some of the students get a bit confused when discussing the picture of the banker. Two of the groups write their answer as constructive and the other two groups write commercial as their answer. Munira explains to the class the difference between constructive and commercial:

Munira: *Constructive is for building things. Commercial is when you work in a building and do trading. So banker is commercial not constructive.*

2.00 Munira adds up the marks from each column on the board. Munira ends the lesson that day with the announcement of the winner. The winner is the group that gets the most marks and the class happily applauds the winner.

5.9.3 Post-lesson interviews

Munira was pleased with her lesson. She said that it was a good lesson and it went according to plan. She was happy that the students were responsive in the activity.

***Munira:** Compared to my previous lesson, I find that this is a good lesson. Because it is according to plan. And the students, they got involved in the activity. Good. Very good response. Before this, I really need to settle them down. It takes five to seven minutes to get them settle because they got affected with the national day practice. They are exhausted. So I give them time to settle down first. The first activity that I did with them, I really had to explain over and over again and push them to get involved in the activity but this is the third time I did an activity with them. Luckily, they got the idea of group work. When I tell them to put themselves in group, they immediately group themselves.*

Munira was pleased that she had planned the activity according to the students' ability. She said that she had expected that the students would ask her questions but they did not. However, she commented that her other class was more active compared to this class.

Munira: *It worked out the way I had expected. Especially the activity, but during the explanation, I expect them to ask questions. Compared with the other class, the other class will ask me, what is destructive, constructive, how come they are different. But this class they just take in everything I tell them without questioning. So that's why when I plan a lesson, I have to think about the level of the students. Their motivation and one important aspect is whether they are active or passive. If they are active, I will try to involve them with activity or games. So they could do something here and there. It helps them to remember faster because by involving students, increases the chances that they will remember by 75%.*

Munira said she could see that the girls have understood better than the boys. She said that in the activity, it was the boys who were confused with the answers.

Munira: *I can see that girls understand more than the boys. Because the boys tend to get confused but for the girls, from what I can see from the activity, especially the first group, they got all answers correct. The second group got only one wrong. But for the last group, the third group where all the students were boys, they were easily distracted and their marks were lower compared to the others. So that's how I judge and how I know whether they really understand my explanation.*

However, Munira thought that most of the students have enjoyed her lesson. She said that the students enjoyed interactive activities.

Munira: *Personally I think maybe 60% to 75% of the students have enjoyed, yeah I think, especially the activity. That is why when I came into the class, they said teacher, let's do activity. They enjoy the involvement with their friends rather than sit and listen and taking all the information.*

Although Munira was pleased with her lesson, she said that she would make some changes to the lesson if she had another chance,

Munira: *I was quite pleased with the lesson but there are changes that I want to do. Ok, firstly the pictures I will try to put them in front and give the student, each group the pictures so that they can see better. Well, the group thing, actually my plan is to put boys and girl into one group so they mingle together. I tried to do it the first time but they don't want to mix, the boys and girls. It is difficult to follow what they want.*

Munira said that she wished that she could get her co-operating teacher's feedback on her teaching. She said that her co-operating teacher had observed her teaching but had not given any comments on how she could improve her teaching.

Munira: *It will be helpful if I can hear the feedback from my cooperating teacher. But the problem is it is hard for me to see her. She observed me once a week but she didn't give me the feedback. So that's the problem because I need to hear in which way I can improve, the creativity, the explanation part. I tried to see the last time but she got some task to do. I tried to meet her the next day but*

the class got affected due to the practice and assembly. So the feedback, I still haven't heard until now.

Munira said that she learned from the lesson that day was that her interaction with the students was important. She said that interacting with students could increase their understanding of the lessons.

Munira: *I have to interact with the students. Interaction is really important because some teachers that I encountered and observed, they just do chalk and talk. They like the students to be passive. My experience during my school year, some of the teachers, they just gave you everything about the information. We were not allowed to ask questions because we were considered as a distraction to the class. But now I see that for majority of teachers, they like their students to be involved and interacting so that they would know whether the student has understand or not.*

In response to my question about her experience of teaching, Munira replied that when teaching she would usually link a new topic with the previous topic.

Munira: *When teaching, I usually try to link a new topic with the previous topic, for example, money and barter trade. I asked them questions, let's say in barter trade, I asked them, 'Now we are no longer changing goods, we have money, so this week we are going to learn about money' and then, I focus the sub-topic of money. I have to ask them questions first and if they answer correctly, I will elaborate it. But if they don't then I will give out the answers and explain.*

Munira added that most of the time in her lessons, she would ask the students to give their own examples of the topics:

Munira: *For example, barter trade, there are four problems. Before I explained the disadvantages, I asked the students, “ok in your opinion what are the problems in barter trade?”. They replied, “It is hard to find someone who is willing to exchange the same goods”. So the students were using their own words and ideas and after that, then I would give out the correct words to use for the explanation. So for barter trade, first they will need to know what does barter trade mean. After that, they need to know about the disadvantages. But before I give all the information, I ask them first.*

Munira said that the Internet was not useful in helping her to teach commerce. She said that the Internet was more useful for teaching economics.

Munira: *I try to look up but unfortunately I haven't found a site which is really good as reference. I don't know, even the teacher themselves, they said ok you just have to rely on the brown textbook and find from other sources from other teachers. The Internet, it is not really helpful, but for economics teaching, you have lots and lots of choices.*

Munira said that the methods of teaching courses were very useful in her teaching. She said that the courses made her aware that she was teaching two different classes with different students' ability. She said that she tried to adapt her teaching approaches to suit the different classes.

Munira: *The methods of teaching taught me how to be involved with the students, how to set up an activity which really works for the students. Psychology for teaching and learning is really good because it helps us to understand the students better. We need to understand why the students are not interested in learning so with psychology, we make them interested in learning and motivate them. In MOT 1³⁴, the lecturer concentrates more on how to carry out the activity and how to introduce and carry out the lesson. For MOT 2³⁵, the lecturer gave few groups the same topic to present and see the variation in teaching; the different ways of teaching. So now that I am teaching commerce in two classes, the first class, since they are passive, they only listen to my explanation but in another class, I will make slight changes for the students. In that way I keep the variation between the two classes.*

Munira said that the students have difficulty in understanding the words in the textbook. She also said that the lack of resources in teaching commerce was a problem. She said that she had to rely on one textbook and her sister's notes for teaching commerce.

Munira: *From what I realize, the students have difficulty with the terms even me as a teacher, for example, the term 'a measure of value'. They ask me what 'value' is. Because my cooperating teacher told me once that you cannot just simply give in the Malay words for it. You have to explain it. So explaining 'value' is kind of difficult. The terms, language and materials are problems, the lack of resources as we just rely on the brown textbook. We need to have other sources as well. Luckily for me, I have sources like my sister's notebook. For*

³⁴ MOT 1: Methods of teaching for economics 1

³⁵ MOT 2: Methods of teaching for economics 2

other teachers, it is hard for them to have complete set of notes. We must have other alternatives other than the brown textbook.

5.9.4 Discussion of Munira's representation of 'types of occupation'

Munira said that she was pleased with her lesson. The students were responsive in her lesson and they were able to do the activity. The students discussed in groups about the pictures posted on the board. The students had to choose the types of occupation that correctly depicts each picture. If the group got the answer correctly, the group would get marks. The group with the most marks won the activity.

The whole lesson was about the activity and although Munira said that the students had enjoyed the lesson, their understandings of the types of occupation were not explored. The students in the group were not asked to explain the types of occupation. They were only told to guess the types of occupation. Munira also did not explain the reason for their answers except when one group of boys were confused about a picture of a banker. The group of boys did not know whether a banker came under either constructive or commercial. Munira said that the boys were easily distracted and the girls understood better than the boys. However, later on in the interview, Munira said that the problem with commerce was the 'language' of commerce or the words in the texts. She said that the students had difficulty in understanding many of the words in commerce.

5.10 Case 9: Mona

5.10.1 Pre-lesson interviews

Mona is teaching economics to form four students (15-16 years old). There are three students in her class. All the three students in her class are non-Malay speakers and they are non-Bruneians. The students are sitting near to the teacher's table and Mona can easily communicate with all of them. The topic is about Brunei diversification and to teach this topic, Mona intends to use an article about the Brunei economy. Mona said that her aim for the lesson is for the students to understand and be aware of the situation in Brunei. She said she wants their understanding of diversification.

Mona said that for her teaching resources, she does not get any notes from her co-operating teacher. For the lesson, Mona said that she has used her university notes entitled 'Brunei Development' for the lesson. She said that she plans that the students would read the notes and analyze Brunei's economy from the notes. Mona said that the notes are used to introduce the students to the topic, 'Economic Diversification'. Mona said that her university notes are already simplified for the students to understand.

***Mona:** Later I am going to teach them economic diversification. Actually, I want to find an activity for the students. But I can't get it so I will just have to use my notes from the university because at the university, we did learn Brunei's economy. I just used the materials from our research previously on sustainable development of Brunei and later I will let the students read all those. I have highlighted or underline some important keywords. I would let them analyze the economy of Brunei. And also from the article, I want them to have their own views*

on how to cope with the situation of Brunei. The notes are also to introduce economic diversification. This economic diversification is a new topic and I can't find the content anywhere else in the textbooks here and in the bookshop. So I had to use my notes from the university. I think the notes are already simplified.

Mona said that the activity for the lesson would be for the students to think about the situation in Brunei. She says that she would ask the students to read the notes and she will ask them to think of ways to cope with the Brunei situation before she taught them the topic, 'diversification'.

***Mona:** Firstly, I will give them to read the article. That is one of my activities. Then from there, I want to see the student views on ways on how to cope with the situation. And then, I will start introducing diversification and after that I will distribute the notes and then I will give them exercises.*

5.10.2 Lesson Observation

Date: 15th May 2005

11.25 Mona gives each student an article to read. The article contains data information about Brunei. The article is a copy of Mona's notes from her previous lesson on 'Brunei economy' at the University. She now uses this copy to teach the introduction of Brunei economy. Mona intends the student to answer her questions by referring to the answers in the given notes. Mona gives the instruction to the whole class orally:

Mona: *Imagine an economist from economic department of Brunei. I give you data from Brunei and after you read it, I want you to tell me what are the problems that Brunei faces, what Brunei exports, what Brunei imports and I will ask you to write the answers on the board.*

11.26 Mona shows the student the pages for the problems of Brunei and says to them, “..Scan what are the problems Brunei faces”.

11.27 While the students try to find their answers, Mona then draws three columns on the board and writes the questions that the students need to answer. She writes on the board:

Economy of Brunei
sustainable
export

Import

What are the problems of
Brunei economy?

Prospects *for*
development

11.30 Mona chooses one student and asks him to write the answers for Brunei’s exports and imports. The student comes to the front and writes on the board, ‘oil’ for export and ‘rubber’ for import.

11.34 Mona then asks another student to write other answers for Brunei's exports and imports. However, there was no answer from the student. Mona tells the students to write in their own words and asks two students to come up to the front. The first student writes the answer *'the market price of the oil is unstable in early 2001'* and the second student writes *'food'* as import.

11.40 Mona then asks the students, *"How to maintain the standard of living?"*. There was silence from the students. Mona then picks out one student and tells him to write his answers on the board. Under the heading prospects for sustainable development, the student writes, *'by producing more oil'* and *'finding more resources'*.

11.41 Mona then asks the students, *"Besides oil, what does Brunei have?"*. There was no answer from the students. Mona then writes, *'garment'* under the heading export. She turns to the students and asks them, *"What is garment?"*. There was no reply from the students. Mona continues saying that *"Garment are like clothes"*.

11.46 Mona turns to the board and writes *'oil and gas'* for Brunei exports. She then asks the students, *"Can anyone write down, Is oil renewable or non-renewable resources?"*. Since there is no answer from the students, Mona says to the class, *"oil is non-renewable so oil cannot be produced"*. Mona then shows the students the pages in the notes and tells them to find other resources that can be used for Brunei development. She asks the

students again, “*So what can Brunei government do?*”. There is still silence in the class.

Mona asks the class again,

Mona: *Ok in that paragraph, Brunei doesn't want to rely on oil and gas, they want to rely on other non-oil sectors. Can you give me an example of non-oil sector?*

One student replies, “*forestry*” and “*fishing*”.

Mona writes ‘*forestry, renewable resources, agriculture and fishing*’ under the heading sustainable development.

11.56 Mona introduces the topic for that day which is diversification. She says that diversify its economy means that the country doesn't want to rely too much on oil and gas. She gives the students handouts and asks each of the students to take turns to read a paragraph aloud. The article is about the advantages and disadvantages of diversification.

12.10 Mona recaps the lesson by questioning the students to define diversification and asking them to give the advantages and disadvantages of diversification. Each student answers Mona's questions. The class ended at 12.30.

5.10.2 Post-lesson interviews

Mona said that she was pleased with her lesson. She said that she had wanted the students to be aware of the situation themselves and thought of their own way to resolve the current issues. Mona said that her lesson had worked out the way she had wanted. She said that she liked her students' participation in the lesson:

Mona: *Yes I am pleased. It worked out that way. There is not much variation because there are only three students in my class. So there isn't any variation.*

However, Mona said that if she had the chance to do the lesson again, she would have used the computer lab for her lesson and asked the students to do research online:

Mona: *If there is more time, there is a possibility that I would bring them to ICT lab where they can find or search online. So by using the internet, I think that would be much better. I have brought them to ICT lab in my first lesson and I found that this class, they know how to use the internet. So they like to go to ICT lab.*

Mona reported to me that she could see that the students have understood what she had taught: the students could articulate the advantages and disadvantages. However, Mona said that she was not sure whether the students had enjoyed her lesson.

Mona: *How do I know? From the classwork that they answered. I can see that they understand what I have taught. They can give me the advantages and disadvantages. And that is the aim of my lesson, for them to know the advantages and disadvantages.*

Mona said that from the lesson that day, she had learned to manage time according to plan:

Mona: *I have learned about the allocation of time. I have learned how to allocate, let's say how many minutes for discussion and how many minutes for classwork because last time I didn't. I just put it overall how many minutes.*

Generally, Mona said that she usually introduced a new topic by giving the students activities.

Mona: *Usually I would give them activities. Let's say division of labour, I gave them leaflets and they wrote stories about it. So that was the activity. After that, I introduced the topic. They had to relate what they did with the topic.*

Mona also said that she would usually ask her students to give their own examples and ideas.

Mona: *Let's say for market economies, I asked them to give me examples because I have given them the characteristics. I asked them, "Is it good this way? Is it good that a country adopts market economy?" And I asked them to reason out.*

Mona said the knowledge that she learned at the university was helpful and useful for her teaching. Mona said that she could apply the teaching approaches in the classroom, but she said that activities for students were time-consuming. Furthermore, she said that teaching materials needed funding. Hence, Mona stated that her teaching materials came from the Internet and books. She said that she had to find the teaching materials herself as she did not share them with her friends:

Mona: *Yeah. At FBEP, we learned economics and at SHBIE we learned how to manage students' behaviour. MOT is about the method of teaching like the reasons why we often give activities for learning and we learn that children love activities. They were helpful. We can apply but it is just that if we were to use*

activities in the classroom, it is time consuming. What is more, we need more budget for materials. So I get them from the internet. I get them from books. I don't share with my friends.

Mona ended the interview by saying that she had not encountered any problems in teaching economics. English was not a problem for her as the students were non-Malay speakers. Hence, Mona only used English when teaching them.

5.10.4 Discussion of Mona's representation of 'economic diversification'

Mona said that she was pleased with her lesson. She said that the students were able to analyse the situation in Brunei. However, in observing her lesson, I noticed that the students were silent most of the times whereas Mona explained and questioned the students. The students were asked to write the answers on the board without really having the chance to read the handouts. However, since the handouts were from Mona's university lectures, Mona had to point out the answers to the students. In my observation, Mona did not give enough time for the students to read and understand the texts. Mona expected the non-Bruneian students to know the answers about the Brunei economy. However, in the post-lesson interview, Mona was confident that her lesson went well. Mona was confident that she did not have any problems in teaching economics because she did not have any problem with using English language as all her pupils were non-Malay speakers.

5.11 Case 10: Sabrina

5.11.1 Pre-lesson interview

The secondary school is located about one hour drive from Bandar Seri Begawan. It is a government co-educational school that offers form one to form five levels to the students. The range of students in the school is between 12 and 17 years old. Sabrina is 24 years old and she is a pre-service teacher in economics. She is given a form 4 class (15-16 year olds) and she has to teach commercial studies. In the classroom, there are twenty-five students and they are seated in rows where the girls sit in the front rows and the boys sit in the back rows.

Sabrina's lesson was for 30 minutes: it started at 10.20 am and ended at 10.50 am. The theme of the lesson was 'multiple shops' and Sabrina's objectives for the lesson as she stated in her lesson plan were for the students to be able to 'classify that multiple shop is a type of large-scale retailing, recognize the main features of multiple shop, identify the organization of multiple shop and state the advantages and disadvantages of multiple shop'.

Sabrina: For today's lesson, I hope they know the examples of chain stores in Brunei like 'Ayamku'. I am not sure about Akira. I wonder about Akira because the definition for chain store is that it must be a similar branch in the whole throughout the country. What about Akira? Are they international or global?

Sabrina said that she had to simplify the textbook for students' handouts. She said that sometimes she just changed the words because the words were difficult for the students to

understand. She said that the students did not have the textbooks so she said that she had to prepare the notes for the students for every lesson.

Sabrina: I just use the textbook. This is a new topic and my cooperating teacher doesn't have any resources. This is a new subject offered to the students. We don't have any resources in the school. I have to buy this textbook because the school has no more stock. If I didn't have this book, I don't know how to teach. I don't even share with others in other schools. So I have to find my own resources.

5.11.2 Lesson Observation

Date: 28th February 2005

10.20 Sabrina tells the class to refer to their handouts as she wants to question them about chain stores.

Sabrina: *Ok everyone, what is an example of a chain store?*

Aminah: *Akira*

Bahar: *Hua Ho*

Rahim: *Sony*

Mira: *what is a chain store?*

Sabrina: *So many singular branch shops situated all over the country. Any more?*

Ok, Akira, it's not all over the country. Hua Ho³⁶, what do you see there?

Rahim: *department store!*

Sabrina: *Right department store. What about Hong Textile, Ayamku, and Nazmi?*

³⁶ Hua Ho: Department store

10.27 Sabrina writes on the board: 'Hong Textile'³⁷, 'Ayamku'³⁸ and 'Nazmi'³⁹. Sabrina then asks the class whether they notice these shops in Brunei. The class say "yes", and Sabrina then tells them that they are chain stores.

Sabrina: *So can you see all in the country?*

Class: *Yes*

Sabrina: *So they are all chain store, ok all?*

Class: *yes*

Sabrina: *ok, write there in your handout, examples, Ayamku, Hong Textile and Nazmi. Features. What can you see in all these stores?*

Aminah: *the same.*

Sabrina: *What is the same? The price? The food?*

10.29 Sabrina writes on the board the words, 'features; price'. She then asks students questions relating to a food chain store called Ayamku.

Sabrina: *What type of service like ayamku?*

Rahim: *self-service*

Sabrina: *What about designs? Like ayamku?*

Mira: *Yes, the same*

Sabrina: *You can see from far away the brand, the colour.*

Sabrina writes on the board: 'chain store, singular branch shop. Control headquarters. Standard price. Efficient controlled and standard method'.

³⁷ Hong Textile: A textile shop

³⁸ Ayamku: Local fast food restaurant

³⁹ Nazmi: A textile shop

10.33 Sabrina explains the chain-store's feature price to the students.

Sabrina: *So what about the price? The price is competitive. So like Ayamku and ayam usually the same price. Like WYWY⁴⁰ and mobility, so and so the price. You ok?*

Class: *Yes*

Sabrina: *Who helps you? Usually you will be helped by shop assistants.*

10.36 Sabrina continues and reads the handouts aloud to the students. At one point Sabrina asks about the fast food in Brunei but was not sure whether they are chain stores or not.

Sabrina: *What about other fast food?*

Class: *KFC, Mc Donalds*

Sabrina: *But are they the only in Brunei?*

Class: *No*

Sabrina: *So I'm not quite sure whether they are chain store.*

Aminah: *Tasconi*

Sabrina: *Yes good*

Sabrina continues explaining the content in the handout and her lesson ends at 10.50 am.

⁴⁰ WYWY: Handphones and games shop

5.11.3 Post-lesson interviews

Sabrina was not pleased with her lesson. She said that she did not expect that the students would be 'noisy'. However, she said that the students were responsive in the lesson compared to the previous lessons.

Sabrina: It is a bit different from last time. Last time I was the one who was talking and today somehow they give me feedback. So they are a bit noisy already. I said "hey..hey..quiet...quiet". I don't know how to control them. But compared to last time, it seems quite ok. At least they gave me some feedback. Last time, they were just quiet most of the time. Today, there was a lot of noise, so it was not expected.

Sabrina reported to me that if she was doing the lesson again, she would like to use power-point in the lesson.

Sabrina: Actually I plan this lesson according to the notes. So that is the way I teach, according to the notes. Actually I would like to use power point. Like last lesson, I use power point, I bring them to ICT. It is quite effective and I have a few pictures to show them. Pictures did help.

Sabrina said that she had difficulty in finding words to explain her thoughts. She said that her students thought about things more clearly than she did. She said that she was surprised that the students had thought of more examples than she had.

Sabrina: *I got something to say but I don't know how to put in words. Sometimes the students can think much better than me. I can only think of Ayamku and then surprisingly they give me more examples.*

When I asked whether the students have understood her lesson, Sabrina said that she thought they did but she was not sure whether they had enjoyed the lesson. She said that the students might not have enjoyed it because she had only used a teacher-centred approach.

Sabrina: *Yeah, I guess so. I walk around and ask are you still with me. Sometimes I can see they are confused when I ask do you understand? So the way to know is by asking them questions. I guess maybe they are not enjoying the lesson because not all were responsive. Some just kept quiet. Maybe they don't like the way I teach or whatever. It is kind of boring. Just talking and fill in the blanks. Maybe they are thinking, 'what is this teacher trying to do?'*

Sabrina said that her main problem in teaching was not being able to think of an activity for her teaching and for that reason she said that she only used 'explanation' for teaching:

Sabrina: *My problem is I cannot think of an activity. I don't know what kind of activity to give to students. I can do talking for the whole lesson, I am the one who do the talking and writing on the board. I can't think of an activity even when I use pair activities. And then they cannot cooperate. When they sit together, they talk and talk. When I go and ask what they are doing, they will say 'I'm thinking'. So when I go away, they talk and talk. I don't know how to control them. It is very*

hard and because there are only few boys, so boys don't mingle with the girls. So they just sit there. So when I say, 'everybody form a group'. Then they form their own groups. All boys form in one group. Very hard. I don't know how to make them form into groups. And then I cannot scold them. They are teenagers, so they know what to do.

5.11.4 Discussion of Sabrina's representation of 'multiple shops'

Sabrina reported to me that she was not pleased with her lesson because she said that the students were noisy and couldn't be controlled. However, she told me that they were responsive in this lesson compared to the previous lessons. In my observation of her lesson, the students were actively answering Sabrina's questions when she asked them for examples. The students were responsive because they were able to give the examples of the shops.

Sabrina said that she was not sure about the examples of 'multiple shops'. She was surprised that the students were able to give her many examples, more than she had. She also said in the interview that she had difficulty in finding activities for the students and therefore, she said she chose a teacher-centred method where she only explained the content to the students. Sabrina was not confident in her knowledge of the topics and she was not confident in her representation of the topics to the students.

She reported to me that the economics knowledge that she learned at the university was not related to her teaching. She said that the methods of teaching courses were helpful to

her. However, she told me that she was struggling with the content and that she had to use her old secondary school notes. She also reported to me that she preferred 'explanation' to students because it was difficult for her to think of learning activities for the students.

5.12 Discussion

The findings in this chapter gave an insight into the way the pre-service teachers transformed their knowledge in practice: they were encouraged to articulate their ways of representing the subject knowledge for their pupils' understanding and they were observed when they were representing the subject knowledge in the classroom. For analysis, I have integrated the categories discovered in this chapter with the previous chapter (chapter 4).

University economics as 'high' knowledge and school economics and commerce as 'low' knowledge

I discovered that most of the pre-service teachers struggle to understand the content for teaching. They reported to me that they were not familiar with the school curriculum. The pre-service teachers articulated to me that they had to learn the content for teaching. I found that their conceptions discussed in chapter 4, that school commerce was common-sense and easy to understand but that school economics was difficult for pupils were not matched in practice. My research demonstrates that the pre-service teachers found school subjects difficult to understand. Although, the pre-service teachers made an effort to

understand the content so that they can represent the content to their pupils, I observed that they were not able to relate and link one economics theory with another.

The pre-service teachers' conceptions of university economics as high knowledge and school subjects as low knowledge (see chapter 4) did not change when they transformed their subject knowledge for teaching. The pre-service teachers' conception was that university economics was not that relevant in teaching school subjects, that is, economics and commerce. However, I observed that the pre-service teachers found difficulties in relating university economics with the school subjects.

Teaching approaches

The pre-service teachers reported to me that their goal in teaching was to make their pupils understand the lesson content. I found that the pre-service teachers' conception of helping pupils' learning and understanding was to simplify the textbooks. Their conception was that the school textbooks were difficult for their pupils to understand. On the other hand, I discovered that the pre-service teachers rely on old school notes as their teaching materials and I found that they regurgitate these old notes to their pupils. They found these old school notes to be a convincing source of knowledge for teaching. The pre-service teachers' conceptions were that the old notes were already simplified for students to understand and therefore these notes were used to replace the textbooks as teaching materials. Thus, I observed that the pre-service teachers seldom related the teaching content with examples from the real world to help their pupils understand and learn.

The pre-service teachers had reported to me that they did not like their previous teachers who had used the teacher-centered approach (see chapter 4). However, I found that the pre-service teachers regurgitate the teaching content to the pupils. They reported to me that they did not know how to teach the content. They were not keen on using the teaching approaches recommended by the university. Their conceptions of the teaching approaches recommended by the university were that the approaches were not suitable for classroom teaching. Although the pre-service teachers reported to me that they wanted to use different teaching strategies to make teaching and learning interesting for the pupils, they had difficulty in applying the teaching approaches recommended by the university to their teaching.

I found that the pre-service teachers' approach to teaching school subjects was to rely on their memories as students. The pre-service teachers' conception was that their experience of learning economics O-level or commerce had helped them in understanding the teaching content. On the other hand, the pre-service teachers who had not taken economics O-level or commerce reported to me that they struggled to understand the content for teaching because they had not studied any economics or commerce at O-level.

A further discussion of the pre-service teachers' transformation of their subject knowledge will be analysed in chapter 7. In chapter 7, I will synthesise the discussions of chapters 4, 5 and 6.

Chapter 6

Knowledge of Practice

6.1 Introduction

The pre-service teachers' experiences of learning to teach economics and commerce during teaching practice are explored in this chapter. The pre-service teachers were asked to recall the topics that they had taught during their teaching practice. Different pre-service teachers have different conceptions of the topics taught. During the interview, it was up to the pre-service teachers to discuss the topics that they wanted to discuss. They articulated the way in which they had represented the topics they had taught.

In this chapter, the data is again analysed using grounded theory (Glaser & Strauss, 1969). Each pre-service teacher's conceptions of learning to teach during their teaching practice are described. I asked about the pre-service teachers' knowledge of practice, that is, their conceptions associated with the third operational research question, 'What are the conceptions of pre-service teachers in using their specialist subject knowledge when teaching economics and commerce?'. I asked the pre-service teachers about their roles as pre-service economics teachers, 'What is assumed about their roles in educational change, with regards to teaching school economics and commerce? In other words, I explored their conceptions of what they learned at the university and how they have applied their knowledge in teaching the school subject in the classroom. I also asked the pre-service teachers to articulate to me about the role of the contexts, such as teaching

resources, supervisors, co-operating teachers and schools that support their learning to teach subject knowledge in the classroom.

6.2 Case 1: Salmah

6.2.1 Salmah's experiences of learning to teach commerce during teaching practice.

Salmah reported to me that she did not like to teach the subject commerce because it involves accounting. She said that she found difficulty in finding resources and students' activities for teaching commerce, in contrast to economics. She stated that for economics, her favourite topic to teach was 'Factors of Production'. She said that she had given an activity to the students where she had asked them to list factors that they need to have in order to create something. She had grouped them into four where each group had five students. For the activity, Salmah had given each group a 'production' to discuss. Examples of the production that Salmah had given the students to think about were 'table' and 'hairdresser'. She said that she did not have to talk a lot as the students were the ones who had to think and discuss among themselves in their own group. Salmah stated that teaching 'factors of production' was her best lesson and she was pleased that her students were able to think for themselves.

Salmah told me that her least favourite economics topic was the market system. She argued that the market system was difficult as it does not exist nowadays. However, later on in the interview, Salmah stated that she did not know the economic system. She had to ask for help from her co-operating teacher for the content and her co-operating teacher

had to loan Salmah her teaching notes. Salmah admitted that she was not confident with the content and hence that is why this topic was her least favourite to teach.

Salmah: *For factors of production, I gave them an activity. I asked them to list factors that they needed to have in order to create something for example to make a table, what should they have? And then automatically they know that they need labour, they need building, and then suddenly they revealed all the things without me explaining. So I really like that kind of topic, students' self-discovery. Least favourite topic is on economic system like planned economy, mixed economy. It was difficult to teach them because they don't happened in the real world, and somehow it is more like memorizing the characteristics of planned, market and mixed economic systems.*

Besides using her cooperating teacher's notes, Salmah said that she found the textbooks to be useful for her teaching content and she stated that she only used the Internet for 'extra' knowledge. Salmah stated that she would give examples and show pictures when teaching her students.

Salmah: *The most helpful is the textbook, then there is the Internet. I like the Hashim Ali book. The Internet was for extra knowledge and as a resource as well. I give them an example of an entrepreneur in Brunei like 'Qawi'. In commerce, maybe few examples, like dishonoured cheque, I showed them the cheque itself. In economics, I show them pictures of factors of production. I bring lots of pictures for them to see. And I relate to the students' experiences.*

Salmah articulated that only some of the economics that she learned at the university were related to the economics taught in schools. She acknowledged that her experience in teaching tuition classes had helped her to become familiar with the secondary school economics.

Salmah: *Honestly, some related. But at UBD⁴¹, the knowledge is too high like labour economics. And then when I go to the school, I find that its low knowledge. I find it easy to understand. I have to recall. But I have to read again. I am familiar with economics content because I teach tuition classes during my third year. So it was ok. Luckily commerce is easy to understand and it is practical and commonsense. UBD economics is helpful because we are doing degrees but for teaching, I have to forget about it and concentrate on the basic economics.*

Salmah said that her friends, cooperating teacher, supervisor and lecturers had played roles in helping her learn to teach. In addition, she said that her supervisors only commented on her way of teaching and not really about the content.

Salmah: *My friends have helped. My cooperating teacher has helped as well but not all the time. My supervisors were quite helpful with the comments. I also get help with other teachers in the school. My lecturer was also helpful. I asked my lecturer about the strategies to teach. I asked about factors of production. Those were his ideas. But some of his ideas were also not applicable like market economy, try to give country, the name of country to them, and let them differentiate the different situation of the countries. Such as try to think Cuba, they don't even know about Cuba. So some of his ideas are not applicable to*

⁴¹ UBD: University Brunei Darussalam

Brunei students, because Brunei students are not that bright unlike other countries and they are shy, so that's the problem. I asked him before I start teaching practice and during teaching practice. My supervisors only comment on the way of teaching not really the content.

However, overall, Salmah said that from her teaching practice, she had learned that she had to change her attitude. She said that she needed to be independent. Salmah described that among all her university courses, the pedagogy courses had helped her in teaching. However, she also commented that some of the strategies that they learned at the university were not applicable in schools.

Salmah: *...the courses 'Introduction to education and teaching' helps to be an effective teacher and psychology helps me to learn how to treat students. I like sociology of school, it tells us different students, different cultures, and different schools. Methods of teaching economics, only 40 percent is useful. The lecturer is good. But the strategies that he wants us to do are not applicable. My friends say just forget it because not applicable, what can we do. So we just do our own way. I don't know whether it is good or not, I don't know. For example, during our peer presentations, we have to teach our peers. Everything we did, he didn't like, even though they are good already, like self discovery. Like elasticity of demand, it's difficult to teach right? What he wants us to do was to make the students understand how they respond to each increase to price but its difficult, even explaining the meaning of elasticity of demand, the students will yawn, so how am I going to let them explain by themselves? So that's difficult. And also, we don't*

know what he really wants. We thought like he likes activity, and then when we do the activity, he would say what is your objective, what can you see from that. I know he is good but very demanding.

However, Salmah admitted that she was not fully knowledgeable about economics. She said that at the university, they were taught ‘high’ economics not the ‘low’ economics.

Salmah: *I tried to change my attitude. I learned from teachers themselves and I had to be self dependent. In terms of economics teacher, I’m not fully knowledgeable. I think I know but actually I don’t know, something like that. I think my knowledge is enough but actually it is not. For example, for factors of production, like land is for building, and when they asked questions, I get stuck because at UBD we are taught the higher level of knowledge not this one.*

Therefore, Salmah recommended that in the future, the course for teaching economics and commerce should provide the pre-service teachers with the syllabus on economics. She said that for the methods of teaching, the pre-service teachers should do presentations on the basis of the syllabus and the topics. She said that if the syllabus is provided to them during their course, they will learn to prepare and teach the topic. They will ask their lecturer before teaching practice about how to teach the topic.

Salmah said that learning economics, “... is to find a job with the qualification, helpful in a way to set up a business. Also with economics, we know other countries. It’s really

interesting. With economics, the conversation becomes interesting, so I feel good about economics”.

In summary, Salmah was struggling to teach market systems because she was not confident about the content itself. She was actually struggling with school economics content. Her conception was that school economics was ‘low knowledge’ and university economics was ‘high knowledge’. Her lack of understanding in economics as subject knowledge had affected her teaching. Her conceptions of the methods courses were not positive either. She believed that many strategies recommended by the university were not applicable in schools.

6.3 Case 2: Nadia

6.3.1 Nadia’s experiences of learning to teach commerce during teaching practice.

Unlike Salmah (case 1), Nadia told me that her favourite economics topic was the economic system. She said that it was easy to teach the definition, advantages, and disadvantages and the students found it easy to understand the topic. Her least favourite topic to teach was the division of labour. Nadia said that the students found the topic to be complicated. She had used activities and she found that the students could not link the activities with the topic. She said that the students had difficulty in understanding the differences between specialisation and division of labour. However, later on in the interview, Nadia said that her best lesson was the debate about the ‘division of labour’. She had given the students two days to prepare for the debate where she had randomly

selected three persons as speakers. She said that the students were really interested in the debate.

Nadia: *Firstly, my favourite topic is the economic system that includes planned, market, and mixed economy. It is easy to teach. The definition, advantages, and disadvantages are easy for students to understand. The least favourite topic is the division of labour. They find it complicated. I have explained to them using activities but they cannot link the activities with the topic. They are confused. They cannot get the objective of the activities. I did two activities. First activity, they made a container using papers. I divided themselves into four groups. In the first group, there were two persons. The other group, there were four persons and then other groups, more persons. But I have asked the group with the most students to specialise each task. The activities work and the objective of the activities was achieved, but the students didn't understand what the activity was all about. They cannot link with the theory. With market systems, I used case studies. I used articles from the textbooks. I asked some questions and they discussed. They have to find the advantages and disadvantages from the article. I gave examples like Brunei and other countries as well. To make them more understand, I gave them resources about the market system from the Internet. The students have to discuss the case studies in groups and then one of them has to come up to the board to present. For planned economy, I used China as an example. I have used case studies for three major topics only, market system, business organisation and sole trade. The students were excited because of the discussion.*

Nadia told me that she found that the economics that she learned at the university were not specific for teaching school economics. Nadia said that she had to read most of the economics contents again for teaching. She said that she did not have 'any' basics in economics. What she meant was that she did not take any economics when she was in form five (16-17 years old) and form six (17-19 years old). She had only learned economics at the university. Therefore, to teach school economics, she had to borrow notes from her sister who had taken economics during 'O'level. She said that she would also use the textbooks and the Internet where she would use the search engine to find useful materials for teaching. Nadia also added that she would sometimes use her cousin's business company as an example in her teaching. Nadia added that her cooperating teacher was not that helpful and she had to find the teaching materials by herself.

Nadia said that she sometimes asked the students to give their own examples to show their understanding, such as she had asked the students to discuss how to handle a planned economy and she had asked the students for examples of mixed economy and the students had answered her, JTB⁴². However, Nadia stated that she did not ask the students to write any essays because she said that the students' problem was their English.

Nadia described that since the beginning of her teaching practice, teaching was already challenging for her. She said that she had to prepare and find the resources in advance of teaching the topic. Nadia stated that if she did not understand the teaching content, her friends would sometimes explain it to her but most of the time, she had to learn the

⁴² JTB: Communication Department in Brunei

content by herself. She said that her supervisor only helped her by giving tips on how to get the students' attention. She added that other teachers also gave her tips on teaching. However, Nadia said that of the courses from the university, the methods of teaching for economics was most useful in helping her to teach. She said that her experiences in peer teaching during her methods of teaching classes were helpful for her. Yet, Nadia argued that the methods of teaching courses were not enough. She stated that the peer teaching presentations were not sufficient for them. In addition, she said that they should teach specific topics that relate to school economics during the teaching methods courses.

Nadia said that learning economics means that *"We learn about everything, the environment. Mostly, it's about business and the surroundings, how the economy works, how the organisation functions"*.

In summary, Nadia reported to me that she had used different learning activities for the students such as case studies and debates. In other words, Nadia had made an effort in transforming the content knowledge for students' learning by asking them to discuss their ideas in the class. However, Nadia also told me that she believed that she had insufficient content knowledge to teach school economics well. She said that she had to learn the content; Nadia appeared to be teaching school economics with partial content knowledge.

6.4 Case 3: Noraini

6.4.1 Noraini's experiences of learning to teach commerce during teaching practice.

Noraini articulated to me that she liked the topic 'barter trade':

Noraini: My favourite topic was on barter trade. It was a totally new concept for the students. I introduced practical methods first before I start teaching theoretical explanation. If I explained it, they will not understand as today there is no such thing as barter trade in Brunei.

Noraini stated that the peer teaching that they did in the methods classes was helpful for her teaching but she argued that the content presentations that she did at the university were different from teaching:

Noraini: In methods of teaching, we had to do presentations where we imagined that our peers were our students. We had to prepare teaching aids and everything. At FBEP⁴³, the presentations were more like for gaining knowledge not practicing what we are supposed to be doing.

When I asked about her resources for teaching, Noraini said that she had used magazines, newspapers and textbooks in her teaching. She added that she would extract examples from newspapers and magazines to show the students that economics examples could be found in real life. Furthermore, her friends and cooperating teacher had also helped her out:

Noraini: We have magazines and I have my books at home, like economics books that we used at the university. And I have my friends to help me out to give

⁴³ FBEP: Faculty of Business, Economics and Public Policy

examples and my cooperating teacher was helpful in giving me few resources. The books besides the brown book (school text book), I used the blue book (school text book) and newspapers as well, for example, 'Newsweek', 'New Strait Times', and 'Borneo Bulletin'.

Noraini told me that she was familiar with all the topics. She stated that her best lesson was the topic 'occupation'. She said that for this topic, she had given the students a project during their school break. She was pleased that the students were able to give a presentation of their project to the class.

Noraini: *I have this project during their school break. I gave them quite a tough work to help them built their cognitive skills. I break them into groups and I gave them one month prior to the deadline. So two weeks to be done in school before and then two weeks during the school holiday, and once the school opens, they present their project. It was fantastic their project. I gave them, the topic was occupation. What they have to do is to go out their area, the neighbours, uncles, aunt, find out their job was and break out into categories. There were 20 categories. They did the presentation one by one. It was good for me to train them to speak. They used photos of the different jobs of their uncles, neighbours.*

When I asked about whether she would relate to her students' experience in teaching, Noraini replied that it was easy for the students to understand if she asked them to give examples. Such as, in the topic 'the characteristic of money', Noraini said that she had asked the students this question, "*When you look at money, what do you see? In your own*

words..”. In another topic ‘import and export’, Noraini said since she knew that her students were familiar that Brunei exports oil and imports goods, she then had asked the students this question, “*Where do you think they come from?*”.

When I asked Noraini about her views as a pre-service teacher learning to teach economics or commerce in schools, Noraini replied that the economics that she learned at the university were ‘deep’, therefore she had to be selective when teaching the content to the students. However, she said that her university knowledge was useful when her students asked her difficult questions:

Noraini: *In school, I was given form one. So what I am teaching is just ‘surface’. The things that we learnt at economics faculty are in-depth. So any questions from the students, like in-depth questions, I know how to answer, so it is an advantage. We have to know more than the students, so that has helped me. So mmm.. I just have to review the topics and sometimes I might drift to really deep, so that was the danger. Because we know a lot but we only have to tell a little bit, so that was the danger. I was familiar with all the topics as well since I’ve taken commerce before during my secondary years.*

Noraini added that learning to be a teacher means a lot of work. She was thankful for her peers as they helped her out. She seldom saw her cooperating teacher. Noraini said to me that her experience as a pupil learning commerce when she was in secondary school had helped her teaching:

Noraini: *Learning to be a teacher means lots of responsibilities. I need to be patience quite a lot and a lot of hard work. Being a teacher is a 24 hour job. I was given several classes, so sometimes my lessons with different classes did not match because of the events like holidays, so sometimes my lesson overlaps the other lesson, sometimes I have to go fast, sometimes I have to go slow. The responsibility meaning I have to change my lesson plans so that I have to keep pace, so that one class would not be left behind. So my responsibility is to make sure that they are balanced together. My peers were helpful. My cooperating teacher had to teach in the morning and in the afternoon. So when I took over her classes in the afternoon, I seldom saw her. But I have my peers to help me and my background actually helped me. My experience in learning economics and my experience during schools had helped me out.*

When I probed the role of the schools and the community in her teaching, Noraini replied that her experience of meeting the students' parents during 'Parents' Day' was new for her. She stated that during the meeting, the students' parents said that they had expected that their children would be knowledgeable about business when they learned commerce. Noraini said that she had to explain to the parents that in commerce, the students were only learning the 'basics' of business.

Noraini: *There were several events, like sports, and parents meeting. That was a new experience because we had to meet the parents. From there, the community expects us to be very good for the students. I was teaching form one and for them, commerce is new. Parents expect their children to know what is going on in the*

business world. They thought that when their kids take commerce that their kids would know business immediately, but I said no. They have to learn the basics first.

When I asked Noraini about the relevance of her courses at the university, she said that the peer teaching experience in her education course was more helpful than her FBEP⁴⁴ courses. Noraini said that there was a difference between doing presentations at FBEP and education courses. At FBEP, she only had to present the content but for her Methods courses, she had to teach the content to her peers during peer teaching.

Noraini: *The courses at education were very helpful because we had to do presentations on imagining that they were my students and preparing teaching aids and everything. But at FBEP, the presentation was more like treating my colleagues as adults who know everything. At FBEP, we just give information, talk..talk.. as if we are giving lectures. But at SHBIE⁴⁵, we have to try to imagine that they were my students, but at FBEP, it is more like gaining knowledge, not practicing what we are supposed to be doing. Our lecturer in methods of teaching was strict with us. We didn't know how to present to imaginary students because we are so used to presenting to adults. Since he was strict, it actually helps us to become better. Prepare more realistic. We are so used to using OHP with words only. But then he grades us down and he explains to us why, and slowly we try to develop and a lot of us used material things. Things that we can touch, then we can relate in schools.*

⁴⁴ FBEP: Faculty of business, economics and public policy

⁴⁵ SHBIE: Institute of Education

Noraini argued that the topics that they had to teach during peer teaching were really difficult. Yet, she stated that it was better for them to experience teaching difficult topics as it would make teaching school subjects easy.

Noraini: *When I learn economics at university, it is very different from teaching it. At university, they prepare us, for example, in our methods of teaching economics, the topics we were given to present were combinations of four topics, four different chapters. So we had to compress and think about what we are going to do and deal about it. The topics were really hard. Because it was so difficult, once we go into teaching, it was easy. So it was good that we had the difficult task first before we do the easy ones because if we start with the easy ones, we might find difficulty in the end.*

Noraini also added that her previous work experience at a bank had helped her to become more familiar with several of the topics when teaching commerce.

Noraini: *I had worked for a bank before. So I'm more familiar with several chapters because I've practiced it and I know what was going on. I worked at standard chartered after A-level before university. At school, it was just theoretical, and when you actually do it, then you understand. I think my experience help me quite a bit.*

Noraini gave her thoughts on commerce teaching:

Noraini: *When I teach commerce, I want them to feel how business is going on, not just read from a book because they might not understand. Some of the topics*

are difficult but once you get the students to do it and think about it, it is not that hard.

Noraini said that *“Economics needed to be experienced. Like in business world, between, two persons, if one person has a business background with A-level and university qualifications compared with a person who does not have a business background, the person who does business in real, will be better off than the person with theory only”*.

In summary, unlike Salmah and Nadia, Noraini⁴⁶ was confident with her content knowledge. She told me that she was familiar with all the topics and she assured me that her experience as a pupil during her secondary school years had helped her in teaching the content to the students. Like Salmah and Nadia, she also said that the university economics was ‘high’ knowledge. However, Noraini told me that her ‘high’ knowledge had helped her answered her students’ questions. Noraini articulated to me that she had made teaching commerce easy by relating her students’ experiences to the subject. Thus, in the interview, Noraini had an aura of confidence about the subject content as well as her pedagogical knowledge.

6.5 Case 4: Lisa

6.5.1 Lisa’s experiences of learning to teach economics during teaching practice.

Lisa reported to me that she had liked teaching division of labour. The reason was that she was familiar with the content of division of labour, business organisation, sole trader

⁴⁶ In the previous chapter, Noraini was observed as not having sufficient knowledge of the theory ‘barter trade’. Noraini was regurgitating the content from the textbook and she could not relate the theory of barter trade with other theories, such as the theory of ‘money’.

and partnership. She stated that she had used a teacher-centred approach to teach these subjects to the students with the exception of one topic, 'limited company' where she said she had asked her students' opinions:

Lisa: *I teach them using direct teaching. Except limited company, I use manila card, and I try to extract from students, what are their opinions of a limited company? When they listed them out, I wrote their answers on the manila card and then at the end, I gave them the notes.*

Lisa said that teaching 'limited company' was her best lesson:

Lisa: *The best lesson was the limited company because I did research. I got pictures like cartoon pictures. I extracted information from students and showed the pictures to the students.*

However, Lisa said that she did not like teaching topics linked with calculations such as 'fixed-cost'. Her reason, she said, was that she disliked the subject mathematics. She associated 'fixed-cost' with the subject mathematics.

Lisa said that she was familiar with all the topics. She said that she did not like cost of production because of the formulas. So she said that she had to use her old secondary economics notes to understand the content before teaching:

Lisa: *I studied already all the topics because I took economics before. I don't like cost of production because I forgot the formula. But I still have my old notes from my previous secondary school. And if I don't understand my old notes, I just use*

my brother's notes. Sometimes I used dictionary economics. I have to understand before I teach.

However, Lisa said that she preferred using the textbook as her teaching resource, "*I prefer textbook. Mostly it's the old textbook*".

Lisa said that she preferred teaching using a teacher-centred approach rather than student-centred. She said that it was difficult to get pupils to participate in student-centred activities:

Lisa: *When I was a student at my secondary school, I was exposed to direct teaching. They just gave notes and talk, talk, talk. Since I was small, I am exposed to this kind of thing. To me, this kind of teaching is ok for me. But when I go to the university, my lecturer was western, so he wants us to expose to that kind of teaching that wants students to participate and give opinions. To me, this kind of method does not suit me. I think it is a good way because it has lots of advantages to use other teaching methods other than direct teaching, for example like simulated teaching, it helps students to remember. But I prefer direct teaching because I'm exposed to this kind of thing so when I try to teach simulated teaching, it doesn't seem to suit me. So I think if you want to encourage students to use this kind of method, it's better to start from small because the students are quiet and shy so if you start to introduce all these kinds of methods, they don't like, not that they don't like but they don't want to participate.*

Lisa stated that economics that she learned from the university was useful for her as she could apply her knowledge when teaching school economics.

Lisa: *At FBEP, the economics there is more advanced compared to economics I teach in school, it is simpler. But it is good at least I have a much wider knowledge, more deeper of that topic. So when I teach in school, I'm able to teach the simple one. So it's easier to apply.*

Lisa said that being a teacher was not easy. She thought that being a teacher was only to prepare notes and talk but she learnt at the university that as a teacher of economics, she needed to use different teaching approaches to suit the different topic contents. She acknowledged that using only a teacher-centred approach was not ideal for students' learning. However, she then contradicted her statement by saying that she was comfortable with using only a teacher-centred approach in teaching:

Lisa: *To me, being a teacher, is not easy. I thought that becoming a teacher was easy, I thought I just prepared notes and talk. But at the university, I learnt many different kinds of teaching methods such as I learned not to always use direct teaching method. Not an easy job because I always use the direct teaching method. So when I did MOT⁴⁷ economics, I have to adapt myself using the different kinds of method. I don't like the MOT economics. Lots of the methods are the same. But it is up to me to use this kind of method. But I know it's not good for the students to rely on direct teaching. Direct method does not lead to long term memory. So to be an economics teacher, I should try to adapt in using different teaching methods that fits that topic. For example, the division of labour,*

⁴⁷ MOT: Methods of Teaching

I can do activities like ask questions, form a group, then after that, encourage them what they have experienced, at least, they have real life experience so that they can remember.

Lisa said that the school environment was not that conducive during her teaching practice and she said that the students were difficult to control:

Lisa: *The school was too hot. They don't allow us to photocopy. The teachers there were not that helpful, like I wanted to borrow notes but they were not helpful, they just said, 'you make your own notes'. So I shared with my friend, we make our own notes. But from teaching practice, I learnt not so easy to teach students. The students are like naughty students, different from teaching our peers at the university. It is not easy to control the class. So that's why I usually apply direct teaching. And then sometimes, they don't understand English. So I have to teach in Malay.*

Although Lisa preferred a teacher-centred approach, she said that the methods of teaching for economics taught her to apply other teaching approaches and also psychology for teaching and learning. She was impressed with that she had learned the different teaching approaches in the course.

Lisa: *About the course, it teaches me to apply other teaching methods. It helps me to choose a variety of teaching methods like simulated teaching. I think psychology is quite good. It teaches us things like the way to control students, the way you talk to students can motivate actually motivate them. Basically, the*

methods cover everything, such as setting MCQ, assess students' learning. I think basically, the course is quite good.

Lisa ends the interview by saying, *“When learning economics, we have to be aware of changes in this world and we as teachers need to adapt with the changes”*.

In summary, Lisa said to me that she was familiar with all the topics as she had experience of learning economics. Yet, Lisa found mathematical content in economics to be difficult and she did not like teaching topics that involved with formulas. Lisa admitted to me that she preferred the teacher-centred method where she regurgitated the content to the students. She told me that she did not want the students to misbehave, so she preferred the ‘old’ method and she was not keen on changes. Thus, Lisa was not confident in her content knowledge as well as her pedagogical knowledge. She was not confident in representing the content knowledge to her students.

6.6 Case 5: Ahmad

6.6.1 Ahmad’s experiences of learning to teach commerce during teaching practice.

Ahmad said that he liked teaching division of labour. He said that it was an easy topic for him and his students. He stated that he had given the students practical activity to do in the classroom. In the activity, the students were divided into individuals and groups and they had to make a paper box.

Ahmad: My favourite topic to teach was the division of labour because it was an easy topic for the students and me. I used an activity. I divided the class into

groups and some into individuals, then I asked them to make a paper box, and in that way, some of them would experience the division of labour and some would experience that they have to do it by themselves. After the activity, since they have experienced, I write the important points on the whiteboard so that they understand. The activity shows that students were able to explain and understand everything through their experience.

Ahmad said that he did not like teaching the economic system: market, planned and mixed. He said that the students had difficulties in distinguishing between the advantages and disadvantages of each market system:

Ahmad: *The least favourite topic was the economic system, the market, planned and mixed economy system. I had time constraint and then the content was large; the introduction, the concepts, advantages and disadvantages. I had to cover everything in three weeks. The time was not enough, I had to rush as I had to follow the scheme of work. Then most of the students found it difficult to understand the concepts, difficult to understand the advantages and disadvantages. I don't think all students were able to distinguish between the three markets. I had used exercises, I used an activity, I write points on the board, I wrote market, mixed, planned, advantages, disadvantages, features, and then I just asked them to put which the statement in the right place and asked them to explain. Most of them were able to put the sentences in the right place but failed to explain about the sentences that show their understandings.*

Ahmad said he preferred to use 'power-point' in teaching. However, he said that he didn't get the chance to use power-point for teaching during teaching practice. So during teaching practice, he said that he liked to use activities and group-work. He found that the students liked activities and he discovered that students explained their ideas in the group-work and the activities.

Ahmad: For any subject, I prefer to use power-point. But in economics during teaching practice, I couldn't book any rooms so I didn't have any chances to use power-point for teaching. I like activities and group work as the students are able to explain. I find that they prefer group work rather than lecture. But I used the textbook to write the handouts for the students.

Although Ahmad was familiar with the teaching content, he said he had to learn more about the content. So he said that he still needed to do research and surf the websites to search for content and activities

Ahmad: I am familiar with all the topics but not in depth. So I just go to the library, and research in any books. And I surf the websites as they give lots of ideas for activities.

When I asked Ahmad about his view of learning to use his knowledge of economics to teach school economics, he said that the economics that he learned at the university were helpful in his teaching as he was able to answer his students' questions.

Ahmad: *Actually, learning economics at the university is useful because we have in depth knowledge of the topic, so when some students asked high knowledge questions, we are able to answer their questions.*

Ahmad said that from teaching practice, he learned to represent the teaching topics so that they would be interesting to the students. Ahmad also described the roles of his co-operating teacher, his peers and his supervisor during his teaching practice:

Ahmad: *I learned how to find good content, how to make topic interesting, how to use other teaching methods, like activities, group besides just lectures. My co-operating teacher had let me know which one was relevant because sometimes, I got carried away with 'high' knowledge. My peers helped me to do lesson plans, how to organise the class. My supervisor is important, because once or twice a week, I will go to him and ask his opinions on how to teach the topic. I will ask him how to improve my teaching.*

Other things that Ahmad had learned from his teaching practice, *"I learnt to be patient in preparing my lessons. I have to work hard. I have to ask opinions of others. I also asked students' opinions of me, and they said I talked too fast. So I learned to talk a bit slow. The school tells us lend us the books and helps out with our teaching aids"*.

Ahmad said that all the courses at the university helped him to become an effective teacher. He said that the methods of teaching for economics helped him to teach

economics. However, he suggested that the methods courses should give them more practice in teaching, such as how to conduct activities, *“Everything is important. Methods courses are important because they teach us how to teach economics. The other courses help me to become an effective teacher”*.

Ahmad said that he had experienced an economics teacher who had used a teacher-centred approach and consequently he understood how it could cause boredom in the pupils. So he said that he would try to make his teaching different, that is, more student-centred:

Ahmad: *From my experience, my economics teacher was just straightforward and only used lecture, lecture, lecture, and as students, we get bored. So now, that I am a teacher, I know how it feels as a student when the teacher just talks and talks, so that's why I tried to make things different and tried to involve students with activities and group work.*

Ahmad said that, *“Economics is connected to your life. It's about decision making, and how to organise our life, for example, for 'cost of production', in our life, we have to calculate our spending”*.

In summary, Ahmad's conception of economics was that the economics from the university was useful for his teaching. He told me that he was familiar with all the topics but he still needed to learn the content. He reported that his favourite subject to teach was division of labour because his students were able to understand the content. His conception of teaching was that he didn't want to teach like his school teacher who had

used the teacher-centred approach. He preferred to give students activities and involve them in teaching therefore he said that the methods recommended by the university had helped him in teaching. Thus, Ahmad was confident in his content knowledge and his ability to represent the content to his students during teaching practice.

6.7 Case 6: Zahrah

6.7.1 Zahrah's experiences of learning to teach economics during teaching practice.

Zahrah said to me that there was no connection between economics learned at the university and commerce taught at schools. She said that she had to rely on her knowledge and experience when she was a commerce secondary school student.

Zahrah: There is little connection between economics FBEP⁴⁸ and commerce in school. But I was lucky to have my experience as a commerce student during secondary school. I had referred to my old notes because the syllabus is still the same.

Zahrah articulated to me that she did not know why she took economics at the university because she did not have any O-level and A-level economics. She said that with economics knowledge, she knew how to explain the articles that she read in the newspapers. However she said that "*there is little connection between economics and commerce*".

Zahrah told me that she was familiar with all the commerce topics because she had learned commerce in her lower secondary classes (12-15 years old), "*That's why now, I*

⁴⁸ FBEP: Faculty of Business, Economics and Public Policy

tried to make them understand, so I created questions and puzzles, crosswords so that they are interested". Zahrah said that during teaching practice, the topic that she liked to teach was advertising. She said that it was easy and the resources for teaching advertising were everywhere. She had used power-point to teach advertising and she said that the students liked power-point. She said that she did a group activity after the power point, *"I wanted them to discuss and I give them a product, and I want them to discuss how they are going to promote the product, and they discuss among themselves and they present to the class. They like it, they design it. Most of the girls like to design. I give them manila card, and a chocolate bar. And they create their own product"*. Zahrah also said that she had used posters and she said she had asked the students to bring to the class any advertisements that they could find at home. She said that they had shown her what they found and shared their items with the class for the next lesson.

Zahrah told me that her least favourite topic was functions of the bank. She said that the students found difficulty in understanding the words so she had asked the students to ask their family about the functions of the bank, *"For example, functions of the bank, my activity was that I asked the student to go to the bank with their mom, relatives or siblings and I asked them to get brochures and I created questions like I asked them about the services of the bank"*.

Zahrah said that learning to be a teacher was fun. She said that her supervisor had helped her a lot. However Zahrah said that her co-operating teachers were not that helpful, *"My co-operating teachers, I have two, one is the subject teacher and the other one is my co-*

operating teacher. They had always promised to come so I prepared a lot. But they only came sometimes, and they sometimes came late during the lesson and missed the activities that I did for the class. They didn't help much in my teaching". Instead, Zahrah said that she discussed her ideas with her friends, *"My friends helped me. But mostly, my ideas are my own."*

She found that the pedagogy courses were helpful in her teaching. However, she stated that the methods of teaching should help them to prepare lots of teaching aids. She reported to me that the students said that commerce is boring. Therefore, Zahrah said they (commerce teachers) need to make the subject interesting to the students and teaching aids could help them motivate the students to learn.

Zahrah said that, *"Economics is about micro and macro. I don't have any background in economics. I don't know why I took economics but after I learnt economics, I could explain when I read newspapers"*.

In summary, Zahrah's conception of economics was that economics is not related to commerce. She had to learn the teaching content and she depended upon her old commerce notes as her teaching resource. She told me that she did not get enough support from her co-operating teachers. Thus, Zahrah was struggling with her content knowledge and the way to represent her content knowledge to students.

6.8 Case 7: Charles

6.8.1 Charles's experiences of learning to teach economics during teaching practice.

Charles said to me that he liked to teach the topic banking. He said that the topic was simple and the students were familiar with the topic. However, Charles said that he did not like to teach 'double-entry' because he said that he did not have any background in the content. Charles said that he struggled to understand the content.

Charles: *I don't like teaching ledger, double entry. I don't have background on that, so I had to study on my own, asked my co-operating teacher, asked my friends, and then I got through, but I struggled. I was able to teach well, and my co-operating teacher came, and she said it was alright.*

However, Charles stated that the double-entry was his best lesson because he was satisfied with his effort in trying his best to learn and teach the content to the students.

Charles: *The best lesson that I taught was the topic that I didn't really like which was the double entry. I find that the best because I am quite satisfied with my effort, and then it proves that everyone understood even though it was a struggle for me. I enjoyed the topic even though it was a struggle. My friends help me out a lot.*

Charles said that he had used the textbooks, his friends' notes when they were commerce students and his co-operating teacher's notes as his references for teaching. He stated that he had to understand what he was teaching because he wanted the students to know

that he was knowledgeable in the content. Therefore, when he taught the students, he said that he preferred not to read the notes while explaining.

Charles: *I have to read books, understand it well, because I don't like to look at the notes when teaching. I prefer straightforward, so that I want the students to know that the teacher is full of knowledge. I don't want them to have negative thinking of the teacher.*

Charles said that he had related his students' experience in his lessons.

Charles: *...for example, banking, I asked them about local banks and they were able to give lots of banks in Brunei. Most of them, they went to the bank, so they can tell me what was going on around the bank, so it was easier. And then, when I taught foreign trade, they were able to tell me where the port is, the 'Muara' port, they were able to give me examples.*

When I asked Charles about his view of learning to use his knowledge of economics to teach school commerce, he replied, "*For commerce, I don't think I applied my knowledge that I learned at UBD⁴⁹. Because for commerce, it's a simple subject, which we use lots of common sense, but off course, we need a strong background, but then again, nothing much was used*". Although Charles didn't think that his economics knowledge was applicable, he said that his pedagogy courses such as methods of teaching, psychology and sociology were useful in his teaching.

⁴⁹ UBD – University of Brunei Darussalam

Charles: *Sociology helps a lot as we have to understand the people. The most important thing is psychology. We shouldn't put them off when we teach. It's really helpful. Methods of teaching were really helpful.*

Charles said that his friends had helped him a lot in supporting him during his teaching practice. In learning to teach, he said that his friends were always around him, *"they helped me in my understandings, preparing my visual aids, and they give me tips on how I should do"*. Besides his friends, he said that his co-operating teacher and supervisor had also helped him. Even the students, he said, *"...gave me confidence. When they said that they can understand, it boosts up my confidence"*,

When I asked Charles about commerce content:

Charles: *Actually, I didn't have any background in commerce and economics. Even A-levels, I only took business, which I did poorly. But then, once I started teaching commerce, it was quite easy to understand.*

Charles said that in the future, there should be more local lecturers teaching the methods of teaching. When I asked to explain his reasons, he said that, *"Foreign lecturers are more into their economy. We can't relate their economy to the students at school. If they give us idea during teaching, we can simply relate what we learned and apply it at school"*.

Charles said that learning economics is important, *“It’s the role of the money. We learn to be economical. Students need to learn that because it applies to their daily lives. They are now in form 4 and form 5, so in the future, they might be someone important. They need to know simple stuff and international relations which we learn in economics which is important for them to know”*.

In summary, Charles conception of economics is that it does not relate to commerce. He said commerce is common-sense. Yet, Charles said to me that he had to learn the content for teaching because he said that he had no learning experience of commerce during secondary school. He also struggled to understand one of the topics, ‘double-entry accounting’ but he said that he managed to learn and teach the content to the students. He said that they needed more ideas given to them during teaching methods courses so that they could apply the methods in the classroom. Thus, Charles was struggling with his content knowledge and this could affect his ability to represent the subject to his students.

6.9 Case 8: Munira

6.9.1 Munira’s experiences of learning to teach commerce during teaching practice.

Munira told me that she like to teach the barter trade because she had asked the students to do role play as their activity. She said that the students had enjoyed the lesson.

Munira: I remember my favourite topic was barter trade because I remember I asked the students to do role play. And they like it so much and they grab the ideas so fast. I give them group activity. I separated them into six groups, so one

group about four students. And one group I give like about three goods to exchange, goods that are interesting for them, like comics, pepsi.. And then I said "let's do exchange, who wants comic?" And the guys, would say, "I want them" and I ask them, "What goods they have?" And they reply, "Pepsi, do you agree?" And the other party agree. And then, I asked them to explain what happen. And they said, "tukar barang" (exchange goods) and they said, "the other party agree". And then after that, I explain the term barter trade. And they said, "easy to remember". I did in one lesson because it was a double period.

Munira said that barter trade was her best lesson. She said that the students had enjoyed the lesson and they had understood the concept of barter trade. She said that her objectives for the lesson were achieved.

Munira: *...That was the best lesson. Students were having fun. So that was important. They enjoyed, and they involved in the lesson. To make their friends to exchange with them, they tried to persuade. They understand the concept. So I manage to target the objective to teach.*

Munira reported to me that she didn't like teaching the topic, 'money' especially the functions of money. She said that the students found difficulty in 'remembering the exact words'. Munira said that the students could explain their ideas but they had used Malay words.

Munira: *The least favourite topic will be money especially functions of money, because they can just simply look at the money, and they said, "...Ah..ok". But*

with functions of money, they struggled a bit especially, remembering the exact words. They remember the functions of money in Malay, “untuk bayar hutang (to pay debts), untuk beli the goods (to buy goods). But to remember the words, difficult for them and I don’t know how to... I can simplify in Malay. They can explain but they find it difficult to explain using the terms.

Munira emphasized that the students found difficulties in understanding the commerce ‘terms’ or ‘words’.

Munira: *They find it difficult to use the terms. They are form one. Commerce is a new thing. I asked them and they would say, “Commerce is the hardest thing”. The terms are just difficult for them. They are still kids.*

When I asked Munira to comment about the economics at the university, she said that the economics that she learned was too advanced for her teaching. In addition, she said that teaching economics was different from teaching commerce.

Munira: *Actually, the economics that I learned at UBD⁵⁰ is far more advanced. But the methods for teaching are very much useful. They teach you how to teach. But economics I learned at FBEP⁵¹ were too advanced for form one students. So eventhough I learned MOT⁵² economics, I just apply the knowledge to teach commerce. But it’s difficult to apply MOT economics to commerce because commerce is simplified. Commerce is more into activities because of the level of students, whereas economics, they are form four and five, more explanations.*

⁵⁰ UBD: University Brunei Darussalam

⁵¹ FBEP: Faculty of Business, Economics & Public Policy

⁵² MOT: Methods of Teaching

Munira said that she only used the school textbook. She said that the school textbook was outdated and she said that she had to update the information by herself.

Munira: *I just use the brown textbook. There is no other option. But it was such an old book where lots of terms are not valid anymore. So my cooperating teacher had to help. I tried looking at the Internet but little for commerce. It is not a famous subject. Topics like retail trade, it is difficult to relate to students and too advanced to explain to form one students.*

Munira said that she was thankful that she had learned all the topics in form one to form three. However, for some topics, she said that she had difficulty in explaining because she said that she had forgotten about the 'content'. So she had to prepare in advance to revise the topics again.

Munira: *All the topics that I taught, I had learned already in form one to form three. It's just that I forgot so it was difficult to explain to them. So what I did, a week before the lesson, two weeks in-advance, I have to read the textbook. Luckily, my sister had done commerce, so I asked my sister, what her teacher did in the class. After that, I got the ideas. And I asked my old teacher at the school, he was good. I got ideas from him as well.*

Munira said that she would relate the students' experiences to her lesson. She said that she would ask the students for examples. She said that the textbook did not have local examples so she would ask the students to relate to their own experiences.

Munira: *Usually, I asked them first. For example, functions of money. I asked them, "What did you do yesterday? Did you go shopping?". Then I asked them, "why money so important? Why can't you buy the shoes?". When they relate to their experience, they understand. I notice if I only explain, the students found difficulty in understanding. So I rather ask them first so that they can relate. Local examples, like retail shop, sole traders, I would ask local examples. Such as department store, they replied, "Hua Ho department store". Because in the textbook, there are no local examples, so when they give all these examples, they can remember 'What is a department store?'. It's better to give local examples. Students will remember so it is easier to use local examples.*

Munira said that her view of being a teacher had changed. She said that at first, she was reluctant to accept that she was a teacher but she changed her mind as she accepted her role as a teacher. She said that she had to recall her experience as a student when she had a good teacher. She said that now that she is a teacher, she is thankful that she could help students to learn.

Munira reported to me that her supervisor had encouraged her to do activities in her classes. She said that her supervisor advised her to use her understanding of psychology to enable her to manage students' behaviour. Munira said that she discussed her ideas for activities with her peers during teaching practice. She said that she had used her peers' activities for her teaching commerce, such as the bingo activity. In bingo, Munira said that the students were asked to pick a number, Munira would then read the question and

the students had to answer the question. Munira said that she usually did this bingo activity after she finished a topic. Munira said that everyone was helpful in giving her ideas for teaching, including her cooperating teacher, her lecturer for methods of teaching and her family including her sister, cousins and father. However, as Munira said, *“it was up to me to implement the ideas in the classroom”*. She said that the students are now exposed to the new way of teaching and the students have accepted the creative way of teaching.

When I asked Munira to comment on the applicability of her courses at the university to her teaching, Munira only commented on the pedagogy courses. She only said that the useful economics topics for her teaching were the economy of Brunei, micro-economics and macro-economics. She said that she did not like statistics because she said that the lecturer did not know how to explain the content.

Munira: *Really useful is introduction to teaching where I remember, not to think that all people think the same. At SHBIE⁵³, I learn all the important points to be a teacher. I realized that being a teacher is not easy after all. We did simulated teaching, etc. At SHBIE, they transform us from students to teachers. SHBIE prepares us to be a teacher. At SHBIE, they challenge everything where we have to assess the students' level of understanding. That's the most important thing. I know that in schools, the end of year, it's the achievement, but I learned that actually, at the end of year, it's the students' understanding. So SHBIE was helpful in being an eye opener on teaching.*

⁵³ SHBIE: Sultan Hasanal Bolkiah Institute of Education

However, Munira said that in the simulated teaching during the methods of teaching classes, they should have considered a real lesson where their peers would behave like 'real students'. She said, "*It'll make the lesson interesting*". She said that in simulated teaching, all of them behaved well because the students were our own friends. However, she said that they should have considered psychology in simulated teaching. She recalled her friend's experience when teaching in a single-sex school, "*she was shocked. It's much worse in real situation*". Munira said that the problem with methods of teaching was that they were not really prepared to meet the real situation. Therefore, Munira suggested that the methods of teaching courses should include factors concerning students in simulated teaching so that the future pre-service teachers are prepared for their teaching practice.

Munira said that learning economics is "to learn the real world".

Munira: *You cannot learn economics by reading textbooks. But you need to update by reading papers, we have to know other countries' situation. For example, if we want to know about exchange rates, we need to know the situation, we have to know the country's policy. We have to know the real world. Learning economics teach you to be alert. Everything is not fixed. No right or wrong. So many arguments are subjective. But you have to know the theories as well.*

In summary, Munira's conception of economics is that it is not related to the subject that she was teaching, that is, commerce. For her, commerce is about activities and economics is about explanations. Her conception of the methods recommended by the

university was that the methods to teach economics were not that applicable in teaching commerce. She had struggled to teach ‘money’ because she had difficulty in finding alternative terms to replace the textbook words. The content about ‘money’ is actually part of economics. Thus, Munira did not really understand her subject knowledge and her pedagogical knowledge to represent the subject knowledge was also not sufficient.

6.10 Case 9: Mona

6.10.1 Mona’s experiences of learning to teach economics during teaching practice.

Mona reported to me that she liked to teach cost of production. She said that she liked teaching the topic because the students found the topic to be interesting and they had understood what she had taught.

***Mona:** I divided the students into groups. I brought many stationeries so I let them decide which stationary they want to order and sell it in their shop.*

She said that the best lesson she had taught was the economic system because the students had asked many questions in the lesson. Mona said that their actions showed that they wanted to understand what they were learning. Mona said that for some of the questions, she didn’t know the answers, “*Types of market, they raise lots of questions, such as command economy, market economy, sometimes some questions, I don’t really know how to answer. So I ask them to find resources and I also find resources and the next day, we discuss them*”.

Mona said that at the university, they learned economics in detail so that they could teach properly in the class. However, she also said that some of the economics topics that they learned at the university were for personal knowledge only and not for teaching, “..but there are some topics, let’s say ASEAN economy, I don’t see any ASEAN economy in form four and form five textbooks, so we learn this for our personal knowledge, I don’t think it applies to teaching in school. I think economics is relevant so that we know what is going on”.

Mona said that she never studied economics during form five so she had to find the teaching resources from textbooks, the Internet, newspapers and magazines. Mona said she also discussed how to teach the topic with her friends.

Mona: *Usually I go to UBD⁵⁴ library and I find lots of economics books. I don’t have any favours of textbooks because some are relevant and some are not. I use the Internet, I use yearbook and I use newspaper. I just typed the specific words at the search engine. Such as diversification, so I show the students related information regarding diversification in Brunei then I gave the students tasks such as they had to find the information in the newspapers. In this way, they can apply economics to the real world.*

Mona said that she would ask the students for their opinions and ask them to give their own examples.

Mona: *Let’s say division of labour, I did give activities where one group do it individually and another group do it in groups. And then I ask them their point of*

⁵⁴ UBD: Universiti Brunei Darussalam

view, which one is better, which one is efficient and then from then onwards, from their activities, some will say individual better and group work better. I will just ask them about their opinions.

Mona articulated to me her thoughts on learning to be a teacher during teaching practice where she talked about the teachers, supervisor, the school and the subject of economics:

Mona: *Initially, before I went to SHBIE, I thought a teacher is just teaching a student, but at SHBIE, I learn that being a teacher, there are lots of duties, responsibilities, and things to do. Methods of teaching are useful for teaching economics. Before that, I didn't realize students like activities. You can teach effectively with the help of activities and that students find it enjoyable. I think during teaching practice, my cooperating teacher was very helpful. And we discussed beforehand how to teach these topics so that it would be much better. And that my supervisor is not an economics teacher, so she just helped in classroom management. The school provides lots of manila cards for activities. But I don't think the school provides help specifically for economics because I have to find classes to teach. I think there are fear and doubt of taking economics because of essay writing so less people took economics and they opt for other subjects like accounting.*

Mona said that, *"Learning economics is like I know what is happening in the world. Like when I read the newspapers, I sort of understand deeper with my economics"*.

In summary, Mona's conception was that some of the economics knowledge at the university was for personal knowledge and not for teaching purposes. She said that she liked students asking her questions but as she told me, she did not know the answers for some of the questions about the market system (the market system is one of the basic topics in economics). However, Mona learned that when her students asked her questions for which she did know the answers, both she and her students researched the answers together. Mona's conception of pupils learning economics is for the students to relate economics with social reality. Thus, Mona had an understanding that economics needed to be linked with the real world and applied in the real world.

6.11 Case 10: Sabrina

6.11.1 Sabrina's conceptions of teaching commerce

Sabrina said that she liked teaching the topic, 'large and small scale retails' because she said that the topic was related to the students. She said that she had asked the students to do a project for this topic and present their project in the class. She had asked the students to find pictures of large and small scale retailers. Although the students presented their project, Sabrina said that their work was not what she wanted. The students did not understand the features of large and small retailers. Yet, Sabrina said that she was happy with the students' effort in presenting their work in the class.

Sabrina: My favourite was the large and small scale retailing because it related to them. I asked them to go home and get pictures. I asked them about the features of small scale retailers like hawkers, so I sent them off to do some project. And they presented the project in the class. They were ok but it was not

what I really want, but at least they were doing something. And they never had presentations before. They were quite nervous because it was their first time. The project was I asked them to look for pictures, small scale and large scale. I also used power point to attract their attention, and I used pictures. My cooperating teacher told me that my students couldn't imagine what I was referring to when I explain about large scale retailing when I explained about the features. So that's why I used power point.

Sabrina also said that she liked teaching the topic 'branding'. She said that she had put a lot of effort in teaching the topic. Sabrina said that usually the students were quiet so she was happy when they responded in the class.

Sabrina: *First I showed something that had no brand, then I asked the students if they wanted to buy the thing with no brand, then they gave lots of answers. Normally, when I teach, they kept quiet, so at least, during that lesson, they gave responses like it was not beautiful.*

Sabrina articulated to me that she also liked to give local examples, for example, the topics like 'supermarkets', and 'department stores'. She said that she had asked the students to look out for pictures and examples, and that they then presented them in the lesson.

Sabrina said that she had used the textbook and the Internet.

Sabrina: *Most of the time I used the Internet but I just kept myself to the textbook. Not really my favourite but more convenient and it follows the scheme of work.*

Sabrina said that the methods of teaching that she had learned at the university had taught her to “*make things attractive and try to give examples*”. However, since the methods of teaching were for economics teaching, she said that she had to adjust the methods for teaching commerce. Yet, Sabrina said that MOT helped her to improve her presentation.

Sabrina: *From what I learnt at MOT, I have learned to make things attractive and try to give examples. So I try to make use of what I learnt, such as make use of the examples like story based, really helpful. I learned the way to present. Frankly, my English is not very good. So MOT helped me to improve my presentations, like don't talk too fast, etc. I learnt a lot from MOT. He really makes us to think. He always asked why and made us to think a lot. He made us to think why the students think this way and not that way.*

However, Sabrina said that the peer teaching that they did during methods of teaching did not depict the real experience of teaching in schools.

Sabrina: *...when we did peer teaching, all of us, we know the topic already, we all just keep quiet, so we don't really experience the way to teach in the real school. We need to have the feeling of how to teach in real classrooms.*

Sabrina told me that the economics that she learned at the university was not applicable for her teaching commerce. She said that she had to learn the commerce content. She articulated to me that she had to make students' handouts by herself. She said that the students did not have the textbooks and she had to simplify the words for the students. She didn't get much help from her cooperating teacher and she was left on her own to think about the lessons and the way to represent the lesson. She would ask her supervisor and colleagues for ideas:

Sabrina: I discussed with my colleague and she gave me ideas. Since my supervisor and lecturer were the same, so most of the time, I contacted him through emails. I sent him the notes that I wanted to teach the students and he commented on them. So most of the time, we contacted through emails. Frankly, my cooperating teacher, I only saw him once in a blue moon. Most of the time, I discussed with my colleague and my lecturer.

Sabrina said that, *"If someone knows economics, they know worldwide things, like what happens to the currency at this time"*.

In summary, Sabrina's conception of commerce was that the subject is different from economics. Sabrina had to learn the commerce content in order to teach the students. Sabrina's conception of her teaching was that she liked to involve her students during teaching and she included her students' examples in her teaching. She told me that she learned to make lessons attractive and gave students examples. Thus, Sabrina was trying to cope with learning new content and also the way to represent that new content to the

students. She was struggling with her subject knowledge as well as her pedagogical knowledge.

6.12 Discussion

In this section, the categories from each pre-service teacher's experience of learning to teach are related and integrated to each other. When analysing the data, I had asked question, "What are the pre-service teachers' experiences of learning to teach during their teaching practice?". This means that the pre-service teachers' conceptions of their use of subject knowledge for teaching and their conceptions of teaching school subjects are further explored.

School subjects as 'new' knowledge

The pre-service teachers struggled to learn the teaching content. The pre-service teachers reported to me that they have to learn the content before teaching. Although in the earlier chapter, the pre-service teachers reported to me that school economics and commerce are 'basic' and 'low' knowledge, the pre-service teachers found difficulty in understanding the content. Their conception is that the school content is 'new' knowledge and therefore they have to learn this 'new' content before teaching. They reported to me that they usually discussed with their peers if they were not sure of the content. When I asked about their co-operating teachers and supervisors, the pre-service teachers experienced that they lacked supervision from co-operating teachers and supervisors concerning the content that they had taught to the students.

As with the earlier data collected, the pre-service teachers perceived university economics as advanced and 'high' knowledge. Some of the pre-service teachers (Noraini, Lisa, Ahmad, Mona, and Salmah) said that only some of their university economics were useful for teaching while others said that their university economics was not applicable for teaching school subjects.

Teaching approaches

The pre-service teachers' conceptions of the methods courses were that half of them (Noraini, Ahmad, Sabrina, Mona and Charles) found that the methods were useful while others did not find them applicable for classroom teaching. However, the pre-service teachers reported to me that they gave activities for their pupils and asked their pupils' opinions. They also told me that they gave examples, used the Internet, newspapers and magazines. In other words, they were saying that they were relating the subjects with the social world.

As with the earlier data, the pre-service teachers reported to me that they relied upon their personal experience as pupils of commerce and economics to help them teach the content. The pre-service teachers also depended on school notes to teach the content. However, relating to their early experience, the pre-service teachers did not prefer the teacher-centred approach. Ironically, one pre-service teacher, Lisa reported to me that she preferred the teacher-centred approach in her teaching because she could control the pupils' behaviour.

In the next chapter, the categories analysed in chapter 4, 5 and 6 are used to generate a theory which would attempt to explain the subject of this research; pre-service teachers' conceptions of subject knowledge and teaching.

Chapter 7

Conceptions of Knowledge

In the previous three chapters, I have presented data pertaining to ten pre-service teachers in their process of becoming teachers: chapter 4 discussed the pre-service teachers' conceptions of the way to teach, chapter 5 explored the way the pre-service teachers transform knowledge when teaching their pupils and chapter 6 presented the pre-service teachers' conceptions of their teaching practice experiences. In this chapter I analyze and discuss the data described in the previous three chapters using an interpretative methodology.

I have organized this chapter into six main sections. In the first main section, I will explore the three conceptions of knowledge constructed by the pre-service teachers in this study. The first conception, I will theorise at a deeper level the pre-service teachers' notion of 'high' and 'low' level of knowledge. Here, I tackle my first operational research question, 'What is the relationship between pre-service teachers' conception of economics and how they want to teach economics and commerce?' The second conception, I will analyse the way the pre-service teachers transform their knowledge of economics for teaching and develop the pedagogical considerations. I then explore my second operational research question, 'How do pre-service teachers teach economics and commerce in practice?' The third conception, I will develop the pre-service teachers' notion of university knowledge and pedagogical knowledge. I will examine my third operational research question, 'What are the conceptions of pre-service teachers in using their specialist subject knowledge when teaching economics and commerce?' In the

second section, I will re-address my operational research questions for this research. Then, in the third section, I will discuss the pedagogical considerations that arise from these conceptions. Next, in the fourth section, I will discuss the significance of my research followed by my recommendations for teacher education in Brunei Darussalam. Finally, in the last section, I will present my conclusions for this research.

7.1 The conceptions of knowledge

7.1.1 The conception of 'high' and 'low' levels of knowledge

This sub-section explores my first operational research question, 'What is the relationship between pre-service teachers' conception of economics and how they want to teach economics and commerce?'

Davies and Brant (2006) argue that teaching is more than delivering content or even helping students understand the content. Therefore, to make sense it must be possible to understand a concept at several levels of complexity (Davies and Brant, 2006):

"That is, we would not say that a student does or does not understand a concept such as 'price' or 'depreciation'. We would say that either they understand it in this way, that way or another way".

(ibid, p. 155)

Davies and Brant (2006) argue that students' learning is shaped by their experiences of business, the economy and enterprise, but only in so far as this experience has influenced their perceptions of the world. Their learning is also shaped by their perceptions that they

have developed as a result of their experience of learning. Good teaching is not simply a matter of 'building on' these prior perceptions because new ideas must be embedded in students' thinking if they are to become part of the way they see the world. This may require getting students to recognize the limitations of their current thinking and enabling them to develop a different view that replaces what was there before. Teaching that does not change what students think is unlikely to have a lasting impact.

Davies and Brant (2006) argue that unless the student can relate the new idea to the way they have constructed their understanding of the world, it will have no impact on their day-to-day thinking. A division will remain between 'school knowledge' and 'everyday knowledge' (Barnes, 1976; Rogoff, 1994; Carraher et al., 1985). While everyday reasoning may be prone to all manner of errors (Perkins, 1989), it will continue to be used unless teaching leads students to revise (rather than add) to their current thinking. We might succeed in helping a student get a good examination grade, but they will not use their school knowledge to any practical effect and will forget it soon after they leave (Davies and Brant, 2006).

The complexity discovered in my research is the 'reality' of knowledge conceptualized by the pre-service teachers in my study. My research revealed they had notions that there were different 'levels' of knowledge; 'high level' and 'low level'. Their notion of economics was that university economics was 'high' level of knowledge and school economics and commerce were 'low' level of knowledge. The pre-service teachers also expressed their views that 'high' knowledge of economics referred to deep and broad

economics while 'low' level of economics referred to key concepts of economics and commerce. Consequently, the pre-service teachers' conceptions of 'high' and 'low' levels of knowledge have greatly influenced the way they conceptualize teaching in schools. This notion of 'high' and 'low' levels of knowledge will be further theorized later in this chapter.

7.1.2 The conception of knowledge for transformation

In this second sub-section, I explore the way the pre-service teachers transform their knowledge of economics for teaching and I explore the pedagogical considerations. This section explores my second operational research question, 'How do pre-service teachers teach economics and commerce in practice?'

Shulman (1986b) argues that transformation of knowledge happens when a teacher comprehends the subject and transforms the subject to make it comprehensible to others by using the most useful forms of representation of ideas. He argues that transformation helps build bridges between teachers' comprehension and students' understanding. Turner-Bisset (2001) argues that teachers think about the kinds of representations for particular age-ranges and how to reinforce an idea through the use of different representations. Magnusson, Krajcik and Borko (1999) argue that for transformation of knowledge, teachers need to know about the purposes for teaching the subject, the subject curriculum, their students' understanding of specific topics and the teaching strategies for teaching that subject. However, Eraut (1994) argues that teaching strategies of student teachers are generally acknowledged to be strongly influenced by their earlier

experiences as pupils. He says that student teachers may not know that they are teaching the same way as they were taught themselves.

Grossman (1990) argues that the purposes of teaching a subject are reflected in teachers' goals for teaching subject matter. Siegfried (1998) argues that economics teachers should teach the pupils to 'think like an economist'. They should teach problem-solving skills as this can increase the students' understanding of economic behaviour and creative skills as this helps the pupils to identify economic issues and problems. However, Walstad and Saunders (1998) argue that the purpose of teaching economics using the problem solving and creative skills is only facilitated by the teachers' breadth and depth of economics knowledge.

In my study, the pre-service teachers' notions of 'high' and 'low' levels economics had influenced the way they teach. The pre-service teachers reported to me that they need a 'low' level of economics knowledge for teaching school subjects whereas a 'high' level of economics for them is beneficial for answering pupils' questions. However, the 'reality' of knowledge is again complex; the pre-service teachers regard school subjects as 'new' knowledge that they need to learn before they teach. I reported their responses in the previous chapters (4, 5 and 6) whereby the categories identified were that the pre-service teachers were not familiar with the syllabus, they were not sure what to teach, they were not sure how to teach the content, they lacked the guidance in teaching from their co-operating teachers and supervisors, and their conceptions that economics and commerce were difficult for their pupils to learn. However, my research showed

variations within these categories. Firstly, for the pre-service teachers who did not take economics or commerce during their secondary schools, they reported to me that they were not familiar with the syllabus and the content. On the other hand, the pre-service teachers who had taken economics or commerce during their secondary schools reported to me that they relied on their experience as pupils. Secondly, the pre-service teachers were comparing the teaching methods that they had used at the university and the applicability of these methods in real classrooms. Six of them: Lisa, Nadia, Salmah, Charles, Munira and Zahrah were not sure that the teaching approaches were applicable in real classrooms. Finally, the pre-service teachers' experience of learning economics and commerce when they were secondary pupils influenced their conception; they labeled economics and commerce as difficult subjects for their secondary pupils. For example, the pre-service teachers reported to me that the language of the textbook is difficult for their pupils to understand. They said that the English language is a problem for the pupils: these language difficulties included the key concepts of economics and many words might be new to the pupils.

In order to make economics and commerce comprehensible to their pupils, the pre-service teachers' notions of 'low' level economics again influenced the strategies to cope with knowledge transformation. The categories identified as strategies that the pre-service teachers developed to cope with the phenomenon were that they need to learn content before teaching, they rely on their past experiences of learning school subjects, they discussed with their peers, they relied on old notes, they had to simplify the textbooks for their pupils' understanding and they had to be bilingual (use English and

Malay language) in teaching. There were variations within these categories. Firstly, the pre-service teachers were not sure about the way to teach the school subjects. For example, some of the pre-service teachers reported to me that they lacked teaching guidance from their co-operating teachers in schools and from their supervisors as they only commented on classroom management but not on 'content'. Therefore, the pre-service teachers in this study preferred to discuss what to teach and how to teach the school subjects with their peers. Secondly, the pre-service teachers' notion of school subjects as 'low' levels of knowledge is that they need to simplify the textbook so that their pupils could comprehend the content. The variation in this is that the pre-service teachers were not sure about the teaching content themselves but they were simplifying the key concepts of economics by changing the words in the textbooks. Besides simplifying the textbook, the pre-service teachers said that they found it easier to use old notes (their previous notes and borrowed notes from friends and siblings) since they were already simplified and ready to use for teaching.

A related discovery that I made is that the way the pre-service teachers transform their knowledge when teaching was similar to the way the two 'experienced' teachers represent the teaching contents to their students. In my pilot study (see Appendix 1), the two case studies of 'experienced' teachers showed that they were not sure about the content for teaching and they found difficulty in relating the theory to the social world. They depended heavily on the textbooks for teaching and they regurgitated the content to the pupils. I observed that their pupils had to memorize the content instead of understanding what they were learning. Hence, in my pilot study, I discovered that the

two case studies of experienced teachers were also not confident with their content knowledge.

Consequently, this section emphasized that the pre-service teachers' notions of 'high' and 'low' levels of knowledge also surrounded the way they want to teach the school subjects. One of the problems uncovered by my research is that although the pre-service teachers conceptualize school subjects as 'low' levels of knowledge, they still struggled to understand the content for teaching and to represent the content for pupils' understanding. An apparent danger is that this phenomenon might continue when they become qualified teachers.

7.1.3 The conception of university knowledge and pedagogical knowledge

In this third sub-section, I theorise the pre-service teachers' notion of university knowledge and pedagogical knowledge. This section examines my third operational research question, 'What are the conceptions of pre-service teachers in using their specialist subject knowledge when teaching economics and commerce?'.

Schon (1987) argues that reflective practice contains features that represent the past, present, and future aspects of the reflective process. Schon also distinguishes knowing-in-action and reflection-in-action where he argues that knowing-in-action is when a teacher's reflection is only a means of judging his or her performance whereas reflection-in-action is when a teacher's reflection is a way of increasing his or her understanding of teaching. Calderhead & Gates (1993) argue that student teachers basically describe their

practice in the beginning stages and that the levels of student teachers' reflection appear to occur only over a length of periods of time. However, Wood (1996) discovered that student teachers' conceptions of teaching started with conceptualizing teaching as only imparting knowledge and later they became aware of preparing their pupils to be more reflective in their learning.

Eraut (1994) found that pre-service teachers reflect on their own past experience of schooling and their lives such as the many ideas about education in the mass media and in everyday conversation. He argues that reflective practice is a deliberate process that involves interpretation and understanding of an event. Therefore, facilitators such as mentors and educators are important in pre-service teachers' reflection of their practice (see Calderhead & Gates, 1993). However, educators, teachers and student teachers need to listen and be sensitive so that they can understand the cultural, economic and political power in their working contexts (Foucault, 1980).

In the previous section, the complexity occurs when the pre-service teachers reflect and interpret their experience of teaching during the interviews (chapter 6). They reported that they had given their pupils activities to do, they had asked their pupils questions and they had used examples in their teaching. However, when their responses were compared with the data from observation and other interviews (chapter 4 and 5), the findings had shown that the pre-service teachers had difficulties in understanding the content, that is, the key concepts that they were teaching, they struggled in representing the content to

their pupils and they were not confident in their knowledge of key concepts of economics.

Furthermore, the pre-service teachers' notion that university economics is different from the school subjects that they taught has also influenced the notions of what is 'new' knowledge. As explained earlier, their conception of 'high' and 'low' level economics is that they categorized school subjects as 'low' knowledge and university economics as 'high' knowledge. The pre-service teachers reflect that university economics is different from economics knowledge for teaching hence they need to learn this 'new' knowledge for teaching. In other words, the pre-service teachers interpreted that curriculum knowledge is a separate knowledge base for teaching. The pre-service teachers believed that they lacked the curricular knowledge for teaching and they argued that they needed to be familiar with this curricular knowledge before they went to schools to teach. However, the complexity of knowledge could be that the pre-service teachers' knowledge to teach might be tacit (Eraut, 1994). The pre-service teachers might not be aware that they were theorizing their own theories, other teachers' theories, and their pupils' theories. Thus, they were actually familiar with the content before teaching but were not aware that they had that knowledge.

In summary, my research shows that the pre-service teachers appeared only to reflect on their 'performance' of teaching rather than to reflect on the way their pupils' learn. They did not reflect that the way that they can help their pupils' learning is by relating economics and commerce to the social/real world. It begs the question, 'How can pre-

service teachers relate school subjects with the social world when they were not even sure about the theory themselves?'.

7.2 Re-addressing operational research questions

7.2.1 Question One: *'What is the relationship between pre-service teachers' conceptions of subject knowledge and how they want to teach economics and commerce?'*

My research reveals that the pre-service teachers of economics in this study were insufficiently aware of the broad structures of economics as subject knowledge. There was an apparent paradox in the pre-service teachers' responses when they said that economics relates to real lives because their actions in the observation and their responses in the interviews indicated otherwise. They are expected by the university to interpret economics and link with the social world when they teach. Yet my observation of their teaching indicates that they were not doing this. My research has shown that the pre-service teachers seemed to lack subject knowledge of economics, that is, the conceptual knowledge of economics, the nature of the economics, and the orientations to teaching economics.

To teach school economics, the pre-service teachers need to learn to construct new knowledge and apply it in a way that school pupils can understand. In other words, the pre-service teachers need to be aware that their knowledge of economics facilitates their understandings of school content. Shulman (1987) argues that a teacher's curricular knowledge is a separate knowledge base. In my research, not only were the pre-service

teachers not confident in their content knowledge, they were also struggling to understand school economics. However, their knowledge of economics might be tacit (Eraut, 1994). Therefore, in order for them to understand the usefulness of their subject knowledge, the pre-service teachers need to 'bridge' their subject knowledge with the curriculum content.

7.2.2 Question 2: *'How do pre-service teachers teach economics and commerce in practice?'*

My observations were consistent with the literature in other subjects. My research has shown that there was not much difference in the way the pre-service teachers of economics transformed their knowledge for teaching compared to pre-service teachers of mathematics (see Ball, 1991, Even, 1993, Talbert, et. al., 1993, Bookhart & Freeman, 1992), pre-service teachers of history and social studies (see Wilson & Wineburg, 1988 and Gudmundsdottir, 1990) and pre-service teachers of science (Gess-Newsome, 1999). In my study, the pre-service teachers' fragmented content knowledge affected the way they taught. Although they did not want to teach like their previous teachers, they were not enthusiastic about the teaching methods recommended by the university. They then adopted coping strategies. They 'modified' their teaching methods where they usually transmitted the knowledge from the textbooks. Besides textbooks, I found that the pre-service teachers preferred using 'informal' past school notes rather than referring to the 'formal' textbooks. Yet, the pre-service teachers were usually not aware that they were transmitting knowledge rather than constructing their pupils' learning.

My observations are that the pre-service teachers appeared to be vague about the objectives of teaching economics. They thought that by simplifying textbooks, they can make their students understand their teaching. They emphasized teaching theories to the pupils and they appear not to be promoting the conceptual understandings of their pupils, such as encouraging their pupils to think, interpret and analyse economic situations in order to understand the theory. The pre-service teachers need to understand that to learn and understand economics, they need to link the theories with the real world. Indeed, I found that the pre-service teachers lacked confidence in their subject knowledge. For example, when Noraini was teaching the theory of 'barter trade', she could not link this topic with the theory of 'money'. Instead she reported to me that 'barter trade' was a difficult topic for the pupils to understand and difficult for her to teach because barter trade does not exist nowadays. Hence, it was difficult for Noraini to explain the economics content for her pupils' understanding because she lacks confidence in subject knowledge.

7.2.3 Question 3: 'What are the conceptions of pre-service teachers in using their specialist subject knowledge when teaching economics and commerce?'

I discovered that the pre-service teachers view was that the economics they learned at university was not really applicable for teaching school economics. Their conception was that economics at university is 'high' knowledge and school economics is 'low' knowledge and their conception is that it is difficult to relate 'high' knowledge to 'low' knowledge. Their conception was that to teach school subjects, they need to rely on their school experiences, school notes and school textbooks for teaching. In consequence, the

pre-service teachers were not able to construct new knowledge for the topics that they teach.

Although the pre-service teachers learned different approaches for teaching economics at the university, their common conception was that the teaching approaches recommended were difficult to apply in schools. My research has shown that the pre-service teachers might not understand the teaching approaches recommended to them. The pre-service teachers seemed to have difficulties in linking their knowledge for teaching at the university with school practices.

In summary, we go back to the main research question, *'How do pre-service teachers use their subject knowledge of economics to teach secondary school subjects of economics and commerce in Brunei?'*

My research has revealed that the pre-service teachers relied on their personal experience as economics pupils and 'low' levels of subject knowledge for their way of teaching. Since none of the pre-service teachers held a sufficiently broad understanding of economics, they were forced to learn new content while teaching. The pre-service teachers overly relied on textbooks. As they were 'comfortable' with the school notes and textbooks, in consequence, they seldom sought-out other resources, for example, the Internet and Mass Media to search for current issues and teaching materials. In addition, my research reveals that although the pre-service teachers' conception of teaching was that they were using a student-centered approach, as they had given 'activities' for their pupils, yet these 'activities' revolved around the school notes and textbooks. In my

research, the 'activities', as the pre-service teachers called them, were discovered to only allow their pupils to recall and remember the content from the textbooks. Again, they seemed not to understand that economics theory needed to be analysed, interpreted and related to the social world and current events.

Therefore, my research has shown that the subject knowledge of economics pre-service teachers is weak. They failed to understand that it was an advantage for them to apply their subject knowledge in order to teach the school content. On the other hand, maybe the reason they found it difficult to apply their subject knowledge was because they did not really understand the knowledge that they had learned at university. In consequence, the pre-service teachers' lack of understanding of the disciplinary nature of economics prevented them from learning new content.

7.3 Pedagogical considerations for development

The notions of 'high' and 'low' level of knowledge theorised by the pre-service teachers in this study are clearly problematic. My research shows that it would be helpful for pre-service teachers to be aware that by acquiring deep knowledge of economics at university, it can help them teach school subjects as well as construct the kind of new knowledge advocated by Davies and Brant (2006). Pre-service teachers need to reflect that weak subject knowledge of economics might affect the way they perceive the content for teaching. As explained earlier, the pre-service teachers struggled to learn the content for teaching but they reported to me that school subjects are 'low' knowledge. However,

I show that the pre-service teachers need to have a thorough understanding of the broad nature of economics in order for them to relate economic concepts for teaching.

Another pedagogical consideration is that of the substantive knowledge (Shulman, 1987, Grossman, 1990) of the pre-service teachers. In my study, I report that the pre-service teachers' conceptualize that learning economics is about the social world, so it is somewhat ironic that most of them depended on curricular materials such as textbooks for teaching (see chapters 4, 5 and 6). However, their conceptions are that the textbooks are difficult and abstract for their students to understand, so they had to simplify the 'words' of the textbook. My research shows that there is a risk of misrepresenting the content to the students because of their weak content knowledge. On the other hand, in my study, I discovered that if the pre-service teachers had access to previous learning notes prepared by other teachers, they much preferred those rather than the textbooks. These learning notes were already simplified and had been used for learning by many pupils. The pre-service teachers, without realizing it, were interpreting other teachers' theories and their own theories (Eraut, 1994). However, my argument again rests on the pre-service teachers' weak subject knowledge. The pre-service teachers' might not have the conceptual means to decide whether other teachers' theories are accurate or not.

The pre-service teachers' conception of good teaching in this study has raised pedagogical considerations. In my research, the pre-service teachers' notion of teaching is to help their pupils understand the content learned. Although the pre-service teachers reported to me that the methods recommended by the university were difficult to apply in

real classrooms, they also articulated to me that they did not want to teach using the teacher-centered approach. Therefore, in the interviews, the pre-service teachers tacitly interpreted their own way of teaching as they ‘help’ their pupils understand the content. However, in this study, I observed that the pre-service teachers’ way of teaching is by transmitting content and not by developing the pupils’ thinking (chapter 5).

7.4 The significance of my study

My study is significant for teacher education research in Brunei as it sheds light on the use of subject knowledge by economics pre-service teachers. My research has highlighted the need for further investigation of the economics content that the pre-service teachers learn at the University of Brunei Darussalam and the content that they are going to teach in schools. Furthermore, the way economics and pedagogical knowledge are being taught at the University of Brunei Darussalam needs to be reconsidered. My study has revealed an apparent paradox in the orientations of pre-service teachers towards economics and the teaching of economics. It is also apparent from my findings that remedial action is necessary to improve the quality of economics teaching in Brunei Darussalam.

7.5 My recommendations for practice

7.5.1 There is a need to link theory and practice

The pre-service teachers need to be aware that to think like an economist, they need to analyze, interpret and link economic theory to the social world. The pre-service teachers need to understand that school economics can be made more accessible for learners

through the use of examples, scenarios and even role-play but they need to have sound subject knowledge of economics to effectively employ such teaching approaches.

The pre-service teachers need to develop a synoptic understanding of economics that links content areas of economics together. For example, when they are teaching about economic systems, they need to understand that the economic problem of any economy involves three questions: ‘What is to be produced?’, ‘How will it be produced?’ and ‘Who will get what is produced?’. The pre-service teachers need to know that the market system is based on the demand and supply of products, that is, demand and supply determine prices and prices act as signals to both producers (suppliers) and consumers (who create demand). They also need to know that Brunei is an example of a market economy where there are private and public sectors in the economy and Cuba is a good example of a planned economy existing nowadays. The pre-service teachers need to be aware that their pupils might know about Cuba. Pre-service teachers need to be aware that their pupils can do research using the Internet. Therefore, both teachers and pupils can learn together about how a country such as Cuba plans its economy.

7.5.2 The role of the university in helping the pre-service teachers to teach

The university supervisors and teacher educators need to play their role in helping the pre-service teachers to ‘bridge’ their subject knowledge with the school content. Firstly, the supervisors need to help the pre-service teachers to apply the pedagogy recommended at the university. Secondly, both supervisors and teacher educators need to ‘listen’ to the pre-service teachers’ difficulties in using the approaches and the teaching of content. For

example, teacher educators need to help pre-service teachers to be aware of craft knowledge and the way that they can relate their experience for constructive learning in classrooms. Thirdly, it is conducive if both parties (educators and pre-service teachers) are willing to be reflective about their own practices. For example, in this research, the pre-service teachers' conceptions of the importance of 'low' knowledge compared to 'high' knowledge for teaching school subjects. Finally, university supervisors, teacher educators and subject experts need to help pre-service teachers to progress constructively in their thinking. For example, they need to help pre-service teachers to get 'beyond' economics textbooks and be aware of the social world: the current events in their lives, the news, the Internet and their surroundings can be used as examples in their teaching.

7.5.3 Continuing development of teachers and their supervision in schools

My research suggests that there is a need for continuing development for teachers. My pilot study had shown that even experienced teachers 'regurgitate' their knowledge to their pupils (see Appendix I). During teaching practice, these experienced teachers were likely to be the co-operating teachers for the pre-service teachers in schools. Therefore, there is a need for teachers in schools to be given workshops on content transformation. The workshops could be designed to encourage teachers to be more interactive in their teaching approaches and to encourage teachers to use up-to-date and relevant resources for teaching economics and commerce from local and national media and from the Internet. The workshops could encourage teachers to assist pupils to learn constructively whereby the pupils are helped to relate theory and practice. The workshops could also support teachers to give activities to pupils and encourage teachers to stimulate their

pupils to express and write their thoughts and ideas rather than to 'regurgitate' notes as appears to be the case at present.

7.6 Conclusion

My research demonstrates that the transformation of teachers' thoughts into action is a complex phenomenon. My research highlights the pre-service teachers' conceptions of knowledge ('high' knowledge and 'low' knowledge) and the way their conceptions had influenced classroom practice. In addition, my research reveals that the nature of pre-service teachers' knowledge is fragmented and they lacked the ability to apply their subject and pedagogical knowledge within the context of teaching.

In summary, teachers' subject knowledge links their knowledge and their teaching strategies with their pupils' learning and beliefs. Teachers' subject knowledge includes conceptual knowledge (the facts and concepts taught in secondary schools) that are impacted by their own beliefs and social background. Teachers' subject knowledge includes teachers' knowledge of the structures of a discipline such as their understanding of the history, philosophy and sociology of the discipline. Teachers' subject knowledge involves teachers' content-specific orientation in their discipline, a complex combination of content knowledge, beliefs, and values that have the potential to impact on what and how their pupils learn about the content. Teachers' subject knowledge involves teaching contexts that are complex and embedded which have an impact on teaching practices.

Teachers' subject knowledge is important in teaching as teachers need to comprehend the subject and transform the subject to make it comprehensible to others by 'representing' their knowledge and ideas for students' understanding. Teachers think about what kinds of representations they generate for particular age-ranges, and how to reinforce an idea through the use of different representations. It is important for teachers to prepare, select, adapt and tailor their representation for students' needs.

In initial teacher training, pre-service teachers had difficulties in transforming their subject knowledge into practice because they reflected their own past experience of schooling and life. Although pre-service teachers were taught specific content teaching methods, they had difficulties in applying theoretical understanding in classroom practice. They perceived that the 'vision' of good teaching (the preparation that the pre-service teachers did while they were at university) was inappropriate to be practiced in schools. They then interpreted their informal knowledge such as their past experiences in teaching. Hence, their knowledge was often tacit and highly situated as they were not aware that they were teaching the same way as they were taught themselves.

In order for pre-service teachers to progress, the ability to reflect is the key for them to improve their learning and teaching. Pre-service teachers' development in reflective practice is facilitated by their mentors and teacher educators. Therefore, facilitators are important in pre-service teachers' reflection of their practice. Yet, this research has shown that the role of co-operating teachers as mentors and supervisors as teacher educators were lacking in pre-service teachers' lives. Pre-service teachers were not

challenged critically to evaluate their thinking and their practice by facilitators and teacher educators. The 'features' of reflective practice by pre-service teachers were not apparent in this research.

Pre-service teachers' knowledge of their pupils had not yet developed so they struggled with finding ways to explain teaching content to them. Pre-service teachers seldom encouraged pupils to use their own language to develop their understanding and express their ideas. They assumed that a poor command of English meant that the pupils knew little economics. In addition, the pre-service teachers' knowledge of economics curriculum was weak and their objectives for teaching economics were not focused. Their primary concerns were focused on survival and management of the classroom.

So the question remains: 'What can be the vision for effective economics education in Brunei?'. Firstly, there is the issue of recruiting teachers who have a passion for teaching and teaching their subject well. My research indicated that the motivation of wanting to become a teacher was financial and status-driven rather than pedagogical in nature. Teachers who strive for excellence should aspire to develop the pedagogical content knowledge which refers to knowledge about learning and teaching a particular subject (Shulman, 1987). For example, he (ibid) argues that a good teacher will ask questions, such as, 'How do students learn Economics? 'What are the key steps in the development of an understanding of economics?' And how do different ways of teaching economics affect what students learn?'. Meanwhile, Davies & Brant (2007) have suggested that there are two fruitful ways of developing responses to these questions: by focusing on

variation in students' understanding rather than asking 'Do they understand it or not?'; and by identifying threshold concepts that act as critical gateways in students' appreciation of how to think as a practitioner of the subject. In addition, teachers might aim to achieve collaborations within and between schools as teachers working together in such groups have a long history of generating powerful innovations that help not only their school but the wider teaching community (Davies & Brant, 2007). Therefore, teaching will be more than delivering curriculum and more of developing understanding if teachers regard schools as places where something new is created (Shulman, 1987).

"Teachers who retain an appetite for their own learning provide powerful role models for their students. Teachers who aim to help their subject to develop also model an attitude of creating something better for the future that lies at the heart of education and that can really make a difference. In the face of inspections, regulations, implementing policies and dealing with the latest batch of workaday problems, retaining a belief that teaching is more than just a job is crucial to feeling that it is all worthwhile".

(Davies & Brant, 2007, p. 200)

Secondly, in terms of teacher preparation, pre-service teachers need to be provided with specific opportunities to translate their knowledge. Economics pre-service teachers learning to teach during their teaching practice, face for the first time the need for reflection on the use of their own content knowledge in the classroom. Since the application of knowledge seems to be an essential step in the formation of a subject matter structure that can be explicitly used in practice, the importance of such opportunities cannot be over emphasized (Shulman, 1987). Therefore, specific

opportunities for subject knowledge formulation may need to be provided, as well as utilizing subject knowledge themes that may most appropriately guide teaching (for example, process skills, nature of economics, and interactions between economics and society) and may need to be fostered through consistent reinforcement in teaching methods courses (Gess-Newsome and Ledermen, 1993), in this case, methods courses for teaching economics.

Thirdly, in order to facilitate the transition from 'survival teaching' to 'reflective teaching', pre-service teachers may need to be given repeated opportunities to reflect on the effectiveness of their practice through formal feedback and a critical examination of their teaching goals and the best means to achieve those goals. As previously noted in Fuller (1970), classroom management concerns often overwhelm pre-service teachers, therefore, teaching process that may effectively translate one's conceptions of subject knowledge and teaching goals may not be able to occur until management and classroom routines are mastered.

Hence, the pre-service teachers' subject knowledge is largely developed through prior experiences in their past school learning and activities. Their notions of 'high' and 'low' levels of knowledge influence the way they teach the subject in school. This division between 'high' and 'low' levels of knowledge will remain unless the pre-service teachers recognize that they need to relate new ideas to the way they have constructed their understanding of the world. Only if the pre-service teachers can interpret and relate their subject knowledge to the real world, can they develop thoughtfulness among their pupils

instead of interpreting economics and commerce as merely information that needs to be remembered and recalled. Therefore, returning to models of teacher preparation that integrate the learning of pedagogical knowledge and subject knowledge may create a culture that facilitates better co-operation between the parties responsible for teacher preparation. Schools of education and teacher education programmes, by themselves, cannot develop teachers of the quality demanded by the reforms. University economics courses are as much a part of a teacher's preparation as subject-specific pedagogy courses. Teacher preparation programmes need to work with the pre-service teachers' subject knowledge that they possess upon entrance into these programmes.

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Appendices

Appendix 1 (A1): Pilot Study

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PILOT STUDY

This chapter reviews the rationale of this pilot study, the overview of the instruments used in this pilot study, the ethical consideration in this study, the results from the piloted instruments, the review of the instruments and the adjusted focus of my study as a result from this pilot study.

4.1 Rationale

The purpose for this pilot study is to test the research instruments. This chapter describes the instruments that have been piloted with teachers. The findings from this pilot study have helped me to reflect on the instruments used for my study. This has helped develop my research design as discussed in the previous methodology chapter.

4.2 Overview

The instruments used in this pilot study are semi-structured interviews and lesson observations. I constructed a semi-structured post-lesson interview (see figure 1). The post-interview sought to discover (a) how the teachers reflected on his or her way of representing his or her knowledge to his or her students, and (b) the teachers' experience of teaching economics or commerce in secondary schools. The post-interview was also based upon the observation schedule that I had used. Lesson observations sought to discover the teacher's way of representing his or her knowledge in the classroom.

After the lesson:

- 1) How do you feel about the lesson?
- 2) Were you pleased with the way the lesson went?
- 3) Did it work out the way you had expected?
- 4) Tell me about the thinking behind the planning of the whole lesson.
- 5) If you were doing the lesson again, is there anything you would change?
- 6) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?
- 7) Do you think you have learned anything new about teaching from the lesson?
- 8) Do you think that your students have understood what you have taught just now? How do you know?
- 9) Have the students enjoyed learning the topic? How do you know?

Your lessons in general.

- 10) How do you usually introduce a new concept?
- 11) For all your lessons, do you ask your students to give their own examples and explanations in your lesson?
- 12) Where do you get your teaching materials from? Sources? Do you use the Internet?
- 13) How useful is the knowledge that you have learned from the university in your teaching?
- 14) What do you think is your main problem in teaching commerce? Do you use bilingual?

Figure 4: INTERVIEW QUESTIONS (PILOT STUDY)

4.3 Ethics

In this pilot study, I have taken steps to ensure all reasonable ethics considerations have been taken into account; I have followed the BERA guidelines. At first, I had to ensure that approval from the ministry of education in Brunei were successful. Then, I sought the permission from the principal of the school chosen for this pilot study. Next, I sought the permission from the Head of department of economics and commerce. Finally, I approached two teachers to participate in this pilot study. I told the teachers that the purpose of this pilot study was to test my research instruments. I assured them that the purpose of my research instruments was not to criticize them but for me to learn about knowledge transformation in teaching economics and commerce. I also assured them that I would keep their names confidential.

The identities of the school and the teachers' names have been kept anonymous – I have used pseudonyms in this pilot study, and indeed later in this thesis.

4.4 The implementation of the instruments

This pilot study was undertaken in August 2004 in Brunei. The instruments were piloted upon two secondary school teachers: one was an economics teacher and the other was a commerce teacher. The teachers involved were Sarah and Saiful, both were teaching at the same secondary school in Brunei. Sarah was teaching economics and Saiful was teaching commerce. Both teachers were teaching secondary four students (14-15 year olds). In this study, the teachers were asked to describe their conception of economics or commerce, their conception of teaching economics or commerce, their way of representing their knowledge for teaching economics or commerce, and their views of sources for their knowledge representation. Since English was the teachers' second language, during the interviews I spoke to them in Malay as well as English.

4.4.1 Sarah

Sarah was in her early thirties. She was a teacher of economics and principle of accounts. She had been teaching these two subjects for three years to 14-16 year old students. Her educational background was that she had a degree in management studies and a PGCE in economics education.

4.4.1.1 Lesson Observation: Teaching 'Multinational'

During her lesson that day, Sarah was teaching economics to form four students (14-15 year olds). The class was in a computer room and there were 10 girls in her class. The theme of the lesson was business

organisation. But that day, Sarah was only going to focus on the sub-theme which is multinationals. In the last lesson, she had assigned the students in-pairs the task of finding the advantages and disadvantages of multinational companies as homework. Hence, that day, Sarah expected all the students had their answers ready to be discussed later in the lesson.

In the first part of the lesson, Sarah reviewed the last lesson which was 'business organisation'. She used questions to elicit answers from the students. When the students gave the answers, she then wrote them on the whiteboard using a concept map. Sarah's questions were directed to the whole class.

Sarah: Our topic is on business organisation, we have covered how many?

Students: four

Sarah: The first type?

Students: Sole trader

Sarah: After sole trader?

Students: partnership

Sarah: After partnership?

Students: Joint stock company

Sarah: There are 2 types, what are they?

Students: private and public

Sarah: And in our last lesson, we have done?

Students: multinationals

Sarah: And I ask you to do your homework, on what?

Students: Advantages and disadvantages

Sarah illustrated their answers in the form of concept map on the board to remind the students of the 4 types of business organisation. The concept map was also used to introduce the theme of the lesson that day which was 'multinationals'.

Sarah then asked a particular student the definition of multinationals. The student gave the definition. Sarah repeated again the definition by reading it from the transparency that she had prepared earlier. The transparency consisted of the definition of multinationals, features of multinationals and examples of multinationals. The students were passive during teacher's explanation.

Sara then moved to the main aim of the lesson which was the advantages and disadvantages of multinationals. The first activity was a discussion with the students. Sarah expected all her students to have prepared the list of advantages and disadvantages of multinationals for the lesson (she had given this task as homework in which the students had to discuss answers in-pairs). Sarah then selected each pair group and asked one of them to write one sentence answer on the board. She had divided the board into two sections: advantages on one side and disadvantages on the other side. The students had to wait for their turns to write their answers on the board. The writing of answers took 20 minutes. Then, Sarah read each answer that was written on the board and asked particular students to explain their answers. This session took another twenty minutes.

The second activity was for Sarah to produce a newspaper article on a transparency. The article was about Honda Motor Company in Slovakia. She informed the students that the company was an example of multinationals. In this activity, Sarah highlighted the advantages of Honda motor company.

Sarah: The factory produced 200 000 kia cars. So mass production.

Sarah: They hire 2400 workers. So they provide jobs to the host countries.

Sarah spent five minutes explaining this article. During this activity, the students were all passive and were expected to listen to the teacher's explanation. Sarah was in a hurry to move on to her next activity.

The third activity was for Sarah to produce a transparency of the list of advantages and disadvantages of multinationals. But now, she listed her own version of the advantages and disadvantages. In this activity, she read all the points to the students while the students listened to Sarah's explanation. The use of acronyms was highlighted after each list. For example, Sarah taught the students that the acronym for the advantages of multinationals was 'SALE C²D'.

At the end of the lesson, Sarah concluded the lesson by asking the students the acronyms for the advantages and disadvantages. Sarah expected the students to memorise the acronyms so that they could remember the advantages and disadvantages of multinationals.

4.4.1.2 Post-lesson interview

A transcript of Sarah's comments can be found in Appendix 2. Here, I offer a synthesis of her responses:

Views on her lesson

The topic multinationals taught that day was new to Sarah. Although she has had 3 years experience of teaching economics, it was actually the first time for her to teach multinationals that day.

“It was new for me to teach multinationals. Because usually, the teaching practice teachers will take over this topic and also, before this, I only teach Form 5 topics”.

When asked about her lesson, Sarah was pleased. She said that she had achieved the aims and everything went according to her plan. For Sarah, the main purpose for the lesson was to teach ‘definition, advantages and disadvantages of multinational’. She was satisfied with the lesson as the students were able to write down their points. Her lesson went well and hence, she would not change anything about the lesson.

She informed that she didn't learn anything new from the lesson. This was because the answers that the students have produced such as the list of advantages and disadvantages were the same as what she had prepared in the transparencies. However, Sarah acknowledged that the students could find all the answers in the textbook.

Views of teaching economics in general

Sarah commented that economics taught at the university was not that useful for her teaching. She did not find them useful because the content was not the same as the secondary economics syllabus. For her, many of the content in the secondary economic syllabus were new and she had to learn them again by herself. However, Sarah commented that the subject method classes she learned at the university were more useful for her as a teacher.

“The methods classes are very useful. I learned how to use the concept maps. And I taught my students how to use them.”

For lesson introduction, Sarah usually introduced topics by using explanation. This was because the students were unfamiliar with many economics terms.

“Depends on what topic I am teaching. Like demand and supply, I have to explain first because they don't know the meanings”.

For lesson conclusion, Sarah always concluded her lessons by asking the students to memorise the acronyms as noted in the observation above. She argued that acronyms would help the students remember the points in their learning of economics.

“After each topic, I like to teach the students to use acronyms. It is easy for students to remember”.

For resources, Sarah only used one textbook to teach economics. But the students were not given this textbook by the school. Therefore for notes, Sara had to use transparencies in all her lessons. Students only used the textbook given by the school for references.

Other than the textbook, Sarah liked to use newspaper cuttings in her lessons. She found them very useful to illustrate economics concepts in the real world.

“Basically, I just use newspaper cuttings. So whatever that I can find relating with economics, I just cut them out and put them in a file. So if I’m teaching that topic, I just take them out later.”

On teaching approaches, Sarah informed that she often used a variety of teaching approaches to teach different topics, for example, she often described everyday examples that relate to pupils’ lives, use real objects like poster and photograph and concept maps. However, in teaching, she did not use ICT such as the Internet, PowerPoint, at all in her lessons.

“If I use the Internet, it takes up my time...”

Finally, Sarah anticipated that students would find the language difficult, but she would not resort to bilingual teaching for economics. She commented that the main problem in teaching economics is that the students often had problems with structured questions.

“Students don’t understand the questions and if they answer, the answers will be out of context. They can answer easy straightforward questions but not difficult questions like structured.”

4.4.1.3 Summary (Sarah)

Sarah’s goal for her lesson was for her students to understand the advantages and disadvantages of multinationals. All her activities focused upon transmitting the theories of the advantages and disadvantages of multinationals to her students. She informed that her students have understood the lesson because of the answers they had written on the board and they were able to remember the acronyms. All the answers written were from the textbook.

4.4.2 Saiful

Saiful is in his early thirties. He was teaching commercial studies or commerce and principle of accounts to Form 4 and Form 5 secondary students (14-16 year olds). He did a degree in BA Education where his major subject was economics and his minor subject was mathematics. After his degree, he became a teacher and he had been teaching economics, commercial studies and principle of accounts for 6 years. At the time of this pilot study, Saiful was teaching commerce to form 4 students (14-15 year olds). There were fourteen girls in his class. It was a one hour lesson and it was his last lesson that day. The theme of the lesson was ‘Banking’. The aim of the lesson was for the students to differentiate between bank overdraft and bank loan.

4.4.2.1 Lesson Observation: Teaching ‘Banking’

Saiful wanted to start the lesson with quizzes. But the students did not like the idea of the teacher doing quizzes with them. So instead of quizzes, Saiful told the students that they would discuss the last lesson by referring to the textbook together. The students agreed with this idea. The discussion then involved the teacher asking questions while the students responded by reading the answers from the textbook. The questions asked for recap were such as ‘What are the functions of commercial bank?’, ‘What are the 3 types of services?’, and ‘What is the difference between the services?’. When Saiful was asking all these questions, he was holding the textbook in his hands. He was forming the questions from the sentences in the textbook. The students responded easily by reading the answers from the text.

Saiful then moved to the main aim of the lesson that day, that is, the differences between bank overdraft and bank loan. First, Saiful showed the differences between bank overdraft and bank loan in the short run. Saiful showed the calculation of how to get the interest incurred for both bank overdraft and bank loan on the board. After he finished, he then asked the students,

Saiful: Now, can you compare which interest charge is higher?

Students: Bank loan

Saiful: Therefore, we prove that in the short run, interest charge in bank loan is higher than bank overdraft.

Second, Saiful illustrated the differences of interest incurred for both bank overdraft and bank loan in the long run. Saiful showed the calculations on the board. After he finished calculating the interest charge for both bank loan and bank overdraft, he then asked the whole class:

Saiful: So which interest charge is higher in the long run?

Students: Bank overdraft

The explanation above took 30 minutes. Afterwards, Saiful continued the lesson according to the textbook. He sometimes asked one student to read one or two paragraph/s to the whole class. The students would comply with the instruction. But when he asked questions to the whole class related to the paragraph, there would be no response from the students. Saiful would then have to give the answers. For example:

Saiful: Do you know what you mean by guarantee for loan?

Student: (Silence)

Saiful: We need *penjamin* (guarantor). Example, if basic salary below 1000 dollars, we need a back-up.. *penjamin* but if your basic salary above 2000, no need for guarantee

Saiful also illustrated an example on the board about the purpose period and rate repayment for bank loan. He drew a table to show that in the shorter the period; the lower the interest rate and the higher the repayment. He then asked the students whether they have understood or not. They all replied, 'Yes'. This was the only response that the students gave to the teacher's questions:

Saiful: have you seen foreign exchange services before?

Students: Yes

Saiful: Last time, in Baiduri bank, did you see it? The screen?

Students: Yes...Yes..

Saiful: \$1RM, how much Brunei money? US\$1, how much? That's the exchange rate

At the end of the lesson, Saiful gave five minutes for the students to read the textbook before he asked the questions for recap. Five minutes later, the students must closed their textbook and all had to stand up. They could only sit down if they raised their hands and be chosen by the teacher to answer the question correctly. When he asked the question about the difference between bank overdraft and bank loan, the students did not respond to this question. Then he told the students to think for awhile and then moved on to other questions. But until towards the end, he did not get back to this question.

4.4.2.2 Post-lesson interview

A transcript of Saiful's comments can be found in Appendix 2. Here, I offer a synthesis of his responses:

Views on his lesson

Saiful planned his lesson according to the curriculum syllabus. For planning, he relied heavily on the textbook which follows the syllabus.

"The textbook is most useful for most of the topics. We cannot divert from the textbooks because of the curriculum. For most theories, they are from the textbook for the exams. As you know.. exam-oriented."

Saiful informed that he liked to teach the topic 'banking' as he had a one year experience of working in a bank after his A' levels. Therefore, besides using the content from the textbook, he liked to share his experience with his students in the lesson.

Saiful was pleased with the lesson as it went according to plan. He explained that since the students had recently visited a commercial bank, he expected them to be able to relate their experience with their learning in the class.

"That topic (banking) was also related to their visit to the bank recently, 2nd August. During the visit, the students were briefed by the officer. The tour to the retail section was relevant as students can see the transaction, cheque, and how to withdraw money. But some students have already experience of going to the bank because their parents brought them there."

Saiful admitted that he relied heavily on the textbook during the lesson. But he informed that if he was given the AVA (audio visual aids) room to teach 'banking', he could show interesting pictures on the

screen projector. Saiful believed that he could motivate the students to learn with the help of technology such as the powerpoint.

Views of teaching commerce in general

Saiful's conception of teaching the subject commerce was that it was easier than teaching economics.

"Compared with economics, I prefer commerce. Commerce is more related to real life. But with economics, it is more theoretical".

When introducing a lesson, Saiful informed that he usually introduced a new topic by asking simple questions. For example, if the topic was insurance, he liked to ask to the whole class question such as 'Have you heard of insurance?'. He liked to know the basic knowledge that the students had of the topic.

As for teaching resources, Saiful believed the importance of textbooks as teaching resources. This was because the textbooks followed the curriculum guidelines. However, he also sometimes used the Internet as a teaching resource.

"I use the Internet. It helps me a lot for my powerpoint presentation. I can get pictures form the Internet and also information. But mostly, I use the textbook for teaching".

Saiful further explained that he felt confident in teaching if he represented his subject knowledge with the help of technologies. For example, he could show pictures using the power point. Hence, he informed that computer availability influenced his way of teaching with the classes.

"I teach both form 4 and form 5. The difference is that with form 5, all rooms have OHP (over-head projector) and I can use the AVA (audio visual aid) room with them. I can use the powerpoint in the AVA room. But with form 4 classes, I teach mostly using only textbook. It is difficult for me to teach using IT with form 4".

The availability of OHP and computers affected the way Saiful assigned tasks for his students.

He would assign his form 5 students (15-16 year olds) projects that allow the students to be creative and do presentations using the technologies. Saiful expected more effort from his form 5 students than from his form 4 students (14-15 year olds). Compared to his form 4 students, Saiful only used a textbook to explain and teach the lesson. He felt that he could do more with the form 4 students if only he was given the AVA (audio visual aids) room.

"Sometimes I ask form five students to do presentation in the class in groups for different topics.

They have to collect the materials themselves and use the Internet. They are able to do presentation using the powerpoint. They are very creative."

The knowledge that Saiful found useful for his teaching was his experience when he was working in a bank. He also acknowledged that the knowledge that he gained at the university had helped him a lot in his teaching.

"My experience in banking helps me a lot and from UBD, I learned such as how to motivate students which is useful. I can combine them together. I found them very useful".

Saiful informed that the main problem in teaching commerce was language. Therefore, he had to use bilingual (Malay and English) with the students in the class as a solution to make his students understand the content.

"The main problem is language. For your info, commerce is for art students only. Here, there are two classes with 15-20 students in each class. For many students, they don't understand English. That is why I have to use bilingual. Usually, if their English marks are not good, their commerce marks will not be good as well. They can think in *Malay* (first language) but they cannot write in English (second language). Actually they know. They have ideas but they cannot say it in English. This is the problem. I always ask them to just write their ideas even if their grammar is not correct".

4.4.2.3 Summary (Saiful)

In the lesson observation, Saiful was observed teaching his students in a didactic style. He relied heavily on the textbook and the use of explanation was high. Saiful's explanation was mostly in the first language

(Malay) and less in English. His students were passive and they would read passages from the textbook when asked by Saiful. His lesson was heavily influenced with the aim to cover as much content as possible. After the lesson, Saiful explained that the reason he was teaching in a didactic style was due to the context of the classroom and the group of students. He commented that he would have taught differently with older students because the environment of the class would be different. For example, he would give projects to older students and he would use the powerpoint as a resource for his teaching. He commented that his past experience working in the bank had helped him a lot in teaching the topic 'banking'. He could talk more about the topic and he was confident in his knowledge. He informed that the students' fieldtrip to the bank that was made recently would help his students to understand more about banking. Saiful explained that he had to use bilingual in his teaching because he wanted his students to understand the lesson.

4.5 Review of instruments

As already stated, the purpose for this pilot study was to test research instruments. The post-interview sought to discover (a) how the teachers reflect on their way of representing their knowledge to their students, and (b) the teachers' experience of teaching economics or commerce in secondary schools. The lesson observation sought to discover the teachers' way of representing their knowledge in the classroom.

Overall, the instruments above have resulted the following:

- 1) the lesson observation had shown that:
 - (a) Sarah repeatedly emphasized the lists of advantages and disadvantages of multinationals. The repeated explanation by Sarah regarding the lists was very noticeable in the lesson. She focused on representing the knowledge from the textbook even in the 'discussion' with students. She used acronyms to represent the lists which she expected the students to memorise.
 - (b) Saiful was transmitting the knowledge from the textbook to the students. He used high explanation and illustrated many calculations. While he was explaining, the students were very passive in his lesson. Malay sentences were very much used in the lesson.
- 2) the post-interview had indicated that:
 - (a) Sarah was satisfied with her lesson because she perceived that she had achieved her lesson aim; the students were able to write the advantages and disadvantages of multinationals. In general, she commented that the economics knowledge gained at the university was not that useful in her teaching. But she informed me that the methods for teaching learned at the university were useful and helpful in her teaching. For example, Sarah liked to apply different kinds of teaching strategies in her lessons, used different kinds of resources and used concept maps. She also emphasized on the use of acronyms which had helped to represent the theories. She used English to represent economics in the class not bilingual.
 - (b) Saiful was also satisfied with his lesson; he perceived that his lesson went according to plan. However, Saiful admitted that he had relied heavily on the textbook; he commented that he would have conducted the lesson differently if he had use of an AVA room. He was happy with the topic (banking) since this was related to the students' recent school visit to the bank. In general, he liked to teach commerce better than teaching economics: commerce was easier than economics. He found the knowledge gained at the university useful for his teaching. The economics courses and the education courses were both important. For him, textbooks were the most important resources but he also liked to use the internet as his resources. He claimed that the problem of teaching commerce was representing the knowledge in English. He argued that students found difficulties in understanding English, hence, he used bilingual in his teaching.
 - (c) the major source for Sarah's and Saiful's knowledge was the textbook. Besides textbooks, for Sarah, the use of newspaper cuttings helped to relate economics theories with the real world and for Saiful, his past experience working at the bank had given him confidence in his knowledge of banking.

In general, the pilot study managed to test the instruments, however, there were some drawbacks. The interview questions were not focussed enough to examine the relationship of teachers' subject knowledge and the way they use that knowledge in teaching. The interview questions used in this pilot study only discovered the way the teacher taught economics or commerce in one lesson. The interview questions were not focussed in discovering the teachers' conceptions of economics, the way they want to teach economics or commerce and their conceptions of using their specialist subject knowledge in teaching the school subjects. Therefore, the interview questions need to be developed further. This will be discussed in the next section.

The instruments were not administered to pre-service teachers. Therefore, the instruments only discovered the way existing teachers use their knowledge in a situational context. The instruments serve their purposes, however, they only illuminate the way experienced teachers use their knowledge in a lesson and not the experience of pre-service teachers undergoing their teaching experience during the teaching practice period. The instruments should be focussing on pre-service teachers' conceptions. However, there were reasons for not administering the pilot study to pre-service teachers during the teaching practice. The first reason was the aim of the pilot study; the purpose was to test the instruments. The second reason was the time constraint; the time for administering the pilot instruments did not coincide with the teaching practice period. Therefore, the pre-service teachers were not teaching during the duration of the pilot study.

Finally, the instruments used in the pilot study did not really seek out to discover my main research question:

How do the pre-service teachers use their specialist subject knowledge when they are teaching economics or commerce in their secondary schools in Brunei?

4.6 Adjusted focus

In this section, I describe how I have developed the instruments used in this pilot study in order to answer my main research question above. Before that, I have developed my main research question into three operational questions:

- 1) What is the nature of the relationship between a pre-service teacher's conception of economics or commerce and how they want to teach economics or commerce?
- 2) How do the pre-service teachers teach economics or commerce in practice?
- 3) What are the conceptions of pre-service teachers in using their specialist subject knowledge when teaching economics or commerce?

The first operational question involves interviewing the pre-service teachers during the earliest stage during teaching practice. The earliest stage in this research refers to the first two weeks of teaching practice. This is the period where the pre-service teachers have just started their teaching practice. The early two weeks are usually for orienting themselves in getting to know the new school, teachers, pupils and the subjects to be taught. Subjects given to the pre-service teachers are dependent on the school. It is the usual case for economics pre-service teachers to be given other subjects than economics to teach. However, this research is only focussed on these two school subjects: economics and commerce. The relationship between the pre-service teachers' conception of economics and the way they want to teach economics or commerce is sought through the interviews. First, the pre-service teachers have to talk about their experience of studying economics and their conceptions of economics. Secondly, the pre-service teachers are asked about their role as subject teachers. Thirdly, the pre-service teachers are asked to discuss about their university courses and other influences that will have affected their way of teaching. The interview questions have been listed previously in figure 1.

The second operational question involves interviews and lesson observation. Some of the instruments have been tested in the pilot study. The interviews are developed and divided into two parts (see figure 2). The first part of the interview is carried out before the pre-service teachers teach the lesson. The interview questions asked the pre-service teachers' lesson preparation and their aims for the lesson. The second part of the interview is carried out after the lesson. The interview questions asked the pre-service teachers to articulate upon the lesson taught. On the whole, these interviews combine with the data from the lesson observation reflect the way pre-service teachers teach economics or commerce in a situational context.

The third operational question involves interviews as instruments. These interviews are carried out after the teaching practice (see figure 3). The purpose is to discover the conceptions of pre-service teachers in using their specialist subject knowledge, that is, economics, to teach the school subjects: economics or commerce. The interview questions ask the pre-service teachers to describe in general their experience of teaching the lessons during the teaching practice. The interview questions also ask them to describe their learning experience as economics pre-service teachers.

All the developed interview questions shown in all the figures (Figure 1, 2, and 3) were piloted before the main data collection for my study. The aim was to make sure that the questions were comprehensible for pre-service teachers. The questions were piloted to a new economics teacher who had been teaching economics and commerce for eight months. The transcripts from the interview are shown in appendix 4.

4.7 Summary

In summary, the pilot study had tested the earlier instruments planned for research. The interview before the lesson had discovered (a) how the teachers planned to represent the knowledge taught, and (b) the sources for that representation of knowledge. The post-interview had discovered (a) how the teachers reflected on their way of representing their knowledge to their students. The lesson observation had discovered the teachers' way of representing their knowledge in the classroom. However, the piloted instruments only discovered the way of teaching a topic in a particular context. As a result, the pilot study had helped me to adjust the focus of my study. My research question became more focussed by subdividing it into three sub-questions. The interview questions were developed in order to discover the conceptions of subject knowledge and the experience of teaching the subject knowledge in secondary schools in Brunei.

Appendix 2 (A2): Interview Questions

STAGE ONE

Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

First I want to talk about the study of Economics as a discipline.

1. Can you tell me about your background in economics?
Tell me also about your undergraduate courses: Favourite and least favourite.
2. What do you feel are your strengths in economics? What do you feel are your weakness in economics?
3. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?
4. Who was your best and worst economics teacher you ever had? Tell me about them. [Probe for their way of teaching economics]

Now I like to talk to you as an economics teacher

5. What made you decide to become an economics teacher? [Probe for both reasons for teaching and reasons for teaching economics]
6. Now, that you are an economics teacher or commerce teacher, what are your goals for your students?
7. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students? [probe for economics knowledge and the way of teaching]
8. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you used? Are you familiar with the topics and books? Have you read them before? How are the students in your classes?

Now I would like to talk to you as a pre-service teacher of economics/ commerce

9. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]
10. What other experiences that you have had that have affected how you think about teaching economics/ commerce?

STAGE TWO

Interview 2: Teaching a Unit

2.1 Now, I like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

- 1) How do you prepare your lesson?
- 2) Do you have to simplify the topic for teaching?
[Probe for their ways of interpreting and analyzing the topic]
- 3) How do you structure your lesson?
[Probe for the methods/techniques used to make the lesson more explicit to their students]
- 4) Where did you get your resources for the topic?
[Probe for other resources other than textbooks]
- 5) What are your aims in the lesson?
[Probe: What do you want to achieve?]

2.2 Now, I want to talk to you about how you taught just now (after lesson observation)

- 6) How do you feel about the lesson?
- 7) Were you pleased with the way the lesson went? Did it work out the way you had expected?
- 8) If you are doing the lesson again, is there anything you would like to change?
- 9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?
- 10) Do you think you have learned anything new about teaching from the lesson?
- 11) Do you think that your students have understood what you have taught just now? How do you know?
- 12) Have the students enjoyed learning the topic? How do you know?
- 13) Is it easy or difficult in teaching the topic? [Probe for reasons]

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

- 1) What was your favourite or least favourite topic to teach? Why?
- 2) What was your favourite resource?
- 3) What was the best lesson that you had taught? Why?
- 4) How did you prepare to teach topics that you haven't studied?
- 5) Did you relate local examples in your lessons? How?
(Probe: Did you relate to your students' experience?)
- 6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand?

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

- 7) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]
- 8) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]
- 9) What else did you learn from your teaching practice? [probe for the role of schools as community]
- 10) Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]
- 11) What other experiences that you have had that have affected how you think about teaching economics/commerce?
- 12) Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?
- 13) Finally, from your point of view, tell me what does it mean to learn economics?

Salmah
Economics

INTERVIEW QUESTIONS FOR PRE-SERVICE TEACHERS

STAGE ONE

Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

1.1 View of economics/commerce

First I want to talk about the study of Economics as a discipline.

1. Can you tell me about your background in economics?
I only start economics as my major, minor accounting.
Tell me also about your undergraduate courses: Favourite and least favourite.
My favourite will be those from sbhie, all about learning and teaching and I like all to study deep about economics. No least favourite. I like everything.
2. What do you feel are your strengths in economics? What do you feel are your weakness in economics?
My strengths should be something that needs me to understand. My weakness is the memorising like asean economics, I need to know the place, the goods, exports, imports. I am more like understanding like labour economics, micro economics, macro economics.
3. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?
To become an economists, they are alert of lots of things. Macam budgeting, they know them. And news in countries, they know about knowledgable about economics.
4. Who was your best and worst economics teacher you ever had? Tell me about them. [probe for their way of teaching economics]

My favourite one is the new one. She asked our opinions and so we r like frens. And then maybe because shes young. And her way of teaching is applicable to us.

1.2 View of economics teacher

Now I like to talk to you as an economics teacher

5. What made you decide to become an economics teacher? [probe for both reasons for teaching and reasons for teaching economics]

First, it was my ambition to become a teacher. I took economics because a level, I took business studies.

6. Now, that you are an economics teacher or commerce teacher, what are your goals for your students?
My goal was for them to pass exams first. And second one, pass exams, go to ubd, and get a job. And I want to see them in the future, become businessman, kira knowledgable lah. they make use of economics lah.

7. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students?
[probe for economics knowledge and the way of teaching]

Some parts require memorising (economics). Because its not happened like economic system and the law of diminishing return. So how am I going to apply that one. So theres no example for that one lah. economics need more writing. Sometimes students don't like to write, So that's the problem lah.

I don't have problems with language because my students are bright.

8. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you used? Are you familiar with the topics and books? Have you read them before?
How are the students in your classes?

I taught 2B. commerce. Clever students. I taught 4b. economics. Clever students lah. form 2, commerce compulsory. And 4b, economics and history, options. The topics I taught law of diminishing return, economic system, cost and production, division of labour. Commerce, include banking, macam cheque, types of accounts, advertising. Luckily commerce is common sense like advertising so I think its ok, although I have to read again. Fro commerce, I use the brown one. For economics, I use hashim ali.

1.3 View of pre-service teacher

Now I like to talk to you as a pre-service teacher of economics/ commerce

9. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

The Mot is helpful lah, but only sometimes.

10. What other experiences that you have had that have affected how you think about teaching economics/commerce?

other frens, we just change opinions sajalah. Ko mengajar cana, and then we just share saja ideas and maybe in future, I will just apply that in teaching economics.

STAGE TWO

Interview 2: Teaching a Unit

Stage 2

2.1 View of economics

How useful is the knowledge that u have learned from the university in your teaching?

What I learnt from FBEPs, some of the courses are not relevant to what we are going to do in the future. For example, we tend to revise before our TP. But Islamic economy, that we learnt is not applicable at all. The topic is too broad. And we tend to forget the low level economics knowledge. But the low one is the one that is applicable in this school. In MOT, it is more into how to learn not into content. But we are only given economics syllabus here in this school, not in MOT. MOT in a good way is that the lecturer tell us how to teach this, how to teach that. If you are thinking why I am not suitable to teach, I think I should blame the university. The university is tough. Meaning that they don't have one specific course if you want to be a teacher like study about demand and supply, things that we are going to teach the secondary students, things that we are going to teach.

2.2 View of topic taught

2.3 View of how they want to teach

2.1 Now, I like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

1) How do you prepare your lesson?

I prepare today's lesson by myself. Today's lesson I try to be imaginative. Try to make the students involve. So instead of direct explanation, I try to do group work so they can talk and present. The topic for today is which economic system do they think is the best? It's a kind of recap from the previous lesson. Actually from the previous teacher they said that they usually give direct explanation or discussion but I change it because I want to be more creative and I want students' involvement so I do group work.

2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

Yes I have. I am using the textbook by Hashim Ali and the other black book, I forgot his name about the economic system. Both are O-level textbooks. But I don't think students have the black book. So I have to simplify and write my own notes

3) How do you structure your lesson?

[Probe for the methods/techniques used to make the lesson more explicit to their students]

First of all, there is the introduction and then I allocate the students into groups. Before that I need to tell them the basic information, not to make so much noise and then after that they have to work in groups. They will try to give me some points and then they will present. After they present, everything will be so clear. I will recap back again so that the objective will be more clear.

4) Where did you get your resources for the topic?

[Probe for other resources other than textbooks]

The resources like the notes, I get from my previous friends when they were students. because I didn't take economics during my secondary school so I borrowed their notes. I also extract the content from the textbooks as I mentioned earlier. I don't share with my other friends in this school and other schools during TP. In this school, I am the only one here teaching economics. I also use newspaper cuttings and case study for teaching. I only just prepared them.

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

I want the students to decide which economic system is the best with a good explanation.

2.4 The way they teach in class

Sallimah, smja

9.29 tch: class register

9.30 tch: tell students to group themselves into group A, B, and C

9.31 tch: 'how many economics systems are there?'

stds: three, planned, market and mixed

9.32 tch: what I would like to do is for each of you to defend or argue your own preference system, its like you have to tell me the characteristics and tell me why you think it's the best. Understand? So what I would like you to do, I would like you to write one point here at the manila card. You just write the main points. And you have to defend why you think it is the best. Understand?

9.33 So who like planned economy?

9.33 Group A? yes, ok group A will do planned economy?

group C? mixed. Ok group B have no choice, you to prove that market economy is the best.

9.34 Students in a group of 4.

9.34 tch: go round the tables. And ask students, what is the characteristics, the advantages. But first you have to tell me why it is the best.

Tch: don't refer to your notes.

- 9.35 Tch: you can also find the disadvantages of your other groups. Ok. If group c says market economy is the best then you try to find the disadvantages and try to argue with them
- 9.37 Tch have to go round the table to remind students of what to do.
Tch has to give examples to group c about what market system is.
- 9.38 stds discuss the answers
- 9.41 tch: 'ok, 10 more mins'
- 9.56: tch: tell the students to stop doing their work
- 9.58: 2 stds in front of the class holding a manila card explaining about planned economy, characteristics and advantages
- 10.00: one student gave an example of disadvantages of planned economy
- 10.03: tch: so are you sure that your system is the best? Give one best point
std: it is controlled by the government
tch; so do you think it is good?
Std: yes
Tch: ok. So students, they think that planned economy is the best since it is controlled by the government
- 10.04: tch: so now, can we have group B
two students went to the board
students read the characteristics and the advantages of market economic system
tch: so why do you think it is the best?
Std: read the points 'there is no state interference so consumers are very powerful'
- 10.06 Tch: ok, other groups, any other arguments?
Other Stds: read out the points for disadvantages of market economic system.
- 10.09 Tch: do you still think it is the best?
Std: yes it is
- 10.10 tch: ok group C
Two students read out the characteristics and advantages of mixed economy from the manila card
- 10.11 tch; ok any of you want to change your mind about which economic systems is the best from the presentation?
One Std: yes
Tch: Which one?
Std: mixed economy.
- 10.20 Tch then recap the characteristics and advantages of the economic system using questionings.
- 10.29 the lesson ended

2.5 Their reflection of teaching

2.2 Now, I want to talk to you about how you taught just now (after lesson observation)

6) How do you feel about the lesson?

I am quite happy with the lesson. It was a good lesson and the students were cooperative and did the activity. The most important thing was that they understood the previous lesson and they showed their understanding in their presentation.

7) Were you pleased with the way the lesson went? Did it work out the way you had expected?

Yes, I am very pleased with the lesson. And it did work out. It was the first time I did group activity and it was my own idea for the activity.

8) If you are doing the lesson again, is there anything you would like to change?

It depends but so far I think this lesson was the best so if there is anything I will try as much as possible to make it more teamwork if possible.

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

Not really. I am quite happy with the lesson today. It was really working, I think and the students were quite cooperative and also it showed that they actually understood the previous lesson. For example, the plain economy, they showed it by presenting it in front of me and they were able to defend their own economic system meaning that they truly understand what the topic was all about.

10) Do you think you have learned anything new about teaching from the lesson?

Yes. I think it is really good to have a teamwork and also it is good to stimulate their thinking. When we stimulate their thinking, they tend to think, they tend to challenge me and they give their own ideas and opinions.

11) Do you think that your students have understood what you have taught just now? How do you know?

I think yes. Because they present it in front of me so I know that they understood. I also went round the class and watched how they worked. And I saw that they were interacting with their friends discussing and arguing, which was good.

12) Have the students enjoyed learning the topic? How do you know?

Most of them yes. Because I could see from their faces. They were really eager to say something. A few of them, I don't know. Because few of them were silent. That is the problem with the students. They are shy.

How do you usually introduce a new concept or topic?

Usually what I do is I start with a case study. Sometimes I do start with story telling. For Form 2 commerce, storytelling, but if it is not applicable because sometimes they are slow or active. So I just do it directly like 'ok, so our topic for today is banking'. So I tell them what banking is. For economics, what I usually do is stimulate their thinking. For example, about the market system, so I just ask do you have any other economy in general? So they will start to say something. When I mentioned case study just now, it is more like storytelling. I haven't started with form 4 yet but I had started with form 2 already.

For all your lessons do u ask your students to give their own examples n explanation?

For form 4 yes. I give the chance to give examples and explanation but before their answers were not so good. So I tend to give them notes for examples and explanation. Some of the students are just not confident in giving their own answers.

So where do u get your teaching materials from? Sources? Do u use the internet?

Yes, from the textbook, from the internet, from the previous teacher, from previous notes. The internet, the website I use is biz-ed, or I will just browse under yahoo. The biz-ed is helpful for form four. I use the multiple choice questions, but the notes are not that helpful. So I just use biz-ed for assessment task, where I just click on the learning materials. I also extract questions from the past exam papers, where I will re-type the questions again. So for resources, I am using 3 textbooks, also from my cooperating teacher and from previous notes from my friends.

How useful is the knowledge that u have learned from the university in your teaching?

What I learnt from FBEPS, some of the courses are not relevant to what we are going to do in the future. For example, we tend to revise before our TP. But Islamic economy, that we learnt is not applicable at all. The topic is too broad. And we tend to forget the low level economics knowledge. But the low one is the one that is applicable in this school. In MOT, it is more into how to learn not into content. But we are only given economics syllabus here in this school, not in MOT. MOT in a good way is that the lecturer tell us how to teach this, how to teach that. If you are thinking why I am not suitable to teach, I think I should blame the university. The university is tough. Meaning that they don't have one specific course if you want to be a teacher like study about demand and supply, things that we are going to teach the secondary students, things that we are going to teach.

What do you think is your main problem in teaching?

For economics, my problem is that students are not scared of me. They see me as a friend. In form 4, I don't really have a problem because they treat me as a friend. Its ok. For form 2, the problem is that they are too noisy because they are still children. They don't really listen to my explanation. Form 4, I have no problem in language but off course sometimes the students speak malay to me. But I don't really encourage them to speak Malay. So they have to speak English. Except for some terms, I use Malay language. Form 2 commerce, I use both. Half-half. The students usually speak malay. If I talk in English, they don't listen. But if I talk malay, then they tend to listen.

STAGE THREE

Stage 3

3.1 View of economics

7) Finally, from your point of view, tell me what does it mean to learn economics?

To learn economics is to find a job with the qualification. People can see that I am an economics teacher. Helpful in a way to set up a business, we know profitable or not. also with economics, we know other countries. Its really interesting. With economics, the conversation becomes interesting, so I feel good about economics lah.

3.2 View of topics taught

1) What was your favourite or least favourite topic to teach? Why?

I don't like to teach commerce because it involves accounting and its difficult to find resources and activities in commerce than economics. For economics, factor of production and diminishing of return. For factors of production, I make an activity macam I asked them to list factors that they need to have in order to create something for example to make a table, what they should have? And then automatically they knowlah lah, macam they know they need labour, they need building, and then suddenly I revealed all the things without me explaining. So I really like that kind of topics like self discovery. Least favourite topic is on market system macam planned economy, mixed economy. Its difficult to teach them because its not happened in the real world, and somehow it is more like memorising macam what is the characteristics of planned, market, and then its difficult because its not happening in the real world.

3.4 View of relating economics knowledge to teaching

8) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Honestly, some related. But at ubd, the knowledge is too high like labour economics. And then when I go to the school, I find that its low knowledge. I find it easy to understand. I have to recall. But I have to read again lah. I am familiar with economics content because I teach tuition classes during 3rd year ubd. So ok lah. luckily commerce is easy to understand, its practical and common sense. ubd economics is helpful because we are doing degrees but for teaching, I have to forget about it and concentrate on the basic economics.

3.5 View of school economics or commerce

9) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Honestly, some related. But at ubd, the knowledge is too high like labour economics. And then when I go to the school, I find that its low knowledge. I find it easy to understand. I have to recall. But I have to read again lah. I am familiar with economics content because I teach tuition classes during 3rd year ubd. So ok lah. luckily commerce is easy to understand, its practical and common sense. ubd economics is helpful because we are doing degrees but for teaching, I have to forget about it and concentrate on the basic economics.

Interview 3: Conceptions of using subject knowledge to teach

3.3 View of learning to teach economics/commerce

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

I don't like to teach commerce because it involves accounting and its difficult to find resources and activities in commerce than economics. For economics, factor of production and diminishing of return. For factors of production, I make an activity macam I asked them to list factors that they need to have in order to create something for example to make a table, what they should have? And then automatically they knowlah lah, macam they know they need labour, they need building, and then suddenly I revealed all the things without me explaining. So I really like that kind of topics like self discovery. Least favourite topic is on market system macam planned economy, mixed economy. Its difficult to teach them because its not happened in the real world, and somehow it is more like memorising macam what is the characteristics of planned, market, and then its difficult because its not happening in the real world.

2) What was your favourite resource?

Textbook lah. the second one is the internet. But textbook is helpful lah. I like the hashim ali. For internet, kira extra knowledge, for resources lah.

3) What was the best lesson that you had taught? Why?

Best lesson should be the factors of production. Its like I don't have to talk a lot. I group them into four. Each group ada 5 orang. I give them one production. Macam one group, ur production is table, ur production is hairdresser, something like that. So I asked them to list down what they need to make the production possible. And then suddenly, they are able lah, hairdresser, they need steamer, they are able to reveal things by themselves. And they are able to do their assessment. By the end of the class, I give them mcq, and they were able to answer them.

4) How did you prepare to teach topics that you haven't studied?

Economic system. I asked help from my ct. I asked notes and everything, but offcourse, I didn't cover the whole content so I'm not fully knowledgeable with the content.

5) Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

I give them example like entrepreneur in Brunei like Qawi. In commerce, maybe a bit, like dishonoured cheque, I show them the cheque itself. In economics, I show them pictures of factors of production. I bring lots of pictures for them to see. And I relate to the students experience lah.

6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand?

First, from time to time, I asked students, do u understand? And then at the end of the lesson, I asked them to do classwork, and then they do homework. If I find out that they are having a problem, what I do, if it's a small group only, I will call the individual students during class. If one whole class, they don't understand, I have to repeat lah. for example the topic, cost of production, macam variable costs, law of diminishing return.

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

10) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Honestly, some related. But at ubd, the knowledge is too high like labour economics. And then when I go to the school, I find that its low knowledge. I find it easy to understand. I have to recall. But I have to read again lah. I am familiar with economics content because I teach tuition classes during 3rd year ubd. So ok lah. luckily commerce is easy to understand, its practical and common sense. ubd economics is helpful because we are doing degrees but for teaching, I have to forget about it and concentrate on the basic economics.

11) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

My frens helping jua. Helping each other. Tapi ada jua macam spoon feeding jua lah with cooperating teacher but not all the time. My supervisors quite helpful jua with the comments. My lecturer is also helpful dr keith wood. And then I change notes with peers. I also get help with other teachers in the school. I asked dr keith about the strategies how to teach. I asked about factors of production. That was his ideas. But some of his ideas are also not applicable macam market economy, try to give country, the name of country to them, and let them differentiate the different situation of the countries. Such as try to think about cuba, they don't even know about cuba. So some his ideas not applicable to Brunei students, because Brunei students are not that bright unlike other countries and they are shy, so that's the problem. I asked him before I start teaching practice and during tp. Supervisors only comment the way of teaching not really content.

12) What else did you learn from your teaching practice? [probe for the role of schools and community]

Kalau to become a good teacher, the students themselves. I try to change my attitude and I learn from teachers themselves, and I have to be self dependent. In terms of economics teacher, I'm not fully knowledgeable. I think I know but actually I don't know, something like that. I think my knowledge is enough but actually its not. for example, for factors of production, like land is for building, and when they asked questions, I get stuck because at ubd, we are taught the higher level of knowledge not this one.

13) Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

Introduction to education and teaching helps to be an effective teacher. Psychology helps me how to treat students. Its really helpful. I like sociology of school, it tells us different students, different cultures, different schools. So I get respond from students like kurang ajar, but I have to get the background and their culture, such as broken family.

Mot economics only 40percent lah. the lecturer is good. But the strategies that he wants us to do is not applicable. Macam my frens after the lesson, they just forget it, because not applicable, what can we do. So we just pull our own way. I don't know whether its good or not, I don't know.

For example, during our presentations, we have to teach our peer kan. So everything we did, he didn't like, eventhough its good already, like my fren jacynta, she's very good, like self discovery. So he wants something for Bruneian to do. Like elasticity of demand, its difficult to teach right? so what he wants us to do macam make the students understand how they respond to each increase to price but its difficult bah, even explaining the meaning of elasticity of demand, udah durang menguap, so how am I going to explain by themselves. So that's difficult lah. And also, we don't know what he really wants. We thought like suka ia ni activity, and then when we do activity, he would say what is your objective, what can u see from that. I know he is good but very demanding. That was for peer teaching.

So in real life, its difficult lah.

Everything is connected bah, like mot kata don't explain, explain makes students bored, so in sociology, they encourage self discovery. So we applied lah.

14) What other experiences that you have had that have affected how you think about teaching economics/commerce?

In a way, when I do the law of diminishing returns, I try to do the case study by myself. But my supervisor kata I should follow casestudies from the textbooks and the internet.

15) Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?

I think they should learn the syllabus on economics itself. And maybe during mot, why don't the presentation should be based on the syllabus and topic. So kami pun boleh nampak whats the syllabus and topic. Because what we have last time during mot was the topic was the same. Everyone will come up di depan with the same topic. So only that one lah, should be topic and syllabus. If that is to be provided last time ah, I think it should be helpful, we can prepare and ask dr keith how to teach the topic. But he didn't show last time, so I think that was the only problem.

16) Finally, from your point of view, tell me what does it mean to learn economics?

To learn economics is to find a job with the qualification. People can see that I am an economics teacher. Helpful in a way to set up a business, we know profitable or not. also with economics, we know other countries. Its really interesting. With economics, the conversation becomes interesting, so I feel good about economics lah.

Appendix 5 (A5): Lesson Plan Salmah

Lesson Plan

Name of pre-service teacher: Salmah

Subject: Economics

Topic: Mixed Economy

Class: Form 4

No of students: 17

Date: 24th February 2005

Time: 9.00- 10.00 am

Objectives:

At the end of the lesson, students should be able to:

1. Recall back their knowledge on the characteristics of market, planned, and mixed economy.
2. Evaluate the advantages and disadvantages of the three economies.
3. Decide on the best economy
4. Provide reasons for their preference economy system.

Lesson procedures:

DIAGRAM REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES



Reference:

Dan Moynihan (1999). *Economics A Complete Course*. London: Oxford University Press.

Appendix 6 (A6): Transcripts Nadia

Nadia

Economics

INTERVIEW QUESTIONS FOR PRE-SERVICE TEACHERS

STAGE ONE

Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

1.1 View of economics/commerce

First I want to talk about the study of Economics as a discipline.

2. Can you tell me about your background in economics?

I didn't take commerce, I didn't take economics form 4 and form 5. a level, I took mob, sociology and maths. So at ubd, I took economics. I don't have any choices.

Tell me also about your undergraduate courses: Favourite and least favourite.

Favourite topic was macro and micro. I don't like asean economics, because kami nda gunakan time mengajar atu.

11. What do you feel are your strengths in economics? What do you feel are your weakness in economics?

I'm good in macro and micro. I don't like asean economics pasal banyak membaca.

12. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?

If someone is an expert in economics, they know everything about economics lah. I think they know really better about economics, macam aku basic saja.

13. Who was your best and worst economics teacher you ever had? Tell me about them. [probe for their way of teaching economics]

Kalau a level, mob cigu dulu. cara ia explain atu really kami dapat faham. She gave activities and I got the debate idea from her. Because kami dulu buat debate about money. Whether we need money or we don't money. I take some activities lah. Ia banyak give examples lah. she really make us understandlah.

The worst teacher was the one after her, he just explain without knowing our understanding.

1.2 View of economics teacher

Now I like to talk to you as an economics teacher

14. What made you decide to become an economics teacher? [probe for both reasons for teaching and reasons for teaching economics]

I don't have any choices in becoming a teacher. But my parents motivate me to take teaching because of the future of getting a job. I became an economics teacher kira nada choice lah, pasal my background in mob.

15. Now, that you are an economics teacher or commerce teacher, what are your goals for your students?

I really want them to understand the topic. They can link the real situation with the topic that I teach.

16. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students?

[probe for economics knowledge and the way of teaching]

Students rasa boring lah pasal the teacher before me just give them handouts and cakap sajalah. So no activity, jadinya nada motivate durang lah. and durang nda faham jua.

Aku ngajar form 4, durang nada basic knowledge of economics. And then, their English. They need to read and explain in English. And they find it difficult to explain. I asked them to use their own words so that they can remember easily and give their own examples. So far, they find economics ada yang easy macam economic system tapi ada jua yang payah lah.

17. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you use? Are you familiar with the topics and books? Have you read them before?

How are the students in your classes?

Only 1 class. 19 students. Co-ed students. Selected students. Economics compulsory for all students. Topic2 yang ku ajar, market system, law of diminishing return, factors of production, division of labour, business organisation. Books that I used the green one, anderton book. I used hashim ali (the Singapore book). I used my sister's notes jua lah, as my reference.

I am familiar but I need to read again before I teach.

My students quite understand what I teach. And they feel interested because I give them activities.

1.3 View of pre-service teacher

Now I like to talk to you as a pre-service teacher of economics/ commerce

18. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

Actually, what I did waktu mot economics, like variation theory, tapi bila sudah mengajar, difficult for students to do the variation. Paksa I use straight to the point waktu mengajar students. But mot was useful lah for me.

STAGE TWO

2.3 View of how they want to teach

2.1 Now, I like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

1) How do you prepare your lesson?

First I see the scheme of work for today's lesson. Then I have to find the resources. Resources are not provided by the cooperating teacher. So I have to find the information for the lessons myself. I have to find from the textbook. My cooperating lend me the book. She lend me two books, the green one and red white color. But I bought books by Hashim Ali. But the book by hashim Ali is not really complete. I also borrowed the black one from my cooperating teacher. Then from the textbooks, I make the handouts for the students.

2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

Yeah. I don't fully follow the textbook. I have to make the handouts easy for the students to understand. But first I will do the lesson plan first because I need to know the objective and aims of the lesson. Then I will do the handouts. My students only have the green textbook (Anderton). But they will only use the notes from the teacher, because the textbook is not really helping them. They need important points, and we have to emphasize and explain to them. If they only use the textbook, it will too complicated for them.

3) How do you structure your lesson?

[Probe for the methods/techniques used to make the lesson more explicit to their students]

At first, the introduction, I will recall back the previous lesson. I will do questionings. So usually, I will tell the class to stand up, and select their names and ask them the question. Then I introduce the new topic. Sometimes if I have a new topic, it is better to use a case study. By using the case study, we can them to discover what the topic is all about and then introduce the topic content. For the closure of the lesson, I will use multiple choice questions. That one I found from the internet. I usually use yahoo, and then, I will type the topic. The last lesson was about the types of production so today I just want them to discover themselves how the production process.

4) Where did you get your resources for the topic?

[Probe for other resources other than textbooks]

Mostly from my cooperating teacher. But I also use my sister's notes since she did economics before. She took economics when she was in form 4. I didn't take any economics before the university. I also get some information from the internet.

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

I just want them to understand the characteristics of each of the production for example land. From the activity, I want them to understand the chain of production. So my aim for the activity is that they can link their understanding with the topic.

2.4 The way they teach in class

Nadia, 21/2.05, tutong

738 Tch:ok I want to recall last lesson. Can you all stand up?

Tch: first question, what is meant by production?

Std:

739 Tch: second qs, what are the three types of production?

Std: primary,secondary, and tertiary production.

Tch: is that correct?

Std: yes

Tch: what is meant by primary production?

740 std:

tch: primary pro means the production of raw materials for example?

Std: farming, mining

Tch recaps last lesson about production by asking questions. Student will only sit down if they answer correctly

747 tch still doing recaps. And three students were still standing.

750 tch asked questions about market economy

- 750 tch ask stds to groups themselves in pairs.
- 752 tch read the statement in the handout to the students (for activity)
- 755 tch: I'll give you ten mins to match the description with pictures
stds in pairs need to match pictures with sentences (the production of cds)
stds discuss and try to match pictures.
Tch has to go explain in detail the sentences to students. tch has to go from one pair to another due to lots of questions
- There were about 10 pairs of students
- 802 tch: ok class, how many types of production? Primary, secondary and tertiary. So when u see the pictures, which one is primary production
std: the oil
tch: ok
tch: write the number
tch: for example, E then M
- 810 tch: summarise the answers together with the whole class
- 812 tch: all of u got it correct?
stds: yes
- tch: write down all the answers on the board
tch repeat the explanation again
- 816 tch: do you think it is difficult the activity?
Stds: no
Tch distribute notes to students
- 817 tch: can u all tell me what it means by production?
Stds have to answer the question by filling in the blanks
Tch guide the students for the correct answer:
'Production refers to the making of goods and the production of services in order to satisfy people's wants.'
Tch explains the diagram in handout
- 820 tch: how many factors of production?
Stds: 4
Tch: what are they?
Stds: land, labour, capital and entrepreneur
- 821 tch read out the handout about characteristic of land
- 822 tch: can you give me example of producing tyre?
Std: rubber
- 823 tch: ok now labour. Tch explains more of labour
- 824 tch: explains the handout. Use malay frequently, to explain words
tch: do you know what it means by efficiency?
Stds: no
Tch: kecekapan
Tch: utilisation means penggunaan
- 828 tch still reads the handouts. Explain efficiency of labour
tch: working conditions. U know what it is?
Stds: no
Tch: explains in malay 'contoh keselasaan bekerja, mana kamu mau, bekerja di dalam bilik aircon atau di luar?
- Stds: di bilik
Tch: aa..iatah tu. Working conditions
- 831 tch: motivation macam kamu kena bagi bonus 500.
Tch: reasonable working hours and holidays. Mau jua kamu holiday kan? Nda jua semestinya kerja selalu.
- 832 tch: capital is the money used and also the tools, the machinery.
Tch continue reading the handout
- 842 lesson ends abruptly due to the bell. Tch did not have time to finish the lesson and give activity

2.5 Their reflection of teaching

2.2 Now, I want to talk to you about how you taught just now (after lesson observation)

6) How do you feel about the lesson?

I am disappointed that I cannot cover the whole content. Because most of the time, I spent in the discussion for the activity. It was a long discussion.

7) Were you pleased with the way the lesson went? Did it work out the way you had expected?

Well, it was ok. For the activity, I didn't expect them they can do well because sometimes some activity, they usually take a long time to think. But for this activity, they easily understand the content.

My cooperating teacher advised me after he observed me in the last lesson to use a case study before explaining to students. So I got the idea that it is better for me to do the activity before I proceed to explain to them.

8) If you are doing the lesson again, is there anything you would like to change?

Maybe I will add more of factors of production. I think its better to let them think more. So for example, I let them just discover themselves how to produce a thing using the factors of production. But just now, I just ask them to match pictures for the production of CDs. Maybe I should have let them discover by themselves how to produce the CDs.

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

About the students, they are always talking to each other especially those sitting at he back row. So if I find them talking, I always ask them question. So that they are aware that they should be listening to me.

10) Do you think you have learned anything new about teaching from the lesson?

It was new for me to do the pair activity. Before this, I did discussion but always like 4 to 5 people in a group and I found that it is better for me to do more people in a group. It takes time when only 2 people. When they are in groups, I found them to be discussing and brainstorming. So next time, I prefer them doing in groups.

11) Do you think that your students have understood what you have taught just now? How do you know?

My aim was for the students to develop an understanding of the topic. From what I saw, their understanding is not that deep but at least they get the idea like the situation of the factors of production. They were ok when I ask them. Just now I asked two students and they were able to give me explanation. It's just that I don't have time to ask them all. To explain, what I mean is that I want them to recall. I always recall back when I finish the topic. Recall back what they have learnt but just now, I didn't have the time. So it is difficult for me to say whether they have understood or not. Usually, I always asked them questions to recall back without them referring to the book or handout, to know whether they understand or not. This is the first time, I haven't got the chance. Maybe because the content is more today since I have to cover Wednesday's lesson. Wednesday is a holiday. And then they are starting their monthly test this first march. So yeah, that's why I had to squeeze many in one lesson. I only have 2 lesson in a week. And the Wednesday which is a holiday is a double period.

12) Have the students enjoyed learning the topic? How do you know?

Yeah. Because they were responding to me throughout the activity.

Do you think that the student enjoyed learning the topic? How do you know?

Yeah, because they responded to my activity just now. Because in the previous lesson, they found the activity difficult. It was a discovery activity where the students have to discover the advantages and disadvantages of a certain concept. They found it difficult and so they were not enjoying themselves. Unlike today, when I gave just description and matching pictures, they gave a good response. So maybe I think it is too complicated for them to do discovery activity.

13) How do you usually introduce a new concept or new topic in a lesson?

Usually, I will introduce any activity for the topic. Then after that, I discuss and I introduce the topic and discuss with them. If I did not find any case study, I just introduce and give them explanation. For the case study, I always use articles based on the topic. Mostly I got the articles from the textbook. So usually, I will always give case study for four persons in a group. For example, when china move to the market related to the topic of plain economy. So I just want them to think of the advantages and disadvantages of plain economy. The article actually explains the planned economy which is china and the article was saying that they move to the market economy because they think that the plan economy is not good for their economy. So that was the whole idea. The students were able to do the activity.

So for all ur lessons, do u ask your students to give their own examples and explanation in your lesson?

Yes usually. For example, I will explain the point, like the advantages of market economy, the responsibility the consumer want. And then I ask some students what do you understand by the responsibility the consumer want? Can you explain to me? Can you give me examples? They gave their answers but they will use Malay. I don't mind them

using malay as long as they understand the content. I found that they students don't know how to explain but they really understand.

Where do u get ur materials from? Sources? Do you use the internet?

Yeah the internet, the textbook. The internet, I search googles for the topic.

So how useful is the knowledge that u have learned from the university in your teaching?

Very useful because I only took MOB during A-levels. So it was not enough for me to get the idea of economics. At UBD, the course covers all economics topic. So I think it is useful. For MOT economics, it is really useful, because it helps us to get ideas how to teach.

For MOT1, we did peer teaching in a group. At first, in a group of 2 persons. For MOT2, we did variation theory. But I found here like when I try using the variation theory, it is difficult. I cannot use the variation theory.

I: What do u mean by variation theory?

W: Variation umm... variation atu I... kira for example... um..

W: Yeah related to the economic for example the supply and demand, so

W: Elasticity atu, so how's the variation lah kira umm... mcm kalau if the supply change but the demand does not change

W: Then the demand change, the supply changes

W: But I found here mcm I try to use that umm... that theory... the variation theory. Tapi belum lagi lah. Belum ada kalau anu mostly, I stick to the economic. I think I cannot use the variation theory

W: The effect of the supply eh the effect of price in eh the effect of total revenue when a price change. So we when kalau the price change atu kami showing umm... price and eh anu... no... supply and demand for price in quantity

W: We have to do in pairs

I: Ohh ok. So u have to teach to peers lah

W: Ahh... They give ah, eh she give ah, berapa minit ah? She give us 20minutes.

I: Oh

W: 10minutes for each person lah

I: Oh ok

W: We explain them umm... using jua relevant structure

I: Mmmhmm

W: Relevant structure kah tu? Using apa, anu jua case study jua lah

I: Ahh

W: We do the case study ourselves lah. We did not discuss. Kami buat ah. Relevant to the topic

I: Mmm

W: And then umm... kira kami bagi2 lah ia under variation kami bebagi2 anu umm... kira peer teaching attachment

W: Yea yeah. Iatah variation theory atu mcm I try to use the variation theory pulang

I: Mmmhmm

W: Tapi when I find here, it is difficult for them lah. Even for us mcm I ask my friend kan. Durang pun, it is also difficult for them to apa membuat the variation theory atu for their own... atukan mcm kami pun it takes time for us. I think 2wks baru tah kami banar2 really... anu mcm payah wah variation theory atu.

I: Oh ok

W: Tapi kalau simple one for example mcm activity kadang2 mcm introducing firm apa atu kan

I: Mmm... so I think u learn all activities from MOT1.

W: Yeah MOT1 lah

W: Kalau MOT2 Atu I think it is complicated for them lah

What do u think is the main problem in teaching economic? Do u use bilingual?

Oh yeah. I have to use bilingual. My first teaching here, I actually speak all English. I didn't use bilingual but the students were quiet. They didn't ask questions. So when I asked they why? They told me that they prefer me to speak in malay so that they can understand. So that is why first, I give them example, I explain them in English then I have to explain them in Malay. So I have to translate English to Malay. It is like they find difficulty to understand if I only use English. So language is the main problem.

So far, resources are ok. I can get from the internet or textbook. Its just that the students are sometimes difficult to motivate. I can't get their interest in economics. Because they perceive economics as difficult because they were taught by the subject teacher. And they lost their interest. That is why, it is difficult to get their interest

back. The subject teacher before me was teaching them for 2 weeks before giving this class to me. The subject teacher did the introduction to economics. Since then, the students think economics is difficult.

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

I want you to tell me about your experience from your teaching practice.

Stage 3

3.1 View of economics

17) Finally, from your point of view, tell me what does it mean to learn economics?

We learn about everything, the environment. Banyaklah yang dipelajari. Mostly, its about business and the surrounding, how the economy works, macamana organisation atu function, macam about the company.

3.2 View of topics taught

1) What was your favourite or least favourite topic to teach? Why?

Firstly, my favourite topic ah, mm..economic system. Including all planning, market, mixed economy. It is easy to teach. Definition, advantages, disadvantages and easy for students to understand.

The least favourite topic is the division of labour. Macam they find it more complicated. I have to explain them using activities and also they cannot link the activities with the topic. Ada confusing lah. they cannot get the objective of the activities. I did two activities. First activity, durang buat container, using paper. And I divide themselves into four groups. 1st group, kira 2 persons, then other group, 4 persons and then other group, mikin banyak, mikin banyak. Tapi kira yang group banyak atu, I ask them to specialise each task. The activities work and the objective of the activities was achieved, but the students didn't understand what the activity was all about. They cannot link with the theory. With market systems, I used case studies. I use articles dari textbook hijau atu (alan anderton) and other textbooks. I asked some questions and they discussed lah. they find the advantages and disadvantages from the article. Kalau planned economy, I give example Brunei example, and sometimes luar negeri jualah. And to make them more understand, I give them resources from the internet, what is the market system all about, etc.

The case studies, they discuss in groups, ku suruh durang one student on the board, without looking at the notes, kira durang punya ideas.

Planned economy using china. I cover in one lesson, pasal I introduce market economy dulu, then planned economy. Mostly, market system, I use case studies saja.

I think 3 major topics saja, business organisation. Sole trader pun pakai case studies. Iski durang mau pakai discussion.

For the division of labour activity, I asked them to think, what happened if only one only do it, and lots of people do it, tapi lambat lah durang befikir.

3.4 View of relating economics knowledge to teaching

18) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Ok jua lah. yang kira academic macam economics di fbeps atu too complicated for me. Nda really specify apa yang kan diajar. What I really find useful is the mot economics. Kira I can use apa yang di ajar atu.

3.5 View of school economics or commerce

19) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Ok jua lah. yang kira academic macam economics di fbeps atu too complicated for me. Nda really specify apa yang kan diajar. What I really find useful is the mot economics. Kira I can use apa yang di ajar atu.

3.3 View of learning to teach economics/commerce

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

Firstly, my favourite topic ah, mm..economic system. Including all planning, market, mixed economy. It is easy to teach. Definition, advantages, disadvantages and easy for students to understand.

The least favourite topic is the division of labour. Macam they find it more complicated. I have to explain them using activities and also they cannot link the activities with the topic. Ada confusing lah. they cannot get the objective of the activities. I did two activities. First activity, durang buat container, using paper. And I divide themselves into four groups. 1st group, kira 2 persons, then other group, 4 persons and then other group, mikin banyak, mikin banyak. Tapi kira yang group banyak atu, I ask them to specialise each task. The activities work and the objective of the activities was achieved, but the students didn't understand what the activity was all about. They cannot link with the theory.

With market systems, I used case studies. I use articles dari textbook hijau itu (alan anderton) and other textbooks. I asked some questions and they discussed lah. they find the advantages and disadvantages from the article. Kalau planned economy, I give example Brunei example, and sometimes luar negeri jualan. And to make them more understand, I give them resources from the internet, what is the market system all about, etc.

The case studies, they discuss in groups, ku suruh durang one student on the board, without looking at the notes, kira durang punya ideas.

Planned economy using china. I cover in one lesson, pasal I introduce market economy dulu, then planned economy. Mostly, market system, I use case studies saja.

I think 3 major topics saja, business organisation. Sole trader pun pakai case studies. Iski durang mau pakai discussion.

For the division of labour activity, I asked them to think, what happened if only one only do it, and lots of people do it, tapi lambat lah durang befikir.

2) What was your favourite resource?

Mostly textbook. Ada jua dari internet, dari search engine. So I just type the topic lah.

3) What was the best lesson that you had taught? Why?

The best lesson was the debate. I give only two days to think ..the topic was division of labour. Kira aku select randomly the group, and select 3 persons as a speaker. They were really interested in it.

4) How did you prepare to teach topics that you haven't studied?

I think mostly I have to read all again. I don't have any basics economics waktu form 5 and form 6. only ubd, baru belajar economics. Aku buat reference jua dari my sister yang mengajar economics, so dari textbook and internet jua. Last time, ct nda berapa helpful, kira aku find themselves.

5) Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

ada jua macam economic system. Planned economy. market economy macam individual macam syarikat. I asked them if they handle the planned economy, macamana durang handle. I ask them what u can think the examples in Brunei like mixed economy. So they give example macam jtb, kan private and plan.

6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand?

Before I start the lesson, I always recall the previous lesson. To know whether the students understand or not. so I asked the questions lah, if they can answer, only then they can sit down. If they cannot answer, I have to explain lagi sekali lah. I haven't given essay. Their problem is English. So I just give them questions lah.

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

20) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Ok jua lah. yang kira academic macam economics di fbeps itu too complicated for me. Nda really specify apa yang kan diajar. What I really find useful is the mot economics. Kira I can use apa yang di ajar itu.

21) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

Awal itu, it was too challenging. We have to be prepared early and resourceful.

Kalau ada yang ku nda faham, adalah peers explainkan tapi most of the time, I have to learn by myself.

Cooperating teacher, no comment lah. my supervisor gives tips on how to get students attention.

22) What else did you learn from your teaching practice? [probe for the role of schools and community]

Schools nada perananlah to motivate me to become an economics teacher. Pasal kira sendiri2 saja lah. other teachers just give tips on teaching saja lah.

23) Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

Methods of teaching memanglah. Developmental psychology adalah. Introduction to teaching ada jualan.

Psychology of teaching and learning. Tapi yang memang useful is mot economics. We did peer teaching, so it was helpful to practice. Before aku teaching practice, balum ku pernah ku mengajar, so from the experience of peer teaching was really helpful.

24) What other experiences that you have had that have affected how you think about teaching economics/commerce?

One of my cousin buka business. Sometimes I use durang punya company itu as an example in my teaching.

25) Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?

the mot 1 and mot2 itu nda enough bah. We did presentations but it was in groups. Kira sekali saja practice itu alom cukup. Kira sekali di mot1 and sekali di mot2. kalau boleh, specific bah, topic by topic apa yang kan diajar. Waktu mot, nda dinyatakan apa topics kan diajar.

26) Finally, from your point of view, tell me what does it mean to learn economics?

We learn about everything, the environment. Banyaklah yang dipelajari. Mostly, its about business and the surrounding, how the economy works, macamana organisation atu function, macam about the company.

Appendix 7 (A7): Lesson Plan Nadia

Lesson Plan

Name of pre-service teacher: Nadia

Date: Monday, 21st February 2005

Time: 7.30am – 8.40am

Class: Form 4

No of students: 19

Topic: Production

Sub-topic: The factors of Production (Contiuation)

Aims:

- To make the students more clear the phenomenon of the factors of production and improves the students' thinking ability through activity.
- To created an awareness that this topic exists in real life situations.

Objectives

By the end of the lesson, students should be able:

- To identify production as any economic activity that satisfies consumer wants.
- To classify and describes the four factors of production
- To explain more details of each of the factors of production.
- To explain correctly on the supply and efficiency of labour.
- To recognize the two types of capital and its importance.
- To define the capital-intensive and labour-intensive in combining the factors of production.

Teaching Aids:

- Questionnaires – Appendix 1
- Activity sheet – appendix 2
- Handouts – appendix 3
- Classifying terms activity sheet- Appendix 4

Assessment

- Discovery activity (Matching pictures with descriptions of the CDs Production)
- Discovery activity (Classifying terms into the correct column)
- Questionnaires (Recalling back the previous lesson)

References:

Dan Moynihan. Economics A complete course, 3rd edition

GF Stanlake, Introductory economics, 4th edition

Parves Azin & Hashim Ali. Modern certificate guides economics for O-level.

Lesson Procedures

Stage	Content	Teachers' activities	Students' activities	Teaching methods & aids
Induction (5 minutes)	1) Recall back the previous lesson about production and factors of production (5 minutes)	Teacher recalls the previous lesson by asking student individually by selecting their names	Responds to the questions	Questioning method Question paper
Development (55 minutes)	1) Pair activity of High power records production (20 minutes)	Teacher asks students to work in pairs to match the pictures to descriptions given (appendix 2)	Students work in pairs and match the pictures with the descriptions	Pair activity Activity sheet
	2) the Production (5 minutes)	Teacher explains to students the meaning of production – just recall	Students listen to explanation and fill	Expository method

		back the previous lesson about production	in the missing words	Handout
	3) The factors of production (20 minutes)	Teacher selects each student to define the term of each of production and then explain the factors of production, land, labour, capital and entrepreneur in more details	Selected students define the term of factors of production and listen to other details of the explanation	Expository method Handout
	4) Combining of factors of production (5 minutes)	Teacher explains how the factors of production are combined, that is through capital-intensive and labour-intensive Teacher asks students to give examples of production of using capital-intensive and labour-intensive	Students listen to the explanation Students give examples of capital-intensive and labour-intensive	Expository method Questioning method Handouts
	Closure (10 minutes)	Teacher will ask students to do classifying terms activity to figure out whether students understand the topic covered if there is enough time, if there is not much time left, it will be done as their homework.	Students do the classifying term activity individually	Classifying term activity Activity sheet.

Assessment: Ask students to complete the classifying terms activity as their homework.

A6 Transcripts of Case 3: Noraini

Noraini
Commerce

INTERVIEW QUESTIONS FOR PRE-SERVICE TEACHERS

STAGE ONE

Stage 1

Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

1.1 View of economics/commerce

First I want to talk about the study of Economics as a discipline.

3. Can you tell me about your background in economics?
Form 1 -3, commerce. Form 4, economics and commercial studies. For A level, I took MOB. University, I took major economics in BA education

Tell me also about your undergraduate courses: Favourite and least favourite.

My favourite was mathematic economics. My least favourite was resource economics. It is more geography, because we have to learn about earth, the use of resources in the world to the economic, for eg, oil. Oil has APEC. U need to know about Saudi. I like mathematical economics because I took maths until A level, so it was easy for me.

19. What do you feel are your strengths in economics? What do you feel are your weakness in economics?
I try to relate and make things work. I try to make it easy for the students to apply whatever they learn, whatever practical things that they can grab. That I can do. My weakness is the theoretical things that there is no way that I can like relate, for example, u give me aggregate demand, aggregate supply, that'll be hard for me to relate that to the students.

20. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?
If they say they know economics, they might say they know everything about economics, ask them about the stock market, business here and there, he might know. U can know anything and everything about economics for eg a teacher or lecturer, he knows economics so well because he has been learning and teaching it years and years.

When u're an expert in economics, maybe he just know one area of economics, for eg, that particular person just know about resource economics or some.

21. Who was your best and worst economics teacher you ever had? Tell me about them. [probe for their way of teaching economics]

Form 1 and form 3, I only got one commerce teacher. She was very strict. She made us know everything and anything in the textbook and whatever answers we give, it has to be perfectly the same in the textbook. So that was difficult and I hated her for that. In form 4, I had a different teacher, she was lenient, all she wanted was our ideas. So that was two different thing, one was a textbook based and the other one was more a thought based. Now as a teacher, I see it should be more of a thought based but because of the curriculum we have to more of a book based. I think that was what my form 1-3 was aiming, the curriculum. So she had no choice to do that. So I think we have no choice either but also to follow the curriculum.

1.2 View of economics teacher

Now I like to talk to you as an economics teacher

22. What made you decide to become an economics teacher? [probe for both reasons for teaching and reasons for teaching economics]

I didn't decide to teach at first. I didn't know that I was quite outspoken, that's what people said. In my high school, I joined the debate team, and it goes on till form 6. and then I could speak, just speak anywhere, anytime. Soo teaching for me was no problem. I did not decide of it. But I have to think of the future. A lot of people say that teaching is a guarantee job. So that made me decide why not. I could speak also. And then, that was it. But once I stepped into teaching, earlier this year, the teaching practice, I enjoyed it. Because my satisfaction was there when my students get good grades, and they did their homework. So it was really satisfying.

23. Now, that you are an economics teacher or commerce teacher, what are your goals for your students? Obviously good grades. But I want them to understand more than that, not really good grades. But I want them to really grasp on what commerce can do for them in the future. I told them again and again, these things are easy to understand because its what u do everyday. Its different from learning geography, history or maths, because commerce is there. We are there.

24. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students? [probe for economics knowledge and the way of teaching]

For the form one, the difficult was because it was a new subject from primary six. There wasn't any commerce or whatever, so the introduction was very vital. Without a proper based, they could just not understand the whole thing. I think what is difficult is that they must know the based before they can go out. In that school, commerce is only given to good classes, so form 1a, form 1b, not the weak ones, so I don't have problem with English.

25. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you used? Are you familiar with the topics and books? Have you read them before? How are the students in your classes?

Form 1B, form 1C, and form 1M. form 1M was form 1A class actually. 1B, I had 11 students. 1C, I had 13 students, and 1M, I had a lot, 27 students. Commerce was option between computer. The topic units, the first topic was the introduction, banking, barter trade, occupation. The book I used was usually the brown book, the blue book, apart from that journals and newspapers. I was familiar with the topics and books.

The small classes were easy to manage because I usually group them. Because they are 11 or 13 of them. So I usually put them in groups closer to the whiteboard and more to the front. But for the 1m, it was a huge class, so I couldn't do anything, they have to sit in their own seat, and I expect them to know, but because they are very good students, they learn fast.

1.3 View of pre-service teacher

Now I like to talk to you as a pre-service teacher of economics/ commerce

26. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

Before I started to teach them, I have these ideas, I prepared lots of aids for the kids, have activities for every class, but, in the end, I did not reach that. I did but not often. I only did it when the topics got hard or at the very beginning of the topic. There was time constraints. students take lots of time, happy hours during the activities. We plan to do 5 mins, they take 15 mins. Overall, we usually need a b plan. Not everything can be as smooth at what we did at shbie, for kids, its difficult. So a lot of things, I changed. I tried not to use my students life because my students life was very teacher centered. She talks, write notes and all we do is copy notes. Not much explanation. Whatever she writes on the whiteboard was already in the textbook, so there was no point. For me, I gave my students handouts. And in that handouts, its just point form. So the point form was quite useless unless

they write something on it. So I say something, I expect them listen and write on their own words, when they do that, I praise them.

27. What other experiences that you have had that have affected how you think about teaching economics/commerce?

STAGE TWO

Interview 2: Teaching a Unit

Stage 2

2.1 View of economics

How useful is the knowledge that u have learned from the university in ur teaching?

In FBEPS, the knowledge is quite broad. Its broad and deep and its not really useful except gives us a little bit of extra information. For MOT, the teaching style varies. At the university, it is quite different, for peer teaching, our colleagues are more willing and cooperate with you. Here, in real classroom, you will have a rough time handling the activity. Today's activity, I got it from my colleagues at the uni. I think a lot of activities I used I take from university and I adjust for my students.

2.2 View of topic taught

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

Alright. It was hard actually for me to explain barter trade. Because they don't apply barter trade here. So the concept was hard, so I had to explain it, I think five times. What is barter trade? The exchange of things. I think they will lose the information. When I said that you can change this can change this and then for the third explanation, I don't think they had paid any attention. But when I said, ok you are going to sit down and do the activity, then they started to say oohh..what was it? Then they started to ask. So I have to emphasize it again and again.

2.3 View of how they want to teach

2.1 Now, I like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

1) How do you prepare your lesson?

My lesson is about barter trade. So I have to look at the previous lesson and this is a new chapter. I will start the lesson with an introduction of barter trade. I will give the definition first to the students. I think the theory is difficult for them so I am doing the definition and the practical activity.

2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

Yeah because the words are very textbook, so I have to make it simple to understand and in the form one style. I simplified the old brown textbook. Some of them the English words are difficult so I try to help the students. I also use the other blue book. I don't get any materials from my cooperating teacher. I have to prepare my own notes so I have to look for textbooks. Simplify them and make my own notes.

3) How do you structure your lesson?

[Probe for the methods/techniques used to make the lesson more explicit to their students]

It depends on the class. Class 1B is a small class. So class management is ok. I think I can handle them. The content, they are quite fast in understanding the content. Compared to my other class, it is a big class. I think it is hard for me, for example, with 1B, I teach 3 sub-topics and the other class, I only teach 2 sub-topics.

4) Where did you get your resources for the topic?

[Probe for other resources other than textbooks]

The ideas are from my colleagues. I talked to my colleagues like how I can make my lesson simpler. My friends from here and other schools. I sometimes look at the internet for games. I just surf for games, no particular website. For each lesson, I usually prepare one week ahead not one month. Because I really have to adjust my lesson, so its always one week. Whatever materials I use today, I prepared them last week.

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

My aim is for students to use practical first and then I do theory by theory so that they can understand better. I give exercises then I ask teach them the theory. If I go on and on using teacher talk, they will not have any idea.

2.4 The way they teach in class

Norain, kilanas, commerce, 19/2/05

215 tch wrote on board Barter Trade an exchange of goods with your goods is known as barter trade

218 tch: allocate students in pairs (6 pairs) and give handouts. Ok I want you take out ur pencil case or any of your personal belongings.

220 tch: ok, look at the instructions and take out any of your personal belongings. U have to try and trade. For example, these two pens are different. And you have to exchange with something that you want from your fren. Any questions? So I want you to exchange four things.

223 stds do the activities in their groups. They have to write their answers on the sheet paper. If partner agrees to exchange, they have to write yes

225 tch has to explain again the instructions. Students seem confused.

226 tch has to repeat instructions for each group and tell them what to do. "if ur partner write, you write, if your partner don't write, you don't write".

228 tch has to explain again about what to write

229 tch wrote on board

what are you selling? What do you want in return?

What did your partner want?

233 tch: finish?

238 tch still waiting for one pair to finish writing because they couldn't seem to agree. And they need to write down something

239 tch: ok, do you have a yes? Do you have a no?

240 tch: I want an example from each of you. So whats the first no?

std told the answer to teacher

tch wrote:

pencil case	black pen rubber	
pencil case	watch	bag
rubber	pencil case	glue
pen	highlighter	calendar
watch	table cloth	watch
pencil	bag	pencil

246 tch: ok why do you say yes? And why no?

248 tch: now people don't want to exchange because of several reasons

now, the problems:

1) find a double coincidence of wants. to find 2 people willing to trade.

2) To agree on the exchange value

251 tch: it is hard to find people to say yes. Ok?

253 3) to honor barter trade agreement

now for example, who goes fishing here? Ok, listen. To honor agreement, two people, farmer and fisherman. This fisherman, say to mr a, farmer, tomorrow can I have 2 chickens, 5 goats and 3 cows. The fisherman to farmer. And then farmer said, ok. Now the farmer will say to fisherman, 1000kg of fish. This is for tomorrow. Then at night, it rain and then morning, rain, farmer goes to mr b, where's my fish. Fisherman says no fish because it was raining. So do you think the fisherman will still get all these goods?

Stds: noo...

256 tch: so no fish, no cow, chickens and goats. So do you think there will be an exchange?

Stds: no

Tch: so to honor an agreement is a promise. Ok?

257 tch: So with these problems, can we resolve?

Stds: no

Tch: yes, with the introduction of money

258 tch: you have the money, and you can buy all these goods. So for next class, I will teach you about money

258 tch: so today we have learnt about?

Stds: barter trade

Tch: so barter trade is an exchange of goods and whatever you have done in your activity is an exchange of goods.

Now barter trade has problems. What are they?

300 Tch wrote problems:

1) to find a double coincidence of wants

tch: what does it mean? To find 2 people to agree

2) to honour a barter agreement

tch: so what about the promise? So fisherman and farmer? So what? What does fisherman want?

Stds: 2 goats, chickens, 5 goats

Tch: so what does the farmer want?

Std: fish

Tch: so what happen? The fisherman couldn't get any fish because of the rain. So the farmer didn't get any fish. So no trade, ok? Understand?

Tch: the third problem what is it?

Wrote: 3) to agree on the exchange value

Tch: for example this book and this pen. Now, who wants to take the book. One. Who wants the pen? Ok a few. If I say, that book is made of gold? (all raise hands). Now if I just put here, do you still want it? Yes. Ok, how much do you think the pen is?

Std: 1.80, 1.50

Tch: so to agree on the exchange value, it is difficult to agree on the value.

3.00 lesson ends

2.5 Their reflection of teaching

2.2 Now, I want to talk to you about how you taught just now (after lesson observation)

6) How do you feel about the lesson?

The lesson went well. It went ok. As I predicted, the trading, the activity which I gave was on time. The timing was ok, and the students do respond to some of my questions. It went alright.

7) Were you pleased with the way the lesson went? Did it work out the way you had expected?

Yeah, I was pleased with the lesson. Everybody participated although there were a few arguments here and there but you know how kids are. So it was alright. So it worked out the way I had expected.

8) If you are doing the lesson again, is there anything you would like to change?

To change? To change, not really, whatever I gave them on that day it was appropriate for the topic.

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

Alright. It was hard actually for me to explain barter trade. Because they don't apply barter trade here. So the concept was hard, so I had to explain it, I think five times. What is barter trade? The exchange of things. I think they will lose the information. When I said that you can change this can change this and then for the third explanation, I don't think they had paid any attention. But when I said, ok you are going to sit down and do the activity, then they started to say oohh..what was it? Then they started to ask. So I have to emphasize it again and again.

10) Do you think you have learned anything new about teaching from the lesson?

Yeah I did because the lesson was more about activity. So I learnt that different students have different values. They are different from each other. So I will use that as part of my teaching, you know, give a definition, one group has a totally different argument with another. So its easy for me to compile.

11) Do you think that your students have understood what you have taught just now? How do you know?

Yeah, I think they did. Because I asked them on a recap session. On barter trade, and then they say yes, the exchange of goods, and I said alright, and they I asked do they agree on this. Some said yes, some said no and then I asked them why and they said different value teacher. Or this is more expensive than this. So they actually got it!

12) Have the students enjoyed learning the topic? How do you know?

Some of them enjoyed, some of them might not. Some of them, maybe it is a new thing to exchange our own things. They now realize that their things are more valuable than others.

13) this is regarding about ur lesson in general. How do u usually introduce a new topic?

Ok first depending on the words. For example, the barter trade. For sure they do not know what barter tradi is because it is new but trade they know. They say it's a business or like that. Right, that's good. Good try. Then I started to explain to them barter is exchange. Once they know the word exchange. I ask them back, 'oh tukar-tukar teacher. Tukar-tukar'. So the word is familiar to them and they understand. that's how I usually start.

Do u usually ask your students to give their own examples and explanation?

Yes, examples when I see appropriate. For example, there's one topic under needs and wants. So I usually ask... 'ok, what do u need?' n then I jot it down because if I were to use my own needs n want, it may not be what they want. So I asked examples from them. I also asked them for meanings and then when they give their own meaning using their own words. I use their words. Its for them to understand, for example one student said this work and another student said another word, I try to link the two words together, that's how I do it.

Where do you get your teaching materials from? Do u use the internet?

Yes, the internet. For teaching materials, sometimes I made my own. I buy books. There are strategies from books that we get from the library. Sometimes they have good games which you can use.

How useful is the knowledge that u have learned from the university in ur teaching?

In FBEPS, the knowledge is quite broad. Its broad and deep and its not really useful except gives us a little bit of extra information. For MOT, the teaching style varies. At the university, it is quite different, for peer teaching, our colleagues are more willing and cooperate with you. Here, in real classroom, you will have a rough time handling the activity. Today's activity, I got it from my colleagues at the uni. I think a lot of activities I used I take from university and I adjust for my students.

What do you think is your main problem in teaching commerce?

Problems is that I do have a lot of talkings. The students do lots of talkings. But I will make sure that the talkings are constructive but since it is a small class, so I can handle it. I will not ask them to communicate with me in Malay. I will make them communicate in English because it's the base language of commerce. I don't have problems with the students since I was given a good class. For slow learners, I usually give extra classes before school starts at 12 in the afternoon. I need them to really understand. If you give the students the textbook and ask them to read, they will not understand. So it is up to us like use our imagination and use the students as well so that both can combine to understand commerce.

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

Stage 3

3.1 View of economics

27) Finally, from your point of view, tell me what does it mean to learn economics?

Actually, learning economics, for me its not the right word. Because economics need to be experienced. Like in business world, between, 2 persons, if one person has a business background as in a level and university and compared with a person who does not have a business background, the person who does business in real, will be better off with the person with theory only. For me, when I try to teach commerce, I want them to feel how business is going on, not just read from a book, coz they might not understand. Some of the topics are difficult but once u get them to do it and think about it, its not hard.

3.2 View of topics taught

1) What was your favourite or least favourite topic to teach? Why?

My favourite topic was on barter trade. At first, it was a totally new concept for the students and then I introduce practical methods first before I start teaching theoretical explanation. Because if I explain it they will not understand as today there is no such thing as barter trade in Brunei.

All the topics I relate to reality and I give real examples for example from newspapers and magazines, so it was alright for the students to understand. So there was no least favourite topic.

3.4 View of relating economics knowledge to teaching

28) Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

The ones at education at shbie was very helpful, because we had to do presentations on imagining that these are my students and preparing teaching aids and everything. But for fbeps, the presentation was more like treating my colleagues as adults who know everything. In fbeps, we just give information, talk..talk.. as if we are giving lectures. But in shbie, we have to try to imagine that these are my students, in shbie, its more related than fbeps. In fbeps its just more like gaining knowledge not practicing what we are supposed to be doing.

3.5 View of school economics or commerce

3.3 View of learning to teach economics/commerce

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

My favourite topic was on barter trade. At first, it was a totally new concept for the students and then I introduce practical methods first before I start teaching theoretical explanation. Because if I explain it they will not understand as today there is no such thing as barter trade in Brunei.

All the topics I relate to reality and I give real examples for example from newspapers and magazines, so it was alright for the students to understand. So there was no least favourite topic.

2) What was your favourite resource?

We have magazines and I have my books at home, like economics books that we used also at ubd. And I have my frens to help me out to give examples and my cooperating teacher was helpful in giving me few resources. The books besides the brown book, I used the blue book, and magazines as well, for example, newsweek, strait times newspapers, and borneo bulletin.

What I did was from the heading itself. I tried to explain the heading so I basically brief the students about the article so that the students know, it is easier.

3) What was the best lesson that you had taught? Why?

The project. I have this project during their school break (holidays). I gave them quite a tough work to help them built their cognitive skills. I break them into groups and I gave them one month prior to the deadline. So two weeks to be done in school before and then two weeks during the school holiday, and once the school opens, they present their project. It was fantastic their project.

I gave them, the topic was occupation. What they have to do is to go out their area, the neighbours, uncles, aunt, find out their job was and break out into categories. There were 20 categories. They did the presentation one by one. Its good for me to train them to speak. They used photos of the different jobs of their uncles, neighbours.

4) How did you prepare to teach topics that you haven't studied?

If not familiar, I usually asked my cooperating teachers and my colleagues to help with the topic, and then I review them and I look into different books. But basically the topics were alright for me.

5) Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

Yes, for example, like characteristics of money, I would ask them first, when u look at money, what do u see, in their own words, so after that I teach them the commerce term. Because they have understood, they just need to know the words.

I usually ask their examples such as import and exports. Easy for them to understand better. They know we export oil, import the things from the shops. I usually ask them where do you think they come from.

6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand?

Everytime I start the lesson, I start bits to bits. I would do a recap. I would ask the students one by one to complete a web. I usually use a web. If the any of the students couldn't understand, I would go to another one. Later I would go to that student so that they can understand the lesson. At the end of the lesson, I would do another recap. And then sometimes, I would do assessment, tests. Usually I do a spot test, but oral spot test. So that they would know whats going on. Written, I usually take these from the textbooks or sometimes from my own words, whether they have understood the lesson or not. homework, not all the time, because I only see them once a week, so I usually gave them a lot of classwork.

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

29) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

In school, I was given form one. So what I m teaching is just surface. The things that we learnt at fbeps are in depth. So any questions from the students, like in depth qs, just a bit, so I know how to answer, so it is an advantage. We have to know more than the students so that help me. So mmm.. I just have to review the topics and sometimes I might drift to really deep, so that was the danger. Because we know a lot but we only have to tell a little bit, so that was the danger. I was familiar with all the topics as well since I've taken commerce before during my secondary years.

30) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

A lot of responsibilities. U need to be patience quite a lot and a lot of hard work. Being a teacher is a 24 hour job. Because I was given several classes, so sometimes my lessons with different classes do not match because the events going on like holidays, sometimes overlap the other, sometimes go fast, sometimes go slow. The responsibility meaning I have to change my lesson plans so that I have to keep pace, so that one class would not be left behind. So my responsibility is to make sure that they are balance together.

My peers were helpful. My cooperating teacher had to teach morning and afternoon. So when I took over her classes in the afternoon, so I saw her seldom. So I have my peers to help me and my background to actually help me. My background like my experience in learning economics, my experience during schools, or my resources to help me out.

31) What else did you learn from your teaching practice? [probe for the role of schools and community]
As a commerce teacher, no. but there were several events, like sports, and parents meeting. That was a new experience because we had to meet the parents. From there, the community expect us to be very very good for the students. I'm teaching form 1 and for them, commerce is new. Parents expect their children to know whats going on in the business world. They thought that when their kids take commerce, that their kids would know business immediately, but I said no. they have to learn the basics first.

32) Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]
The ones at education at shbie was very helpful, because we had to do presentations on imagining that these are my students and preparing teaching aids and everything. But for fbeps, the presentation was more like treating my colleagues as adults who know everything. In fbeps, we just give information, talk..talk.. as if we are giving lectures. But in shbie, we have to try to imagine that these are my students, in shbie, its more related than fbeps. In fbeps its just more like gaining knowledge not practicing what we are supposed to be doing. Our mot, lecturer was strict with us. We didn't know how to present to an imaginary students because we are so used to presenting to an adult. Because he was strict, actually helps us to become better. Prepare more realistic, visual, u know. We are so used to using OHP with words only. But then he grades us down and he explains to us why, and slowly we try to develop that and a lot of us used material things. Things that we can touch u know, then we can relate in schools.

33) What other experiences that you have had that have affected how you think about teaching economics/commerce?
My working experience. I had working experience in banks. So it is more business related. So I'm more familiar with several chapters because I've practiced it and I know what was going on. I worked at standard chartered after a level before university. So there, what I learn in school and what I did at work. In school, it was just theoretical, and when u actually do it, then u understand. I think my experience help me quite a bit.

34) Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?
When I learn economics at university, its very different from teaching it. At university, they try us to prepare for anything and everything. For example, our mot economics, the topics we were given to present were combination of four topics, four different chapters. So we had to compressed and think about what we are going to do it and deal about it. Because the topics were really hard. Because it was so difficult, once we go into teaching, it was easy. Because teaching was just one, one, one, one, it was nothing together. So a...no comment, it was good that we had the difficult task first before we get into easy ones. Because if we start with the easy ones, we will get difficult in the end.

35) Finally, from your point of view, tell me what does it mean to learn economics?
Actually, learning economics, for me its not the right word. Because economics need to be experienced. Like in business world, between, 2 persons, if one person has a business background as in a level and university and compared with a person who does not have a business background, the person who does business in real, will be better off with the person with theory only. For me, when I try to teach commerce, I want them to feel how business is going on, not just read from a book, coz they might not understand. Some of the topics are difficult but once u get them to do it and think about it, its not hard.

Lesson Plan: Noraini

Lesson Plan

Name of Pre-service teacher: **Noraini**

Date: 19th February 2005

Time: 1.30-3.10pm

No of students: 11

Class: Form 1

Topic: Introduction

Sub-topic: Beginning of trade and its difficulties

Aims

- To have a better understanding about trade and its disadvantages

Objectives

By the end of the lesson, the students should be able to:

- Define 'barter trade'
- Identify key terms when a definition is given.
- Identify disadvantages of barter trade.

Lesson content outline

A. Beginning of trade

a. Barter trade

b. Disadvantages

Teaching aids

- White board
- Activity 1
- Textbook

Lesson Plan

Lesson Procedure	Method of Teaching/ Strategies	Instructional Materials/ Teaching Aids
Set Induction (35 minutes)	- Students are required to discuss on the answers of the previous test. They are also required to do their corrections	Notebooks, textbook
Content Lesson Development 1 (25 minutes)	Review of last week activity will also be discussed and explained. The main aim here is to enhance students understanding of last week's topic of needs and wants	Textbook, whiteboard, students work
Lesson Development 2 (20 minutes)	- Beginning of trade - Barter trade	Whiteboard, Textbook page 1
Closure (7 minutes)	- Check students understanding by reviewing on the whole lesson through oral questioning. - Introduce new topic for next week the topic on 'money'	- Whiteboard

Reference:

Betsy Li and Tan Sai Kim (1996). *Modern Certificate Guides Certificate Commerce*. 3rd edition. Singapore: Oxford University Press.

Chan Yat Tong (1988). *Objective Commerce and Book-keeping For L.C.E.* Oxford University Press pg 1.

Activity 1

- 1) Take out any of your own personal belonging.
- 2) Try and trade your things with your partner's own belonging.
- 3) Write down what you have gained and for what things you have to give.

	What are you selling?	What do you want in return?	Did your partner agree?	What did you partner want?
1				
2				
3				
4				

INTERVIEW QUESTIONS FOR PRE-SERVICE TEACHERS

STAGE ONE

Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

1.1 View of economics/commerce

First I want to talk about the study of Economics as a discipline.

4. Can you tell me about your background in economics?
Form 1-3, I didn't take commerce, I took homescience. I took economics in form 4 and form 5. In form 6, I took mob, because the teachers suggest I take mob coz easy to score. So ubd, I start taking economics again. Major economics and minor tesl.

Tell me also about your undergraduate courses: Favourite and least favourite.
Least favourite, asean economics. I don't understand lah. favourite, things like developmental economics. The teacher is quite good, dr tan kan. The way he teaches, I understand lah. basic, micro and macro because I learn already and I like the teacher because so funny.

28. What do you feel are your strengths in economics? What do you feel are your weakness in economics?
I prefer teaching economics because u don't expect to be fluent. My strengths in micro lah. because I learnt it in school, so when I took micro, so easier for me, because of my background. My weakness is the STATISTICS and ASEAN. I got a and b but I don't like them.

29. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?

I think basically economics is everywhere around us. If someone is an expert in economics, u can detect them anywhere, like there was this newspaper about the prices of chicken. So he printed the paper, and he said there was something wrong with the article. So an expert in economics, u can detect any mistakes, and familiar with issues and concepts.

30. Who was your best and worst economics teacher you ever had? Tell me about them. [probe for their way of teaching economics]

My best was dr tan. He can explain well. Dr manan, he is funny and he explains very clear. I don't like one lecturer, he taught asean economics. I don't understand the way he teach. He has lots of notes but doesn't know how to explain. So I ended up memorising them. The course was not that interesting.

In secondary school, I don't like the economics teacher, form 4 and form 5. in class, she was strict. Nobody really likes her. Ok lah, she teach. But she will get angry if we contribute ideas. Its more direct teaching lah.

I don't like statistic economics. She doesn't know what she was teaching. so she sometimes say, she was not sure. She talk and she doesn't know what she was talking about. She was the worst teacher.

1.2 View of economics teacher

Now I like to talk to you as an economics teacher

31. What made you decide to become an economics teacher? [probe for both reasons for teaching and reasons for teaching economics]

To me, I'm not ambitious. I m not like other people. I m only familiar with becoming a teacher. And anyway, in brueni, a teacher is a good job and that's influence me to be a teacher lah. I take economics because the only thing that I can take. I don't have basics in accounting. I don't like geography, I don't like history. Kira I don't have choice. So ok lah with economics since I have the basics lah.

32. Now, that you are an economics teacher or commerce teacher, what are your goals for your students?

My goal was simple lah. for them to understand the different2 topic lah. but not easy lah. sometimes like the language barrier. Because in economics, the language is quite tough for students.

33. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students?

[probe for economics knowledge and the way of teaching]

Language is difficult. Economics is not an easy subject. Students need to write essays. So if they are not good in English, how are they going to write the essays. Sometimes also like the questions, if u don't understand like mcq, its tough also. U need to have good English to understand the question lah. also it depends on whether the students want to study. Its not like geography, they have learnt before. Like economics, many terms are new. Lets say, if they haven't learned commerce, so all economics term are kind of new to them.

34. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you use? Are you familiar with the topics and books? Have you read them before? How are the students in your classes?

2 classes. Form 4A and form 4science2. form 4A, the whole class around twenty plus. But form 4science2, optional, only 2 stds. One boy and one girl. The topics I teach division of labour, business organisation, cost of production, all the basics, production possibility curve. I was familiar with all topics, so I just read all the notes. I used the green book, from the school one. I used the intro to economics, the rest are from my bros and my handouts lah. 4sc2 is very quite. Only 2 students. The girl much brighter, the boy so quiet. The other class, too noisy. They don't really take me seriously. They joke around.

1.3 View of pre-service teacher

Now I like to talk to you as a pre-service teacher of economics/ commerce

35. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

I actually want to use the simulation part for division of labour. But in the end I didn't do it because I will be observed and I'm scared that she will give me low marks. Then the class, like to talk, I'm scared, that if I do simulation, they will be noisy, so I abandoned the idea.

36. What other experiences that you have had that have affected how you think about teaching economics/commerce?

I don't think so. Only experience from ubd about the different methods of teaching and from the textbook. But I never applied bah. Only through the experience of mot. But I don't like the experience because I rather prefer direct method of teaching. to me, in Brunei, not easy to implement the method. In Brunei also, the students are very quiet, not disobedient and not contribute that much.

STAGE TWO

Interview 2: Teaching a Unit

Stage 2

2.1 View of economics

So what do you think is the main problem in teaching economics?

Sometimes I find that economics, the subject is not fun enough for students. Because it is like calculation. For calculation, I think if you want me to teach the calculation part, you have to ask me to go through MOT maths. Then I know what activity to give.

Also sometimes I use Malay as well because they are not really good in English. Sometimes the word I use in economics, they are quite technical. For example, let's say the definition of division of labour. I have to give simple explanation in English, and sometimes I have to speak in Malay.

2.2 View of topic taught

- 6) How do you feel about the lesson?

I don't like the lesson. I don't like the lesson because of the topic. I prefer to teach topics like the cost and benefit of production like social cost, private cost, division of labour. They ask me to explain. I prefer to explain. Teaching formula is so difficult.

- 8) If you are doing the lesson again, is there anything you would like to change?

I really don't like the topic. I don't know how to teach this topic.

- 9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

I need more planning. I think I need to spend more time reading my books.

2.3 View of how they want to teach

2.1 Now, I like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

- 1) How do you prepare your lesson?

When I did the lesson plan, I concentrated on direct teaching. Because like its not like essay type, its more like formula. And I'm not really good at teaching maths. So I have to make sure I know what is this, so that I know how to teach. In this case like today, I don't have time to prepare. Like before the class, I just taught English for two periods and now continue another 2 period.

- 2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

Sometimes. But I rely on my brother's handouts. He took economics before and his handouts are much better than mine, my old notes. He studied in this school before. So I rely on his handouts. I got a textbook on economics but sometimes I have to choose which is simpler to give to them. And I also refer to my old handouts.

3) How do you structure your lesson?

[Probe for the methods/techniques used to make the lesson more explicit to their students]

Usually I start the lesson by asking them questions. Recap back what they did last year. But this is very difficult. I try my best because it is difficult with only two students. Like they are very quiet. The students are very quiet. It is difficult. I am also sharing the class with another colleague, doing her tp as well. I share two classes with two teachers. Sometimes when I want to recap, I cannot because I have to recap the previous lesson before but in this case I cannot recap because last week the other teacher was not here. She didn't teach the class because she was attending the national day practice.

So today, I will give introduction, definition, formulas and give examples.

4) Where did you get your resources for the topic?

[Probe for other resources other than textbooks]

I got them from the textbook. I bought one textbook on economics. It was for O-level one. I bought it at one of the shops. Purple colour, mostly MCQs. The cooperating teacher only provide the past year papers and she provides us with books. But as I said, I rely on my brother's notes.

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

Hopefully they can remember the formula because it is like I am rushing now. Because they are going to have their tests soon. Next week is already revision. So again, it is very hard sharing classes with other teachers. It is ok if you are teaching the same topic but I don't know what she is doing right now. We do talk, but other stuff, we seldom talk about the subject.

2.4 The way they teach in class

Lisa, 26/2/05, salambigar, 1 student only

1017 tch: today's lesson is about cost of production

1018 tch wrote:

definition:

cost to anyone or firms directly involved in producing decisions

tch: lets say when a firm decides to produce goods, do you think that firm spend money, what do the firm have to pay?

Ok raw materials, labour, we also need machinery. meaning all of these are the cost of production, right. So there are actually different types of cost.

Tch: can u tell me what it means by fixed cost?

Std: read the definition from handout

1020 tch: can u understand that?

1021 tch: ok lets say, I give u one example, this is a car factory, produce 1000 toyotas. Ok now Toyota has become so popular, so lets say, more people are buying Toyotas. So as a car factory, do you think you want to produce more?

1022 std: yes

tch: why?

Std: profitable

Tch: yes profitable meaning that more people will want to buy your goods

Tch: so now u produce 2000 toyotas. So the car factory, you have to pay salary, right? So this salary, lets say, you are the worker there, so every month, you earn 1000 dollars there, so now that the car factory is producing more cars, do you think that the car factory will increase ur salary?

1023 std: increase

tch: increase? Lets say you are a new worker and ur basic salary is 1000 dollars. So 2 weeks later, the car factory decide to produce 2000 cars. Do u think in 2 dats ur salary will increase? No right. Usually the basic salary remains the same unless u are being promoted. Unless you have experience and you are promoted then ur salary will increase. So now because the car factory output increase from 1000 to 2000 cars, ur salary remains the same because you are still the same position. That is only the firm is now producing more but this cost, the cost for the firm right, So firm has to pay wages to the workers right so now the cost will still remain the same. The cost will be fixed.

1025 tch: so as u can see fixed cost, meaning the cost that does not vary with output. As u can see there, eventhough the output has increased from 1000 to 2000, eg of the fixed cost is the salary. It is the amount that does not change eventhough the output changes, eg rent, salary.

1026 tch: rent for example, he rent the factory, so they write the agreement righ, lets say, this company has to pay 10000 dollars. So usually, this rental agreement has expiry date. So this rental remains the same eventhough the output changes unless ur contract reach the expiry date. So no matter how much output increase, ur rental remains the same

1028 tch: fixed cost the short form is FC right. So how u can get fixed cost? So its $FC=TC-VC$

tch: so what is variable cost?

Std: read out the handout

1028 tch: what do u understand by the word variable?

Std: varies

Tch: varies means change. fixed remains the same

TCH: meaning that variable costs change easily

1029 tch: lets say the car factory, when he produce 1000 cars he need 4000tyres. Right?

1030 Tch: so the raw materials are the tyres, the steel, rubber for the tyres. So if you are producing more cars, do you need more materials?

Std: yes

Tch: yes right. So can you produce 2000 cars with the same amount of raw materials? Cannot right? So lets say if the amount of output you want to produce increase, you want to buy more raw materials, if you don't buy raw materials, you cannot produce more cars, right?

Ok, you are now producing 2000 cars, so what happen to the cost? Increases right?

So meaning in this case, when u produce more output, your cost of raw materials increase.

1033 tch: ok so example of variable costs are like raw materials, power, over-time pay wages. Ok so do u know what is over-time pay wages?

Std: working more than usual

Tch: yes, working more than usual. So if he produce more output, so workers are paid more as they work longer hours so their over time pay will increase

1034 tch: wrote $VC=TC-FC$

1034 tch: so read for me the definition of tc

std; read

tch: so total cost is the total cost required to produce the output.

1034 tch: ok now, just now we have talked about the fixed cost and after that the variable cost. fixed cost is the cost that does not vary with output, it stays fixed at all times. Variable cost are the cost that varies, if you produce more, your variable cost increase, if you produce less, your variable cost will fall. So in this case, the total cost is all the cost, the sum of fc and vc. So the formula is $TC=FC+VC$.

1035 tch: so u just remember one formula $TC=FC+VC$

1036 tch: it is simple, u just remember one formula

tch: what is the next cost?

std: average fixed cost

tch: ok so average fixed cost is simply ur fix cost divide by Q. q is the amount of output the firm is producing. So the next one is average variable cost. it is simple, its just the variable cost divide by the output.

1038 tch: so next is the average total cost. so it is total cost divide by Q. or u have fc plus vc over q. so lets say if you don't have total cost with you, so u just write down $fc+vc$ divide it by Q.

1040 tch: next is the marginal cost

tch: marginal is the additional cost incurred as a result of producing one more unit of output.

1041 tch: lets say, the firm is producing 1000 cars, he decides to produce one more xtra car. So in this case, the marginal cost will be the change in total cost divide the change in total output.

1042 tch: So do you have our calculator with you? We are going to do the exercise

std: do the exercise. Teacher guide the student in doing the exercise

1100 lesson ends

2.5 Their reflection of teaching

2.2 Now, I want to talk to you about how you taught just now (after lesson observation)

6) How do you feel about the lesson?

I don't like the lesson. I don't like the lesson because of the topic. I prefer to teach topics like the cost and benefit of production like social cost, private cost, division of labour. They ask me to explain. I prefer to explain. Teaching formula is so difficult.

7) Were you pleased with the way the lesson went? Did it work out the way you had expected?

No, I am not pleased. Because one student was missing. This student is very quiet. The missing student was better. She can talk. So she is better.

8) If you are doing the lesson again, is there anything you would like to change?

I really don't like the topic. I don't know how to teach this topic.

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

I need more planning. I think I need to spend more time reading my books.

10) Do you think you have learned anything new about teaching from the lesson?

The lesson was dull because I have only one student just now. Not much feedback. Very quiet. Yeah, it sort of like ruin my mood to teach.

11) Do you think that your students have understood what you have taught just now? How do you know?

Well, sometimes there are times when the students don't understand. They keep silent. So I have to ask him, he says he doesn't like my way of teaching. So after that, I understand why he doesn't understand

12) Have the students enjoyed learning the topic? How do you know?

No. Not really. I can see from his facial expression. Because he doesn't like maths as well.

13) How do you usually introduce a new concept or new topic?

Like division of labour, I ask them what do you mean, I write on the board, 'what is labour?'. And then I asked what do you understand by the word division? So from their answers, I explain that division of labour means that for the labour you divide the job which one person does a task and another person does other tasks. So I sometimes introduce like this.

14) Do you ask your students to give their own examples and explanation?

Not all. Example, usually I am the one who provides notes with example. Sometimes like the student just now, I ask him the cost of production. I ask him what are the examples. Give me some examples of some of the firm's costs. So he mentioned raw materials, labour you have to pay wages.

Regarding the other class, 4A, there are 26 students and all took economics. Economics is compulsory. So with that class, the students give lots of examples. Lets say, specialization in Brunei and Thailand. Why can't Brunei specialize in producing rice? I asked what is wrong with the labour in Brunei. one student said 'not enough people'. So I said what is necessary for them to do to have enough labour? She said import people. So I ask what about Thailand. Another student said, 'thailand has a lot of people'.

A: So I said, what is necessary for them to do to have enough labour?

I: Mm

A: She said that 'Import people' n so I ask what about Thailand?

Another student say 'Thailand have a lot of people' I ask do they have to import? They say 'No need'. So umm.. u know... so which one ah... like in Brunei, they have to pay more right

I: Mmm

A: Like they have to pay... they have to pay for the ticket again to come to Brunei. Pay for their medical fee n all this stuff kan

I: Yeah

A: So I say like this lah... what if Brunei do... can produce rice? Which do u think? Which do u think people prefer to buy? They say Thailand n I ask why? B'coz they say cheaper.

15) What about your teaching resources?

I don't really use the internet. Not really good. I have problems in finding sources from the internet. I am not sure which website to use. Because I am new.

16) How useful is the knowledge that you have learned from the university in your teaching?

Ok. I try to teach simulation. I learn in MOT economics. At first I intend to do simulation but in the end I teach division of labour because the class is just too big. It takes time and that class is 4A. This class is the one that is left behind. I don't know whether I can finish the syllabus or not. They were left behind because of the national day practice and holidays. So if I do simulation with them, I don't think I have done the division of labour. Their test paper is already set and we only have one period in one week to catch up.

So what do u think is the main problem in teaching economics?

Sometimes I find that economics, the subject is not fun enough for students. Because it is like calculation. For calculation, I think if you want me to teach the calculation part, you have to ask me to go through MOT maths. Then I know what activity to give.

Also sometimes I use Malay as well because they are not really good in English. Sometimes the word I use in economics, they are quite technical. For example, let's say the definition of division of labour. I have to give simple explanation in English, and sometimes I have to speak in Malay.

Stage 3

3.1 View of economics

36) Finally, from your point of view, tell me what does it mean to learn economics?

To learn economics, u have to be aware of changes in this world. Sometimes like dulu ah, we only know typewriter kan, now we know all this internet research lah, so we as teachers need to adapt with changes lah.

3.2 View of topics taught

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

Division of labour. I learn it before so I understand kan. So like advantages and disadvantages I'm familiar with it lah. either business organisation, sole trader, partnership. I teach them using direct teaching. except limited company, I use manila card, and I try to extract from students, what are their opinion of being limited company. When they list them out, I showed them out from my manila card and then at the end, barutah I give them the notes.

Least favourite topic is the calculation like fixed cost. Because its maths. And I don't like maths.

4) How did you prepare to teach topics that you haven't studied?

I studied already all the topics because I took economics before. I don't like cost of production because I forgot the formula kan. But I still have my old notes from my previous secondary school. And if I don't understand my old notes, so I just use my brother's notes kan. Sometimes I used dictionary economics. I understand first then I teach them.

3.4 View of relating economics knowledge to teaching

At fbeps, the economics there more advanced compared to economics I teach in school, more simpler. But its good, at least I have a much wider knowledge, more deeper of that topic. So when I teach in school, more simpler, so I'm able to teach the simple one. So its easier to apply lah.

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

3.3 View of learning to teach economics/commerce

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

Division of labour. I learn it before so I understand kan. So like advantages and disadvantages I'm familiar with it lah. either business organisation, sole trader, partnership. I teach them using direct teaching. except limited company, I use manila card, and I try to extract from students, what are their opinion of being limited company. When they list them out, I showed them out from my manila card and then at the end, barutah I give them the notes.

Least favourite topic is the calculation like fixed cost. Because its maths. And I don't like maths.

2) What was your favourite resource?

I prefer textbook. Mostly it's the old textbook.

3) What was the best lesson that you had taught? Why?

The best lesson was the limited company. I did postcard. Because last time, I did research. I get pictures like cartoon pictures. I showed them visual pictures many people compared to the other one, one person only. I extract information from students and showed the pictures to the students.

4) How did you prepare to teach topics that you haven't studied?

I studied already all the topics because I took economics before. I don't like cost of production because I forgot the formula kan. But I still have my old notes from my previous secondary school. And if I don't understand my old notes, so I just use my brother's notes kan. Sometimes I used dictionary economics. I understand first then I teach them.

5) Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

I tried to relate. I tried to extract from them. I tried to give about Bandar area about old shops there. Lets say, I use examples like jtb, water department. I asked them, give me examples like large firms, so they give answers like dst lah. but not all topics. Sometimes it is easier, but not all the topics..

6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand? If students don't understand, I will try to explain in simple terms, because u know the notes are quite complicated kan so they don't understand. So I encouraged them to write in simple version. Usually, I ask them to give local examples so that I know they understand the terms. And I asked them to do classwork. If they cannot finish, then it becomes homework.

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

37) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

When I was a student at sharif ali, I am exposed to direct teaching. they just give notes and talk, talk, talk. To me, this kind of teaching is ok for me. Because since I was small, I am exposed to this kind of thing. But when I go to ubd, my lecturer was western, so he wants us to expose to that kind of teaching that wants students to participate lah, to give opinions lah. to me, this kind of method does not suit me lah. I think it is a good way because it has lots of advantages to use other teaching methods lah other than those direct teaching lah, for example like simulated teaching lah. because it helps students to remember. But I prefer to the direct teaching because I'm exposed to this kind of thing so when I try to teach simulated teaching, it doesn't seem to suit me. So I think if u want to encourage students to use this kind of method, its better to start from small lah. because those students who are quite and shy, if u start to introduce all these kinds of methods, they don't like lah...not that they don't like but they don't want to participate lah.

At fbeps, the economics there more advanced compared to economics I teach in school, more simpler. But its good, at least I have a much wider knowledge, more deeper of that topic. So when I teach in school, more simpler, so I'm able to teach the simple one. So its easier to apply lah.

38) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

To me, being a teacher, is not easy. Sometimes u thought that becoming a teacher is easy, dulu I thought I just prepare notes and talk. But when I go to ubd, but I learnt many different kinds of teaching methods like I learnt, don't always use direct teaching method. So its not an easy job because I'm always used to the direct teaching method kan. So when I do mot economics, I have to adapt myself use different kinds of method. So being a teacher, is not an easy job. A teacher needs to show..they are role model. I don't like the mot economics and mot tesl. So lots of methods. And lots of them are the same lah. up to me to use this kind of method. But I know its not good for the students to rely on direct teaching. I lupa lagi kan..coz direct method does not lead to long term memory. So to be an economics teacher, u should try to adapt to using different teaching methods that fits that topic. Eg, division of labour, can do activity like ask, form a group lah, all this thing, then after that, encourage them what they have experience, and at least, they have real life experience so that they can remember it lah.this is what I think lah.

39) What else did you learn from your teaching practice? [probe for the role of schools and community]

The school was too hot lah. the school was ok lah. compared to other school, it was much better. They don't allow us to photocopy. The teachers there not that helpful, like borrow notes, they are not helpful, they just say, u make ur own notes. So I share with jacynta, we make our own notes. But from teaching practice, I learnt not so easy to teach students. The students like 4A, sort of like naughty students, different from teaching at ubd, not easy to control the class. So usually, I apply direct teaching. then some students, just want to play with you. And then sometimes, they don't understand English. So I have to teach in malay lah.

40) Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

About the courses, it teaches me to apply other teaching method lah. give me variety of teaching methods to choose from like simulated teaching. it helps me to choose lah. I think psychology is quite good lah. it teaches us things like the way to control students, the way u talk students can motivate students.

41) What other experiences that you have had that have affected how you think about teaching economics/commerce?

Not really.

42) Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?

Basically, dr wood covers everything. Setting mcq, assess students learning. I think basically, the course is quite good. There is this book, when I took mot, I usually refer to one book, for a new teacher, its quite a good book. He gives us a lot of simulation. At first how u do it England. He shows us varies situation lah.

43) Finally, from your point of view, tell me what does it mean to learn economics?

To learn economics, u have to be aware of changes in this world. Sometimes like dulu ah, we only know typewriter kan, now we know all this internet research lah, so we as teachers need to adapt with changes lah.

Appendix 8 (A8): Transcripts of Ahmad

Ahmad
Economics

INTERVIEW QUESTIONS FOR PRE-SERVICE TEACHERS

STAGE ONE

1.1 View of economics/commerce

Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

First I want to talk about the study of Economics as a discipline.

5. Can you tell me about your background in economics?

Form 1 and form 3, I took commerce. form 4 and 5, I took economics, form 6, I took mob. At ubd, major economics, minor accounting.

Tell me also about your undergraduate courses: Favourite and least favourite.

My favourite was Islamic economics. It was new for me. My least favourite was mathematical economics and statistical economics, for me, as a teacher teaching form 4 and form 5, it was complicated and not useful for teaching. It was also difficult.

37. What do you feel are your strengths in economics? What do you feel are your weakness in economics?

I was ok with micro and macro because I learnt already in secondary school. I hate maths and I couldn't relate with economics.

38. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?

If that person is an expert, I expect them to know everything, including maths and statistics, and the current condition to the world, such as why the price of oil goes up and down, so they know how to explain.

39. Who was your best and worst economics teacher you ever had? Tell me about them. [probe for their way of teaching economics]

My worst was when I was studying in form 4 and form 5 because he doesn't ask how we think and how we feel. He only chalk and talk, the same old thing. He just give paper, and he only talk and we just sit. I don't have any best. At ubd, the lecturer who taught macro economics. The way he teach was simple. He usually draw graphs, and explain. And then ask us how to explain back, so when we do the exams, we just concentrate on the graph only and we can explain it by ourselves.

1.2 View of economics teacher

Now I like to talk to you as an economics teacher

40. What made you decide to become an economics teacher? [probe for both reasons for teaching and reasons for teaching economics]

Actually, I never planned to become a teacher. I just go with the flow. I never plan to do a levels, and then I got it. And then I applied ubd, and I got it. I chose economics since I was familiar with economics since secondary school. So that's why I chose major economics and minor accounting.

41. Now, that you are an economics teacher or commerce teacher, what are your goals for your students?

I want them to understand all the concepts. Because the concepts are important, when they know a single concept, and they think about it a lot, they will be able to explain it. For example, the market system, when u know the concept, then u know how to find the advantage and disadvantage. So understanding is important.

42. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students?

[probe for economics knowledge and the way of teaching]

Some difficult words are difficult for students to understand. That's why made my teaching slow sikit since I had to explain to them very, very simple so that they can relate to the topic. In the textbook, there are so many complex words, so I had to use handouts to make them simpler to students. Last resort, I explain in malay to make easier for students.

43. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you used? Are you familiar with the topics and books? Have you read them before?

How are the students in your classes?

One class economics. 20 students. There were more boys than girls. Last time, I taught scarcity, division of labour, cost of production, economic system, monopoly, perfect competition. I used lots of textbooks even university textbooks for references. Yes, I was familiar with the topics and books. With the students, I have problems with the boys, because most of them found difficult to understand. Their problem was the language. They found difficulty in understanding English, so I had to explain in Malay.

1.3 View of pre-service teacher

Now I like to talk to you as a pre-service teacher of economics/ commerce

44. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

From Mot economics, I planned how to teach certain topics. So when I taught for example, division of labour, I used the ideas from mot.

45. What other experiences that you have had that have affected how you think about teaching economics/commerce?

When I was at uhd, I learned theories and practical like peer teaching. but peer teaching, we are teaching our friends and all could understand. But during tp, I know that the students did not know understand, so I had to find ways to make them understand.

STAGE TWO

Interview 2: Teaching a Unit

Stage 2

2.1 View of economics

16) How useful was the knowledge that you have learned from the university in your teaching?

Ok, the most important thing I have learned is that, try to make students understand the sources and not try to focus on remembering the concept. If students understand, instantly they will remember. Variation is important because they are able to differentiate different things at one time. Yeah, students are able to see the differences. That is what is important in teaching the students. So MOT was really helpful. We also learnt about classroom management, and psychology, where we have to know when students are interested. For economics, the content is too broad because when I do the lesson plan, I have to go down to students' level, to O-level. So I have to think and go to that level.

2.2 View of topic taught

2.3 View of how they want to teach

2.1 Now, I like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

1) How do you prepare your lesson?

I prepare one week beforehand. Before that, I have to read some books. I usually use four books, different books and I'll simplify and prepare my own notes. I forgot the names of the books. The green one, but all the books in the list.

I: Yg hasimali atu ko pakai jua?

K: Every book yg in the list

I: Oh alright. So u interpret n then

K: Yeah I have to interpret and...

I: Analyze the txtbk atu

K: yup. Some txt are some txt apa... some txtbk... it's difficult to understand. Use

the complex word so I have to make it as simpler as possible so that students are able to understand

I: Ok

K: Then I usually use bullet point so that they just remember the point and then if they know the point. Hopefully they are able to say something about the point.

2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

yes I have to simplify. Because some textbooks, its difficult to understand. For complex words, I have to make them as simple as possible so that the students can understand.

3) How do you structure your lesson?

[Probe for the methods/techniques used to make the lesson more explicit to their students]

ok, for this lesson, I use activities. That is for motivation and induction. So they have some ideas and experience of what we are going to learn. Last time, they did division of labour. Then also individual work because they are able to compare between division of labour and individual work.

4) Where did you get your resources for the topic?

[Probe for other resources other than textbooks]

just from the textbook and for the activities from my previous peer teaching. I don't get help from the cooperating teacher. She just gave me the scheme of work and I'll do everything by myself. I don't share and discuss with my friends. I only started collecting resources now that we are doing our teaching practice.

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

I want them to understand the division of labour especially to relate and compare the division of labour with production. If they are able to compare then they may find the advantages and disadvantages of division of labour.

2.4 The way they teach in class

Ahmad, berakas, 3/3/05

742 tch: what does it mean by specialization

743 tch: someone who is good in making one good. What do you think?

Class: silence

Tch: give me one example

Std: someone who is good in cutting wood

Tch: try to relate this to the activity you did last time

Tch: what did you do during the activity?

746 stds silent

tch: how can u relate to this specialization

tch: it happens when an individual concentrating in one task

tch: if we talk about countries, for example, in Brunei, we are specialize in ?

stdS: oil and gas

tch: yes oil and gas. So any questions? Are you sure?

747 tch: ok look at your notes. Now we are going to talk about the expensive machineries that can be used on the task. So last time, how can you relate to ur tasks last time?

749 tch: last time ur expensive machineries were your ruler and scissors. So how can you relate your activity with this point?

Stds: silence

749 tch choose a std (stood-up)

tch: try to compare with the groups individual and the individual?

Tch: choose one std

Std: no answer

Tch: can anyone help her?

Tch: call another student

Tch: pick another std

753 tch: your scissors and rulers are your expensive machineries. Please explain to me the words expensive machineries can be used in division of labour

753 tch: stds work in group use scissors and rulers. But for individuals, he or she didn't use scissors all the time.

For eg, he or she wants to cut the paper, he or she doesn't use scissors. So as you can see, the individual std did not use expensive machinery all the time, but division of labour, their workers use scissors all the time. So do you get what I mean?

Stds: yes

755 tch: are you sure?

Stds: yes

Tch: are you sure? Anybody who does not understand raise you hand? Higher..

10 stds raise hands

tch pick one std; explain what you understand

std: division of labour use expensive machineries all the time for individual not all the time

757 tch: yes and repeat the std answer

tch: next, can anyone read the next point?

Std: division of labour can economise expenditure capital

Tch: yes what do you understand by that?

Tch: for example, making the paper basket

759 tch (First time use whiteboard)

wrote

division of labour

2 group = 4 workers

8 workers

2 groups

6 machineries

8 workers



8 groups

24 machineries

803 tch: so what do you mean when division of labour economise expenditure capital. Economise means you can reduce your spending on your machineries. Do you get me?

804 tch: so what can you see here? (pointing at board)
 does the figures agree with the notes?
 Std: yes
 Tch: who said yes. Why did you say yes?
 Std: silence
 Tch: explain again. So here on the board,, for division of labour, how many machineries
 Std: 66
 Tch: No division of labour, how many?
 Stds: 24

806 tch: so do you get me? (pick a student to explain again)
 std: division of labour use less machineries than individual worker
 tch repeat the sentence again.
 Tch: Do you understand? Who do not understand?
 Tch: next, the disadvantages. (pick a student)
 stdL read the points from handouts.

809 tch: division of labour makes people do the same job everyday and this could lead to poor quality as workers can lose interest
 tch pick a std: 'try to explain that point again'

810 std:
 tch: for example, I want you to cut 1000 paper everyday, how do you feel? Yes like last time, I was some std did shortcut, did not draw the line, did not cut along the line. So that's the disadvantages of doing all over again, the same tasks. Any questions? Are you sure?

812 tch: are you sure? If you don't understand, raise you hand
 stds 7-8 raise hands
 tch pick std who did not raise hand, explain to your friend again
 tch: explain again
 tch: ok, workers begin to take less pride and become alienated their work especially when they are doing small tasks
 tch repeat again

816 tch: imagine a worker doing just screwing, how you see?
 Std: not challenging
 Tch: yes compared to workers who are managers
 Tch: so who prefer the engine?
 Tch: no one?
 Tch: because it is simple

819 tch: so you want to have challenging work, you don't want a simple job because you have a high qualification

819 tch: so any questions?
 Tch: by the way, are you proud if you are doing screwing?
 Stds: no
 Tch: no see but I feel proud because not everyone can do it. For you, it is easy but for me, I am proud to do it.

820 tch: so any questions?
 Tch: are u sure?
 Stds: ys
 Tch: can I ask you a question?
 Stds: nooo
 Tch: why?
 Students: silence

821 tchL ok, read the next point (pick a std)
 std read thepoint
 tch: do you understand?
 Std: no
 Tch: any of you understand?
 Std: silence

822 tch: ok this is about mobility. In division of labour, you are train to do a specific job. For example, if your job is to fold paper, then you are trained to fold paper. For example, if your job is to draw a line, then you are trained to draw the line.

823 tch: in real situation, for eg painting – you have to be trained to paint, you have to be trained to assemble the cars. For example, whatever you did last time, you have to be trained for 3 months because it is so complicated for

example how to draw a straight line, how to cut paper, because you are only given one skill, one day, you are given machineries to cut all this paper, so we do not need workers to cut paper. So what happens to this worker?

825 std: unemployed

tch: wh?

Std: because the machinery

826 tch: the individual is trained to do 4 different tasks, so even the cutting machinery to cut papers they still be able to do other tasks, the 3 tasks because they are already trained to do the 3 tasks, do you get me? Are you sure? Any question? Louder? Any question?

827 tch: next, there is a high degree of interdependence in the production. Everyone depends on everyone else, therefore if one machine breaks down then the work factory stops

tch pick one std: stand up!

829 tch: explain

std: silence

tch: can anyone help your friend?

Tch pick another std

Std:

Tch: what happens last time when I took two from one group? Yes you were not able to finish because you are dependent on each other

831 tch: do you understand? Are you sure? Please explain to me again one more time

tch: do you understand? If one machine breaks down often tasks will break down

tch: do you understand? Are you sure? Really-really sure?

Tch: If I ask you to explain one more time, will you be able to explain? Yes or no? Louder!

Stds: yes (mumbling)

Tch: hands up who said yes? Hands up... higher, higher

833 tch: so the rest of you do not understand or unable to explain

stds: unable to explain

tch: so how are you going to pass your test ni?

Tch wrote at blackboard

A-B-C-D-E

If no C, then no finish good, remember that!

Comments:

All students were sitting quietly at their table. Teacher stood in front during whole lesson, explaining and questioning students.

2.5 Their reflection of teaching

2.2 Now, I want to talk to you about how you taught just now (after lesson observation)

6) How do you feel about the lesson?

I find that some of the students may have some difficulties to understand especially the disadvantages and advantages and then I find that the problem is that they are not able to relate to the activities they had experienced. I thought that they would link, relate and understand with the activities.

7) Were you pleased with the way the lesson went? Did it work out the way you had expected?

Not really because most of the students did not understand. Maybe they do understand but maybe they are not able to explain it just now. Actually I expect them to relate the lesson today with the activities but they did not.

In the lesson just now, before I relate to the activities, I just do read through the notes. But the problem is that this may be difficult for students to understand. That is why I use activities. Let them experience everything first so that they have some ideas about division of labour and its advantages and disadvantages. It was the first time I did the activities and I did them last week. Before this, I use handouts and sometimes group activities. For example, we did all the production, tertiary, primary and secondary and the line of production. I ask them to draw and state examples on the line of production. The group activity was successful. First I gave examples, like I introduce the concepts, then I asked them to give another examples through group activities.

8) If you are doing the lesson again, is there anything you would like to change?

In the case of division of labour, for the activity, I only focus on dividing the workers the way I want to, so maybe next time I will ask them to decide how they want to produce.

For the lesson just now, I don't think I want to change anything. It was just a kind of discussion.

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

But for the students, the main problem for the whole lesson is that the students are too shy to explain and they have difficulties to explain in English. And some of them are not motivated to participate in the discussion.

10) Do you think you have learned anything new about teaching from the lesson?

Yes, overall, I have learnt one important thing which is that we cannot assume that students know everything. When we teach, we already know everything, but students may not understand or may not know what they are trying to say. That is why we have to ask over and over again just to know whether they understand or not.

11) Do you think that your students have understood what you have taught just now? How do you know?

I am not sure they understand or not. As you could see just now, their problem is that they are too shy to explain. They are not actively participating in the discussion. That is why it is hard for me to evaluate and assess their performance. But hopefully, next week, I will give them some exercise to assess this lesson just now.

12) Have the students enjoyed learning the topic? How do you know?

Yes, just the topic of division of labour. I think in terms of doing the activities. They did enjoy. Some of them did learn. In the activity, they were doing their work seriously and they try to make as much as possible. But in terms of students' lesson just now, maybe they are don't like doing discussion or maybe they are not interested. They are not enjoying the lesson just now.

13) This is about your lesson in general. How do you usually introduce a new concept or new topic?

Usually I include the activity just to give them some ideas. If not, I just ask them questions, just to start over for examples, the economic system. I ask them why some goods are produced by the government and why some goods are produced by the private sectors. Just to give them some ideas.

14) So do you ask your student to give their own examples and explanation?

Yes. Usually I ask them what they understand and sometimes I ask them to give examples so that I know what is in their mind and so on.

15) Where do you get your teaching materials from? Sources? Do you use the internet?

Yeah. Sometimes I search for the internet. I search biz-ed, the website was introduced by my supervisor. I don't use newspaper cuttings. My notes are mostly from the textbooks.

16) How useful was the knowledge that you have learned from the university in your teaching?

Ok, the most important thing I have learned is that, try to make students understand the sources and not try to focus on remembering the concept. If students understand, instantly they will remember. Variation is important because they are able to differentiate different things at one time. Yeah, students are able to see the differences. That is what is important in teaching the students. So MOT was really helpful. We also learnt about classroom management, and psychology, where we have to know when students are interested. For economics, the content is too broad because when I do the lesson plan, I have to go down to students' level, to O-level. So I have to think and go to that level.

What do you think is the main problem teaching in economics?

The main problem is that explaining some question especially, for example, in the market economy system, they mention about demand and supply, but students have not learnt about supply and demand concept. So it is difficult for students to discuss when we are talking about the market system, demand and supply. So when students haven't learnt about the concept of demand and supply, it is difficult to explain them in detail.

Another problem is that I have to use Malay when some students find it difficult to understand the concepts in English. The other problem is students' participation. Sometimes they are reluctant to participate, reluctant to explain and so on.

3.1 View of economics

44) Finally, from your point of view, tell me what does it mean to learn economics?

To learn economics is connected to your life. It is about decision making, and how to organise our life. Macam cost of production, in our life, we have to calculate our spending.

3.2 View of topics taught

1) What was your favourite or least favourite topic to teach? Why?

My favourite to teach was the division of labour. Because it was an easy topic for the students and me. And then the preparation that I made. I used an activity. I divide the class into groups and some into individuals, then I asked them to

make a paper box, and in that way, some of them will experience the division of labour and some will experience that they have to do it by themselves. After the activity, what they have learned, I didn't tell them the main points, so through their experience, I write everything on the whiteboard, and then I point out the important points. So that they understand. The least favourite topic was the economic system, the market, planned and mixed economy system. Because its time constraint and then the content was large; the introduction, the concepts, advantages and disadvantages. I had to cover it in 3 weeks. The time was not enough, I had to rush as I had to follow the scheme of work. Then most of the students, payah kan understand of the concepts. They find it difficult between advantages and disadvantages. I don't think all students were able to distinguish between the three markets. I used the exercises. I used an activity. I write points on the board, I wrote market, mixed, planned, advantages, disadvantages, features, and then I just asked them to put which the statement in the right place and asked them to explain. Most of them were able to put the sentences in the right place but failed to explain about the sentences to know their understandings.

3) What was the best lesson that you had taught? Why?

The division of labour. The activity shows that students were able to explain and understand everything through their experience.

3.4 View of relating economics knowledge to teaching

45) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Actually, learning economics at the university is useful because we have in depth knowledge of the topic, so when some students asked high knowledge questions, we are able to answer their questions.

3.5 View of school economics or commerce

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

3.3 View of learning to teach economics/commerce

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

My favourite to teach was the division of labour. Because it was an easy topic for the students and me. And then the preparation that I made. I used an activity. I divide the class into groups and some into individuals, then I asked them to make a paper box, and in that way, some of them will experience the division of labour and some will experience that they have to do it by themselves. After the activity, what they have learned, I didn't tell them the main points, so through their experience, I write everything on the whiteboard, and then I point out the important points. So that they understand. The least favourite topic was the economic system, the market, planned and mixed economy system. Because its time constraint and then the content was large; the introduction, the concepts, advantages and disadvantages. I had to cover it in 3 weeks. The time was not enough, I had to rush as I had to follow the scheme of work. Then most of the students, payah kan understand of the concepts. They find it difficult between advantages and disadvantages. I don't think all students were able to distinguish between the three markets. I used the exercises. I used an activity. I write points on the board, I wrote market, mixed, planned, advantages, disadvantages, features, and then I just asked them to put which the statement in the right place and asked them to explain. Most of them were able to put the sentences in the right place but failed to explain about the sentences to know their understandings.

2) What was your favourite resource?

Actually, for any subject, I prefer to use powerpoint. But in economics during tp, I couldn't book any rooms so I didn't have any chances to use powerpoint for teaching. I like activities and groupwork, as they are able to explain themselves. I find that they prefer groupwork rather than lecture. I used the textbook for myself and write again for handouts for the students.

3) What was the best lesson that you had taught? Why?

The division of labour. The activity shows that students were able to explain and understand everything through their experience.

4) How did you prepare to teach topics that you haven't studied?

I am familiar with all the topics but not in depth. So I just go to the library, and research in any books. And I surf the websites as they give lots of ideas for activities.

5) Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

yes. When I taught monopoly, such as dst before lah. and then, I ask students examples, like the division of labour, I asked them examples in Brunei, and they said like tenunan kain, they said there is no division of labour as seorang saja membuat.

6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand?

Throughout the lesson, I asked them whether they understand or not. they usually said yes, sir. But then I know that some did not understand, so I will ask them what they understand, so if they don't understand, I ask their fren to

explain. If the third person that I asked still could not explain, then, I have to explain again and make it simple, and if I have to, I will explain in Malay. I do give classwork in all lessons. Homework, just once a week. I didn't use data response because searching for the relevant topic is difficult.

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

46) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Actually, learning economics at the university is useful because we have in depth knowledge of the topic, so when some students asked high knowledge questions, we are able to answer their questions.

47) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

I learned how to find good content, how to make topic interesting, how to use other teaching methods, like activities, group besides just lectures. My ct let me know which one is relevant because I got carried away with high knowledge. My peers helped me to do lesson plans, how to organise the class. My supervisor is important, because once or twice a week, I will go to him and ask his opinions on how to teach the topic. I will ask him how to improve my teaching.

48) What else did you learn from your teaching practice? [probe for the role of schools and community]

I learnt to be patient in preparing my lessons. I have to work hard. I have to ask opinions of others. I also asked students their opinions of me, and they said I talked too fast and I learned to talk a bit slow. The school tell us where to find the books, they help out with teaching aids.

49) Tell me how your courses at the university have affected how you think about teaching economics/commerce? To help you out, here are the titles of the courses. [Probe for the course of method for teaching economics/commerce]

Everything is important. Mot is important because how we present to teach economics. The other courses help me to become an effective teacher.

50) What other experiences that you have had that have affected how you think about teaching economics/commerce?

Yes, my experience as a student, my economics teacher just straightforward and only used lecture, lecture, lecture, and as students, we get bored. So now, that I am a teacher, I know how it feels as a student when the teacher just talks and talks, so that's why I tried to make things different and tried to involve students with activities and group work.

51) Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?

I think the courses on mot, it should be in depth lagi. Such as how to organise the students, how to conduct activities, and so on.

52) Finally, from your point of view, tell me what does it mean to learn economics?

To learn economics is connected to your life. Its is about decision making, and how to organise our life. Macam cost of production, in our life, we have to calculate our spending.

Lesson Plan: Ahmad

Lesson Plan

Name of Pre-service teacher: Ahmad

Class: Form 4

Date: 3rd March 2005

Subject: Economics

Time: 7.30-8.40 (1 hour 10 minutes)

No. of students: 23

Topic: Production

Sub-topic: Specialisation/Division of Labour (continuation)

Objectives:

By the end of the lesson students will be able to:

- Explain what is specialization and division of labour
- Identify and explain the advantages of division of labour
- Identify and explain the disadvantages of division of labour
- Identify and explain the limitations of division of labour

Teaching Aids

- Notes
- Whiteboard

References:Lobely, D. *Economics; A New Introduction*. Murry, 1988.Young, R. *Work Out Economics GCSE*. Macmillan Press Ltd, 1987.Paisley, R and Quillfeldy, J. *GCSE Economics*. Longman, 1987.**Lesson Development**

	Lesson Procedures
Set Induction/ Motivation	<ul style="list-style-type: none"> - Recall the activity done by the students in the last lesson. - List down what the students have learnt during the activity.
Content	<ul style="list-style-type: none"> - Continuation of the advantages, disadvantages and limitations of division of labour - Relates these advantages, disadvantages and limitations to the activity they have done previously. - During this process, ask students what they understand with the points given and explain it to the class. - Encourage students to give some examples to support their understanding.
Closure	-

Assessment:

Evaluation:

Appendix 9 (A9): Transcripts of Zahrah

Zahrah
Commerce

1. STAGE ONE

Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

1.1 View of economics or commerce

Table 1.1: Zahrah's background in Economics:

Zahrah	Form 1-3 (lower secondary)	Form 4-5 (O-levels)	A-levels	UBD (major/minor)
Commerce	Yes	None	None	None
Economics	None	None	None	Yes (minor)
Options		Principles of Accounts	MOB (Management of Business) P.O.A. (Principles of accounts)	Geography (major)

Table 1.1 has shown that Zahrah did not take economics in her O-levels and A-levels. She took commerce when she was in the lower secondary (12-14 years old). She took principles of account for her O-level. Later, she took Management of Business (MOB) and Principles of Accounts for her A-levels. She only took economics as her minor subject at the university whilst geography as her major subject.

During her learning of economics at the university, Zahrah perceived the course 'Brunei economy' as a bit easy to understand. She did not like macro-economics. Although she found that the content was difficult, she liked the way the lecturer taught the subject.

Zahrah admitted that her weakness in economics is many including explaining graphs and doing analysis. Although she liked learning demand and supply, she found that explaining the graph was difficult. She was not sure whether she has a deep and broad knowledge in economics.

Zahrah perceived that for someone to know economics would mean that the person would know about demand and supply. That person would know that there are different elasticities of demand and supply with different reasons. Zahrah also perceived that for someone to be an expert in economics therefore he must be an expert in demand and supply. She said that the expert would understand demand, supply and elasticities.

1.2 View a commerce teacher

The influence of Zahrah's family played a key role for her decision to be a teacher. Her mother is a teacher, her aunt is a teacher and many of her family members are teachers. Hence she wanted to become a teacher as well. She chose to become an economics teacher because for her because for her, teaching economics would be a new experience and she would try her best to make people understand economics.

Zahrah was determined not to become like her old commerce teacher. She did not want to use only explanation when teaching. Zahrah reflected her commerce teacher when she was in her lower secondary as just 'chalk and talk'. Zahrah described her commerce teacher as only using explanation during teaching. She found that the teacher was boring and therefore she concluded that commerce was really boring.

For teaching practice, she had to teach commerce. As a commerce teacher, her goals for her students are for them to understand and get good grades. She planned to try out different styles of teaching, not only explanation. However, since she still had her old commerce notes, she planned to still use them as her teaching resources.

Zahrah was teaching commerce to Form 2 students (13-14 years old). She had to teach a mixed class of boys and girls, 28 students altogether. The topics that she had to teach were advertising, functions of banks, cheques, and the difference between current and capital account.

In her early weeks of teaching practice, she found that the problem of teaching commerce was the use of English by her students. She found that her students experience difficulties in understanding many topics, for example the topic of cheques. The students were confused about the terms and concepts such as crossing cheques, open cheques, and others. So Zahrah had to use lots of teaching aids such as a manila card with the picture of cheques and a blank cheque to gain students' understanding. Since many students were still confused with the types of cheques, Zahrah had to explain many times. This affected the bright students who found the repeated explanation boring. She had to give extra activities for the bright students so that they had something to do, such as explaining a brochure to other students.

1.3 View as a pre-service teacher

How the courses at the university have affected how Zahrah think about teaching economics/commerce?

"In our M.O.T. (methods of teaching) for economics, we have to get students involvement. But in reality, we cannot have 100 percent students' activity. Because time is limited. Like commerce, we only have 2 to 3 hours in one week. So I have to follow the scheme of work, if not, I will be left behind. I didn't expect to be given commerce, I thought I would be teaching economics. At first, they didn't want to give commerce because I think they are afraid that the students would be left behind. But after I gave the test, I asked the subject teacher, whether the results were ok, and she just said, that they were fine, at least the students understand. In M.O.T. economics, we learnt the variation theory, like how you vary the lesson. It is time consuming. I did a few, like functions of bank. But it is time consuming, especially when students don't understand. So that theory cannot be practice."

2. Stage 2: Teaching

2.1 View of economics/ commerce

10) Do you think you have learned anything new about teaching from the lesson?

"For myself, actually in studying commerce. For commerce student, I feel commerce is a difficult subject to learn and teaching it is quite difficult because the key points are outdated and I have to include other information somehow which is sometimes not reliable. Some of it might be difficult so I find it very difficult to teach. I have to grasp all the new information and old information into one. That's why in finding a good activity for the lesson is really difficult".

2.2 View of topic taught

"But for today's lesson, bank loan is a difficult topic".

2.3 View of how they want to teach

3 How do you prepare your lesson?

I first look at the scheme of work, and then discuss. For example, later I will be teaching about bank loan. So I am going to use a Singapore book. Because the book that is being recommended is so old and many of the information are so outdated. So I used the form 4 book and I extract information that is suitable for my students.

2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

I have to interpret them because many of the students don't understand the notes. So I have to translate in Malay. I have to note their vocabulary. So sometimes, at the whiteboard, I will write the meaning of the word. They don't understand the meaning of the text. So sometimes they don't understand English so I tend to use Bahasa Melayu. It is difficult for them and they are only form 2 students. right now, the teacher recommend me to either provide them with handouts or make them write. so I have to write on the whiteboard and make them copy because she said that some information in the textbook is not updated. But I prefer giving them handouts because save time and I could do designs that are interesting.

3) How do you structure your lesson?

[Probe for the methods/techniques used to make the lesson more explicit to their students]

For introduction, I just recall back, like bank overdraft. Then I introduce the topic today which is bank loan. so after that is questionings like do you know bank loan? 'what is it? Can you give me the answers? or express in your own way'. So from there, we might know their understanding of bank loan. but simple understanding which after that I will cover the topic. I'm trying to find ways to make them understand a topic like certain topic are a bit easy. Like last time,

I was teaching types of accounts. So I asked them to ask their parents or relatives of what types of accounts. They have to do that assignment in groups. But sometimes the information was different for example fixed deposit was not in the book, so it was difficult to explain. Some said have cheque books, so I say that you don't have to worry about this. It is just general information. So it was ok. But for today's lesson, bank loan is a difficult topic.

4) Where did you get your resources for the topic?

[Probe for other resources other than textbooks]

From that blue book, form 4 commerce book and the old book of commerce. I don't get any handouts from the cooperating teacher. I don't share with my friends because I'm the only one teaching form 2 commerce in Belait. It was last minute they gave commerce to me. So I was struggling to find resources to teach because I just knew about the level of students that I am teaching but so far it has been ok, for example cheques, so next lesson, the students will make cheques. For accounts, I give them brochures.

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

for today's lesson, my aim is that the students will know about the lending of money by banks.

3.1 The way they teach in class

Zahrah, kb, 28/2/05

- 925 tch recaps 1 minute by using questionings.
Tch: the key word for bank overdraft is?
Stds:
Tch: ok now, tell me is bank overdraft short term or long term borrowing? Short term borrowing. Is the interest low or high? yes, short term borrowing, that's why it is high interest
- 926 tch: ok now today's lesson, we are going to learn about bank loans. Now, could you some of you, do you know bank loans? Yes Daniel do you know? Last time we learnt about what is bank loan. it is supposed to be?
- 927 Tch: yes, lending of money from the bank. Long term or short term?
Std: long term
Tch: long term. usually bank loan, if we want to pay back, kalo kitani mau bayar balik hutang tani to the bank, usually take time, take longer time, maybe more than a year, kadang2 lebih dari setahun, ok?
Tch: wrote long period
Tch: That's why it is known as long term borrowing
- 928 Tch: Ok now, which of these two types of borrowings have high or low interest
Bank overdraft has low interest, while bank loan will be high or low? Students?
- 928 std: low
tch: why? Bank overdraft is short and has low interest, so bank loan?
bank loan have high interest because you pay back at long period of time, orite? Now
- 929 tch: how do the interests being charged? Well, for bank overdraft, the interest charge hmm..the actual money withdrawn but for bank loan quite different. The bank charge interest on the money that u borrow. The whole amount of money, lets say u borrow money \$10000 from the bank. The 10000 ur money, will be charged interest. Ok, whereas for bank overdraft, if you are the current ac holder, you have \$5000 in your ac. So u want to withdraw money, overdraft money 2000 so the 2000 will be charge interest. Not the 5000. Ok? So that's the difference. Bank loan the whole amount of money. U borrow 10000, 10000 will be charge. If bank overdraft lain, if you have 5000 in ur ac, 2000 saja kena charged.
- 932 tch: for example, ron borrow money 2000dollars, for a year, 8% per annum. Now, how do you calculate the interest? Daniel?
- 933 st ds: silence
- 934 tch: the amount of money borrowed $2000 \times 8\% = 160$ so this is the amount of interest (tch wrote on board). So the total amount u have to pay back in a year. How much? Aisyah
std: silent
- 935 tch: wrote $2000 + 160 = 2160$. so this is the total amount of money that ron has to pay a year. So compare to overdraft, which one is high or low? Bank overdraft. Low rite. Whereas bank loan charge high interest.
- 937 tch: for bank overdraft you have to be customer, but for bank loan, you don't have to be. But depends on how you pay back

tch: wrote on board: bank loan does not have to be the customer of the bank
tch: now, last time we talk about security. What is security?
Std: silent

938 tch: in your own understanding? Security?
Tch: if you are a banker, what do you want from your borrower? So what do you want them to do if they cannot pay back? Gadai barang. Aa..gadai rumah. So u know now? Security?
940 tch: now, for bank loan, there is a formal procedure. What is procedure?

Tch: you have to fill forms, and all of ur personal data to the bank. That's why the difference bank loan and bank overdraft. Bank overdraft, you are the customer of the bank, they don't need your details, whereas bank loan, if you are not the customer, you have to fill up the form and tell them, your data and everything. And for bank loan, the bank also need references. People will tell about you. Such as your parents for example. Org yang tau pasal peribadi kamu ani jadinya ibu bapa kamu kah, saudara kamu kah, close relatives. Ok, get it? Sure?

942 tch: I want you to write down this one. (write on the board)
References a person who provides information about your character and abilities for e.g. your parents/siblings, close relatives even your boss
Std: write down in their books/ handouts

945 tch: now class, do you understand these notes, look at this faqs, now, for the bank loan, how long does it take for the lending of money? Jai?
Tch: is it usually for long or short?
Std: long
Tch: yes, long period of time. Fatriana, so it is also known as? long term borrowing.

946 tch: now which of these two types have high or low interest? Mana satu yang high or low kena charge?
947 tch: overdraft high interest because? Daniel?
Tch: short period of time whereas bank loan? Is long period of time you'll be charge?
Tch: low interest, get it?
Tch: now, move on. How do interest being charged? Camana interest kena charge?
Tch: Bank overdraft?
Std: actual amount of money
Tch: actual amount of money, thank you fadzil
Tch: farah, for bank loan? How is it being charged? Actual or the whole amount of money?
Farah: whole amount
Tch: whole amount of money, ok?
Tch: next, who can borrow? Siapa boleh minjam? Bank overdraft?
Tch: the current account holders, so the bank loan?
Tch: yes, it does not need to be customers of the bank

948 tch: now for both bank loan and bank overdraft, need to provide security. If u don't provide security, the bank will not loan you money. Kalau kamu unemployed, will the bank pinjamkan? Yes or no? why?
Tch: because you have no job. That's why. You don't have security

949 tch: now, for the bank loan, it is only suitable for a person who wants to borrow large sum of money. Kalau kamu kan build a house, a businessman, you need a lot of money. So that's why they apply bank loan. To? Finance. What is finance? Daniel? In your own words. Finance your business? Give? Give income

952 tch: wrote factor on board
the banks have to consider the following factors for interview. To give you bank loan
tch; the first one is the bank will want to know about your characteristics. Will the bank offer you loan?
Std: no
Tch: why? Because you are jobless. You don't have any work

953 Tch: the second one is purpose. Why do you want to have a loan? For example, you want to buy?
Tch: expensive things. Car? House?
954 tch: the third one is nature of security. For example, house, cars
954 tch: applicant has the ability . kira bayar balik
the fifth one is the repayment of the loan. How long you are able to pay back. One year, two years, 5 years.

956 tch: now your activity is on Wednesday I want you to ask your parents type of goods

957 end of lesson

3.2 Their reflection of teaching

3.2.1 The lesson

Now, I want to talk to you about how you taught just now (after lesson observation)

6) How do you feel about the lesson?

It is not what I expected. I haven't really discussed the factors in considering granting people for loans. Actually I want to discuss and give examples but time is limited. It was only one period (sigh).

7) Were you pleased with the way the lesson went?

At some point, I think no. because the students still don't know how to use the notes that I gave them. They don't really look at the notes and read. They are always waiting for me to explain. So it is really frustrating. But then that is how they work.

The notes just now were to fill in the blanks. So the kids don't know what to write there. They will wait for me to write the answers on the board or I talk.

Did it work out the way you had expected?

Yeah. Somehow yes, somehow no. yes to mean that I just recall. I did questioning which is I discuss the bank loan. They know what security is, security was the other thing. So that's what I am really satisfied. What I'm not satisfied is they don't really know how to complete the notes. Some didn't know what to do. So somehow in my lesson just now, I have to discuss again how to do and I have to repeat again and again. So affecting the lesson. I could have covered other things that I want to discuss.

The subject teacher said that it might take me only one period to discuss bank loan and bank overdraft. But when discussing with them the first time, I discussed about bank overdraft. They don't know about security and all the other terms, so I have to again discuss with them. So more time explaining in malay terms that they know and in English terms, somehow I have to take time writing down on the whiteboard. And I am teaching form 2A which is the best class among all.

8) If you are doing the lesson again, is there anything you would like to change?

Just now, I have discussed with my supervisor. I should more teaching aids. For example, like security. I should show pictures ..like how the pictures of household. ...so the students will say..'ohh..that's how it works'. So now I realized that I should have that kind of thing. So might be in the future lesson, I have that kind of evidence like teaching aids. So next time I should add more teaching materials.

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

I have interviewed the students because they seemed to be like bored, restless during the commerce lesson. So I asked them how they feel in learning commerce? So most of them say its boring. Its very difficult to understand. So I ask them how do they want me to teach them? So one of them say 'can you teach us in malay please?'. So I just say I am trying my best actually. I cannot teach them in Malay. I have to teach in English. But somehow I prefer to use both. English and Malay so that they have wider understanding. If they don't know the words, I'll give them the meaning. If they don't know some of the points then ask me and I'll come to them. That's how I really want say because it is a difficult subject.

10) Do you think you have learned anything new about teaching from the lesson?

For myself, actually in studying commerce. For commerce student, I feel commerce is a difficult subject to learn and teaching it is quite difficult because the key points are outdated and I have to include other information somehow which is sometimes not reliable. Some of it might be difficult so I find it very difficult to teach. I have to grasp all the new information and old information into one. That's why in finding a good activity for the lesson is really difficult.

11) Do you think that your students have understood what you have taught just now? How do you know?

This I cannot answer because I couldn't question them at the end of the lesson. If previous lesson yes, based on the exercises I give. Usually after the lesson, I ask do you understand today's lesson? If they say yes. Yes. If they say no. then I ask why you don't understand? Some of them say difficult. So I ask where is it difficult? Why? Which area? If you don't understand, if you are still in difficulty you'll not be able to answer the test. Ok. Is it ok? So I discuss with them. So this how to understand whether students understand or not.

12) Have the students enjoyed learning the topic? How do you know?

Today's lesson, I think most of them are quite bored just now. Because it is only bank loan. they actually will have fun if I give crossword puzzles, matching item, and group activity. Which I am not able to give for today's lesson. But previous lesson. Yes. They enjoyed it. I gave group activity for types of accounts. And then the crossword puzzles for means of payment and services of the bank.

3.2.2 In general

How do you usually introduce a new concept or new topic in the lesson?

I remember this lesson I give. That is banking. I introduce them by questioning them 'If you go to the bank or you are parents or public or the businessman. Why did they go to the bank?' So they answer, 'to save cher' again, what did they do? 'Keluarkan duit cher'. Ok. Keluarkan duit. So I just list down all the things they do. What else I ask, for the business. 'They want to have the money cher.' In terms of what? Borrow cher, borrow. Pinjam duit cher, pinjam'. So some of them would say in English. Some of them speak in Malay. Because they are mixture of Chinese and Malay. Chinese will answer me in English. The Malay will answer in Malay. After they inform me the answer. Then I say 'now all of this is banking'. Then I'll continue with the lesson with questionings.

For all your lesson, do you ask your students to give their own examples and explanation?

Yeah, I'm trying. But usually they tend to look at the books and read the explanation. If they want to explain, they explain it in Malay. Examples, like if you are a banker. If you are the bank, what do you want people to pay you back? Then they say 'house cher'. Some of them said 'land' some of them say 'duit' (money). All the things their own examples, they say 'House Cher...' some of them say 'Land' some of them say 'Duit' (money).

Where did you get your teaching materials from? Sources? Do you use the internet?

Ok. Basically most of the teaching material I get from the textbook. This is recommended by my subject teacher. The internet, actually I haven't found yet. But geography already. Most of it geography but commerce, no. because if I use the internet, I'm afraid I wouldn't catch up. So mostly, it is for work activity.

So how useful is the knowledge from university in your teaching?

For me economics is quite different because I didn't teach economics. But somehow, I learnt something from education, such as how to do good lessons, how to do assessment. But I haven't been able to do what I have learnt from MOT economics. The way the lesson based on variation theory, it is difficult for me for to perform. Like in MOT economics I, we did peer teaching, we did group activities. But in real situation here in teaching commerce, only certain topic can do work activity. Like types of account. I ask them to find brochures and conclude what they get from the information that they gathered. so the lesson advertisement, I would let them find more advert, so that they can display their ideas. Why do they advertise?' so it is helpful what I learnt from SHBIE, yeah most of them help me to discover, only certain lesson, not all.

What do you think is your main problem in teaching commerce?

My problem is my own pronunciation. But somehow I use bilingual. Sometimes Malay sometimes English. This is fine for me. Macam if I talk English, English saja. Some of the students looked dazed. They said 'cher, nda paham cher' (we don't understand). 'cakap melayu cher' (speak Malay). Which I explain in the first lesson of teaching commerce. They don't understand what I am talking about in English. Ok, now I have to back and explain to you in Malay. And they would say, 'yea!'. I told my cooperating teacher about this. She said, yes, it's true. You cannot do what you learnt at UBD. In real class, you cannot expect to speak English and they can understand. They are still form 2. So you have to explain in Malay as well. Because English is our 2nd language. So you have to try your best.

It's the same with Geography which is worst. Somehow I'm sorry to say that Geography is not suitable for their own ability. Some of them find it difficult to understand. With geography, the textbook is published in Brunei. And my ct said that it's the common problem that we are facing. It is difficult. So I have to use other resources for teaching and my cooperating teacher agrees.

In commerce, I am also facing problems with finding suitable aid. That is posters, brochures, and can be used only for certain topics. Some of the topics, I could not. It is hard to find.

What about the students' understanding?

Yeah. That's the problem at the end of the lesson. Sometime I may ask few students to answer my questions. But the problem is I wouldn't know that all my students understand the lesson. So that is the problem here. So the only way is to give them classwork, which sometimes the problem again time constraint. The main problem again, they know the answer but they usually answer it in Malay.

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

3.1 View of economics

I: Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce. Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

F: There is little connection between economics fbeps and commerce in school. But I was lucky to have my experience as a commerce student during secondary school. Walaupun lama, tapi dapat ku refer notes2 ku dulu pasal masih

samakan syllabusnya (I can still refer to my old notes because the syllabus is still the same). In doing the lesson plan, I can relate and questioning the students, I can apply. But there is no connection between economics and commerce.

I: Finally, from your point of view, tell me what does it mean to learn economics?

F: To learn economics, micro and macro. I don't have any background in economics. I don't know why I took economics. Rasanya, after I learn economics, I can explain when I read newspapers. I think that's all.

3.2 View of topics taught

I: I want you to tell me about your experience from your teaching practice.

I: First, I want you to tell me about your experience of teaching the lessons. What was your favourite or least favourite topic to teach? Why?

F: Favourite topic was advertising and least favourite was functions of the bank. Advertising is because it is easy kan, easy to get the resources, macam its our knowledge jua bah, macam senang, advertising means iklan, its all around, and ask students questions, its easy bah. Least favourite functions of the bank. Basically, they know what is a bank. The functions, the services, they don't know, so I have to ask them to ask their family. durang kepayahan the words mainly. Last time, advertising I teach using powerpoint, pasal senang mengambil bahan2. my fren did help me. Waktu itu, students meliat dulu apa advertising. I use lots of aids like posters, and I did ask them before advertising, I instruct them at home any advertisement they can find and bring to class the next day. The next day, at the end of the lesson, they showed what they found and I classified according to what I taught before.

I: What was the best lesson that you had taught? Why?

F: The best lesson was advertisement. Because of the power point. And students liked the power point.

I: How did you prepare to teach topics that you haven't studied?

F: I am familiar with all the topics because I took commerce form 1 till form 3. That's why now, I tried to make them understand, so I create questions and puzzles, crosswords so that they are interested.

3.3 View of teaching

I: I want you to tell me about your experience from your teaching practice.

I: First, I want you to tell me about your experience of teaching the lessons. What was your favourite or least favourite topic to teach? Why?

F: Favourite topic was advertising and least favourite was functions of the bank. Advertising is because it is easy kan, easy to get the resources, macam its our knowledge jua bah, macam senang, advertising means iklan, its all around, and ask students questions, its easy bah. Least favourite functions of the bank. Basically, they know what is a bank. The functions, the services, they don't know, so I have to ask them to ask their family. durang kepayahan the words mainly. Last time, advertising I teach using powerpoint, pasal senang mengambil bahan2. My friend did help me. Waktu itu, students meliat dulu apa advertising. I use lots of aids like posters, and I did ask them before advertising, I instruct them at home any advertisement they can find and bring to class the next day. The next day, at the end of the lesson, they showed what they found and I classified according to what I taught before.

I: What was your favourite resource?

F: I only used that old commerce book. But the syllabus is there.

I: What was the best lesson that you had taught? Why?

F: The best lesson was advertisement. Because of the power point. And students liked the power point.

I: How did you prepare to teach topics that you haven't studied?

F: I am familiar with all the topics because I took commerce form 1 till form 3. that's why now, I tried to make them understand, so I create questions and puzzles, crosswords so that they are interested.

I: Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

F: yes. Basically lots of topics. For example functions of the bank, my activity was that I asked the student to go to the bank with their mom and relatives and siblings and I asked them to get brochures and I create questions like I asked them about the services of the bank. Like advertising, yes, like I ask them, about whether there are any advertisings in Brunei. i did group activity after the power point. I want them to discuss and I give them a product, and I want them how they are going to promote the product, and they discuss among themselves and they present to the class. They like it, they design it. Because most of the girls like to design. I give them manila card, and a chocolate bar. And they create their own product.

I: How did you assess your students' understanding in the lesson? What do you do if your students didn't understand?

F: Most of them, I used open ended lesson at end of lesson. Or beginning of lesson to recap. I assess them by giving them questions or quiz like fill in the blanks like crossword puzzles, mcq. I did only one test saja, somehow yang nda berapa couldn't score. So I had to ask them to see me. One of them said that they don't understand English. They want me to teach in malay. But I told them I can't, so what I did I just coach them during break time.

3.4 View as a pre-service teacher: learning to teach economics/ commerce

I: Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce. Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

F: There is little connection between economics fbeps and commerce in school. But I was lucky to have my experience as a commerce student during secondary school. Walaupun lama, tapi dapat ku refer notes2 ku dulu pasal masih samakan syllabusnya (I can still refer to my old notes because the syllabus is still the same). In doing the lesson plan, I can relate and questioning the students, I can apply. But there is no connection between economics and commerce.

I: What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

F: It was fun. My supervisor helped me a lot. My ct, I have 2. one subject teacher and one cooperating teacher. They always promise to come so I prepared a lot. But they only come sometimes, and they sometimes come late during the lesson and miss the activities that I did for the class. They didn't help much in my teaching. I discuss with my frens and my frens helped me lah. mostly, my ideas are my own lah.

I: What else did you learn from your teaching practice? [probe for the role of schools and community]

F: I learned that being a teacher not only teach saja, but I have to learn how to control students. I have to ask other teachers how to control students especially the problem classes but this is with geography, not commerce. Macam commerce, class baik2 so I don't have problems.

I: Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

F: I found intro to education and teaching helpful. I learned the content myself, but the pedagogy was helpful like how to use the powerpoint, do lesson plans from mot economics and mot geography.

I: What other experiences that you have had that have affected how you think about teaching economics/commerce?

F: I don't think so.

I: Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?

F: I think that a lot of teaching aids, create more pictures especially form 1 and form 2. they all like crossword puzzles, and commerce class is for good students and they like to do them. Commerce they said boring maybe because they don't understand, so we have to make it interesting.

I: Finally, from your point of view, tell me what does it mean to learn economics?

F: To learn economics, micro and macro. I don't have any background in economics. I don't know why I took economics. Rasanya, after I learn economics, I can explain when I read newspapers. I think that's all.

3.5 View of relating economics knowledge to teaching

I: Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce. Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

F: There is little connection between economics fbeps and commerce in school. But I was lucky to have my experience as a commerce student during secondary school. Walaupun lama, tapi dapat ku refer notes2 ku dulu pasal masih samakan syllabusnya (I can still refer to my old notes because the syllabus is still the same). In doing the lesson plan, I can relate and questioning the students, I can apply. But there is no connection between economics and commerce.

3.6 View of school economics/commerce

I: Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce. Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

F: There is little connection between economics fbeps and commerce in school. But I was lucky to have my experience as a commerce student during secondary school. Walaupun lama, tapi dapat ku refer notes2 ku dulu pasal masih samakan syllabusnya (I can still refer to my old notes because the syllabus is still the same). In doing the lesson plan, I can relate and questioning the students, I can apply. But there is no connection between economics and commerce.

I: Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?

F: I think that a lot of teaching aids, create more pictures especially form 1 and form 2. They all like crossword puzzles, and commerce class is for good students and they like to do them. Commerce they said boring maybe because they don't understand, so we have to make it interesting.

Lesson Plan: Zahrah

Lesson Plan

Name of Pre-service teacher: Zahrah

Date: Monday, 28th February 2005

Duration: 35 minutes

Class: Form 2A

Subject: Commerce

Topic: Banking and Finance

Sub-topic: The Lending of money by a bank

Learning Objectives

By the end of the lesson, students should be able to:

- Identify and describe the lending of money by a bank
- Distinguish and describe the differences between a bank overdraft and a bank loan

Teaching Aids

1. Textbooks
2. Handouts

Lesson Content Outline:

1. Introduction (2 minutes)
 - Recall back the previous lesson on overdraft
2. Lesson development (25 minutes)
 - Discuss with the students about the lesson content (bank loans)
 - Activity: Students completed their handouts and exercise from their textbooks.
3. Lesson closure
 - Recap the whole lesson

**Appendix 10 (A10): Transcripts of Charles
Charles
Commerce
STAGE: ONE – Early stage of TP**

1. Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

1.1. View of economics/commerce

CH	Form 1-3 (lower secondary)	Form 4-5 (O-levels)	A-levels	UBD (major/minor)
Commerce	No	No	No	No
Economics	No	No	No	Yes (minor)
Options	Agricultural Science	Agricultural Science	MOB (Management of Business)	History (major)

Favourite and least favourite of undergraduate economics courses

I prefer macro economics compared to micro. Its much more simple and general. Micro, lots of numbers, graphs, figures. Least favourite is micro.

What do you feel are your strengths in economics? What do you feel are your weakness in economics?

My weakness is I am poor in graphs. I'm struggling actually with economics but I'm trying to improve myself. I'm not sure about my strengths. I am really poor in maths so I struggle with the questions.

What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?

I expect an expert in economics to know up to date economics and explain it to us. And also know the calculation and predict what will happen.

1.2 View of economics teacher

Who was your best and worst economics teacher you ever had? Tell me about them. [probe for their way of teaching economics]

The best one was he used concept maps, he taught macro. So easy to follow. I like his style.

I don't like the one who taught intro to micro. I don't like because she just put up graphs and explained, she didn't think that some of us are beginners and we were struggling with the concepts. She asked questions and only some answered her, so she took for granted that everyone understands the content. So that's why I had problems with micro.

What made you decide to become an economics teacher? [probe for both reasons for teaching and reasons for teaching economics]

I became a teacher because of the security for the future. Actually, I took TESL (teaching English as a second language) minor earlier, but I flunked in the exams. I had that for 2 semesters and so I said I 'd better changed before it pulls down my average grade, So I changed my minor to economics. But when I took economics, it was easy to understand actually.

Now, that you are an economics teacher or commerce teacher, what are your goals for your students?

Understand. Able to apply their knowledge in their everyday life. They can relate to local examples instead of me giving international examples, I want them to give me local answers. If they are able to do that, then it means they can understand my teaching.

What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics/ commerce easier for students? [probe for economics knowledge and the way of teaching]

One typical problem is that the students are not interested and no knowledge of the concepts, for example, when I asked them whether they have bank accounts, they said no, we don't have, but I asked them to ask their parents, and only then they know that they have an account. So if they are exposed to this environment, it is easier for them to answer. From my point of view, the terms and the names of the documents are quite long and difficult for them to understand. So its language problem. So to make it easier, I had to use bilingual. I had to use malay to re-explain to them. So when they answer in malay, I told them to answer in English. They are able to do it eventhough slowly.

Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you use? Are you familiar with the topics and books? Have you read them before? How are the students in your classes?

Commerce. Only one class. There are 23 class, mix boys and girls. There are more girls than boys. The topics, foreign trade, banking, the ledger. I only use the brown book and the form four books. At first, I was not familiar, so the ct (co-operating teacher) gave me the syllabus and scheme of work. But some were not found in the books, so I had to ask my cousin, and he gave me some notes when he was a student. In the class, the girls were alright, the boys at the back tend to talk and they like to wander away.

1.3 View of pre-service teacher

Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

I don't really think about the future. I thought teaching was easy. But when I went to school, I have to do lesson plans, and that , and this. I always thought teachers life is easy. Once I enter uhd, and enter shbie courses, and then go to school, I have to do so many things. And that kind of thinking has changed.

Stage: 2 (Teaching Cheques)

2.1 Preparing the lesson

Charles was teaching commerce to Form 2 classes consisting of 13-14 year olds students. The topic for that day was about cheques. The class consisted of 26 students. The lesson was for 1 hour and 10 minutes. In his lesson plan, the first thing he would do was to review the previous lesson which was about bank loan and bank overdraft. He planned to do this in 10 minutes. Then, he planned to only use explanation and question and answer for the rest of the lesson. The sub-topics that he would explain include other services provided by the bank, the characteristic of a cheque, the differences between bearer cheque and opened cheque and the three types of endorsement. He planned to spend 55 minutes to cover all these topics. Finally, for the last 5 minutes, he planned to recap and give classwork to his students. But the classwork would be done as homework if the time was insufficient.

The resources to be used in the lesson were handouts. The handouts had been prepared by Charles. The content of the handouts came from the textbook. Charles explained that he had to simplify the textbook for students' understanding. The textbook used was a commerce textbook intended for a higher level commerce which was used for 17-18 year old students. The textbook was also not local, and therefore the examples given in the textbooks were foreign. Charles had to use local examples such as local banks' cheques for examples in his handouts.

2.2 Teaching Cheques (10.13 am-11.20 am)

10.13 today we are going to look at the services provided by the bank
ok, last class we talked about borrowing what types of borrowing did we talk about? Bank overdraft and?
Std: bank loan
Tch; ok
Tch: are they the same thing?
They are not the same right?
Ok you, bank loan, can you remember about bank loan?
Std: long period
Tch: what about bank overdraft?
Std: short period
Tch: good
Tch: hanif, the interest charge for bank loan, is it higher or lower?
Std: lower
Tch: lower kan? Higher
Tch: bank overdraft? Lower
Tch: bank loan is usually longer. It takes years to finish up bank loan. Orite?

10.15 tch: then we look at the three services provided by the bank, standing order, credit transfer and direct banking

tch read the definition of standing order

1016 tch: what it means that, ur salary is 2000dollars so u go to the bank, and ask the bank to pay your carloans, credit cards, etc.

tch: what it means you have a sum of money and you go to the bank, the bank will pay ur bills for u. for example, car loans, electricity bills, gas bills, house loan, telephone bills. so the bank will settle for you. So you don't have to go to jtb, dst, and other places. Clear now?

1017 tch read definition of credit transfer

tch: one good example for this is government servants ok pegawai kerajaan. Who pays their salary? To the people working in government. The government right? The ministry of defence? Correct. do you think that the government issue cheqs everyday? no What the government do is the gov bank in their accounts. So for example teachers, lets say their bank account is ibb so every month they will just check ibb and they will know whether they get their salary or not? understand? So the government pay the money to ibb and ibb will put the money into their bank account. So this is credit transfer. Understand?

1019 tch read definition for direct debiting

1020 tch: now standing order and direct debiting are more or less the same. Kurang lebih sama. What happen here is that standing order, the date is fixed. For example, on the 10th January, the bank will pay everything for you. For direct debiting, there is no problem. U can go, on the 16th, 17th or anytime u want within a month. Lets say u receive ur salary, and ask the bank to pay ur bills anytime. So do u understand?

1020 tch: so there are three types of services provided by the bank, standing order, credit transfer and direct debiting. Now, are these the only services provided by the bank?

Std: no

Tch: what are they? Can u remember? Ok, if you go to the bank, what do you do in the bank?

Std: take money

Tch: withdraw money. What else?

Std: masukkan duit

1021 Tch: deposit money. What else you see, the board with numbers?

Std: atm

Tch: what else, the one with numbers and currency

Std: currency exchange

Tch: currency exchange. Very good

Tch: any more? What can you do? If u don't have money, what do you do?

Std: borrow

Tch: yes you borrow from the bank. You can apply bank loan. so there are a lot of services provided by the bank. And we touched on that the last class. Today, we just touch on three. Actually there are more

1021 tch: so today, we have to finish on the topic banking. Any questions on banking so far?

1021 stds: no

tch: alright, we have touch on central banks, the functions of banks, services provided by the bank and the types of borrowing from the bank, bank overdraft and bank loan. so any questions?

Std: no

1022 tch: now we will look at cheques today.

Tch give handouts to students

1024 tch: ok we talk about cheque last class. So this a picture of a cheque (a big sample cheque of one million dollar).

Tch: now if you look at the cheque in your handout, the format is the same

1025 tch: no 1, the date is important. It will tell you when you can cash the cheque

tch: second one is drawee. So if you want to cash this cheque you have to go to hongkong bank

tch: the third one is drawer. You are the drawer. The person who draw and sign the cheque. So I sign the cheque, then I am the drawer. Clear?

Tch: the payee the person name on the cheque. So this one. Who am I paying to? So I can put the name of whoever I want to give. Alright?

1026 and then you have to put in the correct number here and u write the spelling of the number here

1027 this is the account number and here is the number of the cheque. So clear?

Any questions?

Std: no

Lets say if I put 100 sini and then here I put 1000 dollars, can I cash the cheque?

Stds: no

With this cheque, can I go to standard chartered?

Std: no

1028 Tch: yes, I can. I can go to standard chartered and cash this hongkong bank cheq. After few days, the money will be deposited into my ac. Clear? But if u want to cash the money on the spot, you have to go to hongkong bank, but u cannot cash this in std charterd bank on the spot. so you have to wait for few days for the money to be deposited into your account. Clear?

1030 tch: now, you know how a chq look like. But what is a cheque? So look here

1030 tch read the definition of cheque from handout

1050 tch tells student to group in pairs or threes (8 groups)

1054 tch: one of your fren, businessman, now what I want you to do is, one fren will write lets say for example, irfat owe ahmad money, what is your bank, what bank you are using, what is your account no, and how he owe you. And what ahmad will do, ahmad will issue a cheq, get a piece of paper and you draw a cheq, ok. You draw the cheq like this. So those in 3 in one group, ahmad will write to arif, how much arif owe him, and ur name and also your account number. So you write a cheq and give it to him

1056 tch: the rest understand? Know what to do?

1057 tch explains to another group orally

tch: no 2, is you have to decide to endorse the cheq or not

1058 tch: I give you 15 mins to do all this.

1059 tch had to explain again to another group

1100 tch moved on and explained again to another group

1102 tch explained again to an earlier group of students

1103 tch moved on again to explain to another group

1104 tch explained to another group

1120 lesson ends. Stds submit the imaginary cheques to teacher.

2.3 After the lesson

Charles was quite satisfied with his lesson. He was pleased that the students were cooperative in the lesson and that his objectives were achieved. However, he realised that he had finished 30 minutes earlier than expected. But he was quiet proud with himself that he had come up with the last minute activity for the students. He was pleased that the students were cooperative in doing the activity. Charles was happy that the students were interested in doing the activity and he enjoyed students' participation in the classroom. If he was doing the lesson again, he would include more sub-topics and prepare more exercises to cover the extra time.

Charles had learned so many things from the lesson itself. He was not familiar with the topics; cheques and endorsement as he did not even have a cheque book himself. Therefore, the lesson content was new to him.

Charles did not take commerce in lower secondary. He also did not learn any commerce at the university where he only learned economics content and the methods of teaching for economics. Charles viewed commerce as more general and easier compared to economics.

Charles was satisfied that the students have understood the lesson as students answered his questions during the activity. He thought that the students have enjoyed the lesson because from his experience in teaching the class, the students have always enjoyed doing the things that he taught them.

Charles only used one textbook for teaching resources. Students also have this textbook. But Charles only used handouts with the students in the classroom. He said that he would simplify the content from the textbook and gave them as handouts to the students.

In teaching commerce, Charles commented that he needed to apply general knowledge. He found that he had to use his pedagogical knowledge of psychology, such as how to motivate them. He wasn't sure whether his knowledge that he learned from methodology was applicable to his teaching practice. His experience of peer teaching at the institute was different as he was teaching his friends with complex learning activities. In real classroom, he wanted the students to understand so he had to teach in simple terms and use simple activities.

- CH: I'm not quite sure about method of teaching because what we experience at UBD (university) is totally different from here. Especially our peer teaching at UBD. U can't apply in this school because at UBD, our students are our friends.
- I: ok
- CH: Yeah. So..they're higher. They are able to think easily. Students here, they have limited ability only
- I: Mhmm...
- CH: So its difficult to apply
- I: Even the activity?
- CH: Activities have to give a simpler activity
- I: Right..
- CH: Yeah, some activities have to be simple. Like at UBD, we can use complex activities
- I: Mhmm
- CH: And terms, words, instructions should be very clear for students to follow

Charles problems with teaching commerce:

- a) Charles realized that he needed to simplify his content knowledge to teach students. He needed to adjust the level content to suit the students' abilities.
- b) Charles had to use bilingual a lot to make students understood of what he was teaching. He had to use Malay (national language) words and explain in Malay.
- c) He also realized that students' general knowledge on Brunei's economy was lacking which made it difficult for Charles to relate subject content to students' experience.

Comments:

Charles was employing didactic approach in his teaching. He relied heavily on the explanation using the handouts. He was transforming his knowledge by telling the students of what he knew. Students were expected to listen to his explanation. This kind of teaching might be based on his own experience of learning during his schooldays (Eraut, 1994). All his points that he wanted the students to listen were spoken orally. He did not illustrate his points visually therefore the whiteboard was barely used in his teaching. There were too many objectives for the lesson that he wanted to achieve. However it seemed that he only emphasized the features of the cheque as his main objective for his lesson; students had to answer questions regarding features of cheques for their classwork and students had to do an activity creating a cheque.

The activity was actually a reproduction of the classwork itself. But the instructions for the activity themselves were made complicated and hence, students got confused and did not know what to do. Besides features of cheques, the word 'endorsement' was also an important concept. Charles did not seem to realise that students need to understand the concept of endorsement in the lesson. The lack of syntactic knowledge to deliver the content and his only partial understanding of substantive knowledge of commerce as a subject have affected the way he wanted to transfer his understanding of his knowledge to the students.

Charles made an effort to analyze and simplify the textbook for the handouts. He prepared the handouts for the students' understanding. The handouts were his ways to communicate his knowledge to the students. However, I noticed that his lack of substantive structures in the characteristics of cheques was affecting his teaching. For example, he doesn't know what a real cheque looks like and this has affected the objective of the students' activity. The role-play activity for the students was supposedly easy to understand, yet, again his lack of substantive and syntactic knowledge had made the activity difficult for the students to follow. In the activity, the students in each group had to be told what to write in their imaginary cheque by Charles. The objective was to write an imaginary cheque. However, students were confused with the instructions and had to be told by Charles repeatedly. As an observer, I was also confused by his instructions and found that his lack of pedagogical repertoire had affected the activity as a whole. Therefore, his lack of substantive structures in cheques should have made him prepare more before he taught the class.

In the classroom, he represented his knowledge through explanation. Yet, his lack of pedagogical repertoire had affected his way of explanation. Whether it was on purpose or not, with or without his knowledge, Charles had delivered the subject content by 'telling the students' of what he knew without knowing the students' understanding. The whole lesson was about explanation of cheques and there was lack of students' input in his questions as he answered his own questions.

Name: Charles

STAGE: THREE – after TP

3. Conceptions of using subject knowledge to teach

3.1 I want you to tell me about your experience from your teaching practice. I want you to tell me about your experience of teaching the lessons.

3.1.1 What was your favourite or least favourite topic to teach? Why?

My favourite topic was banking. It was quite simple, straight to the point, I don't have to give detail information because they are familiar with the topic, its part of their daily lives. It was easier to teach. I don't like teaching ledger, double entry. I don't have background on that, so I had to study on my own, asked my ct, asked my frens, and then I got through, but I struggled. I was able to teach well, and my ct came, and she said it was alright.

3.1.2 What was your favourite resource?

The only resource that I used was the textbook. Different kinds of textbooks actually. And sometimes notes given from my frens who took commerce before, so I just improved the notes. And also the notes provided by the department, from my ct lah.

3.1.3 What was the best lesson that you had taught? Why?

The best lesson that I taught which was the topic that I don't really like which was the double entry. I find that the best because I am quite satisfied with my effort, and then it proves that everyone understood even though it was a struggle for me. I enjoyed the topic even though it was a struggle. My frens help me out a lot.

3.1.4 How did you prepare to teach topics that you haven't studied?

I have to read books, understand it well, because I don't like to look at the notes when teaching. I prefer straightforward, so that I want the students to know that the teacher is full of knowledge. I don't want them to have negative thinking of the teacher.

3.1.5 Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

yes, for example, banking, I asked them about local banks and they were able to give lots of banks in Brunei. and then, most of them, all of them can go to the bank, so they can tell me whats going on around the bank, so its easier. And then, when I taught foreign trade, they were able to tell me where the port is, the muara port, airport, they were able to give me examples.

3.1.6 How did you assess your students' understanding in the lesson? What did you do if your students didn't understand?

I assess them through questionings. I asked them lots of questions. At the end of the lesson especially, I would ask them questions of what they learnt, if they cant answer, I asked another students. Sometimes I give them hints, and then its quite around, I have to wait around 30 seconds, in the end, they will be able to answer the questions. I was also instructed to give classwork at the end of the lesson and homework at the end of lesson which I don't think its necessary as homework is always a problem. They will do the classwork but not the homework.

3.2 Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

3.2.1 Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

For commerce, I don't think I applied my knowledge that I learn at ubd. Because for commerce, it's a simple subject, which we use lots of common sense, but offcourse, we need a strong background, but then again, nothing much was used. My mots was useful. I had mot economics and mot history. So I mixed both of the methods.

3.2.2 What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

Actually, the cts help me a lot. I would go to ubd, and ask the lecturers for help, and they help me. The students actually gave me confidence. When they said that they can understand, it boosts up my confidence, and I'm proud of it.

My supervisor was helpful but I rarely look for them. My friends help me a lot because they are always around me, they helped me in my understandings, preparing my visual aids, like how is it, so they give me tips on how I should do.

3.2.3 What else did you learn from your teaching practice? [probe for the role of schools and community]
I learnt public speaking. I now have more confidence in talking in front, before, when I was at UBD, my first presentation, my whole body was actually shaking, that I can't even hold the paper, but then, during the time, I have more confidence in talking in front, so no more fear.
I think we are independent. The staff and principal were not really helpful. I've seen our table (relating to staffroom condition). So that's why. But in preparing teaching, we get free manila cards, marker pens, in that term, they are helpful to prepare our teaching.

3.2.4 Tell me how your courses at the university have affected how you think about teaching economics/commerce? To help you out, here are the titles of the courses. [Probe for the course of method for teaching economics/commerce]
Sociology helps a lot as we have to understand the people. The most important thing is psychology. We shouldn't put them off when we teach. It's really helpful. Methods of teaching were really helpful. For both most economics and history. I remembered when I taught commerce, I gave them questions, and they present, so it was a good experience for the students.

3.2.5 What other experiences that you have had that have affected how you think about teaching economics/commerce?
Not quite sure about that. Actually, I didn't have any background in commerce and economics. Even A-level, I only took math, which I did poorly. But then, once I start teaching commerce, it was quite easy to understand.

3.2.6 Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?
Maybe during math, I should advise local teachers to teach. This is because we have British lecturer. They are more into their economy. Their economy is important to Brunei but then we can't relate it to the students at school. If they give us ideas during teaching, we can simply make up our idea and we can relate what we learn and apply it at school.

3.2.7 Finally, from your point of view, tell me what does it mean to learn economics?
To learn economics is quite important. It's the role of the money right. We learn to be economical. Students need to learn that as well lah, because why, it applies to their daily lives. They are now in form 4 and form 5, so in the future, they might be someone important which they need to know simple stuff and international relations which we learn in economics which is important for them to know.

Lesson Plan: Charles
Lesson Plan

Name of pre-service teacher: Charles
Class: Form 2
Date: 17th February 2005
Time: 10.10 – 11.20 am (70 minutes)
Number of Students: 26
Topic: Cheques

Previous Knowledge:

- Students have an idea what a cheque is and also its function when they go through banking in the previous topic.

Aims:

- To help students be aware of the importance of cheque and its functions.

Objectives:

At the end of the lesson, students should be able to:

- List down the services provided by the bank.
- Identify the characteristic of a cheque

- Distinguish between the two types of cheques which is the bearer cheque and order cheque.
- Differentiate between the three types of endorsement.

Lesson content outline:

- Services provided by the bank
- Characteristic of a cheque
- Differences between bearer and open cheque
- The three types of endorsement

Procedure

	Content & Method of Teaching	Resources
Introduction (10 minutes)	<ul style="list-style-type: none"> - Teacher gain the students' attention. - Teacher questions the students individually on the previous lesson. - Teacher gives a brief explanation on what the students are going to do in the lesson. 	
Development Explanation & Questioning (20 minutes)	<p>Content A (Continuation from previous lesson)</p> <ul style="list-style-type: none"> - Teacher list down the other services provided by the teacher. - Participation from the students is encouraged by questioning on what others services are provided by the bank. <p>Teacher summarizes the sub-topic by questioning the students orally</p> <p>Content B</p> <ul style="list-style-type: none"> - Teacher explains the characteristic of a cheque to the students. <p>Content C</p> <ul style="list-style-type: none"> - Teacher discuss with the students on the differences between: <ol style="list-style-type: none"> Bearer cheques Opened cheques <p>Teacher summarizes the sub-topic by questioning the students orally.</p> <p>Content D</p> <ul style="list-style-type: none"> - Teacher explains the three types of endorsement with the students 	<p>Appendix 1</p> <p>Appendix 2</p> <p>Appendix 3</p> <p>Appendix 3</p>
Closure (5 minutes)	<ul style="list-style-type: none"> - Teacher sum up the lesson by recapping on the important points they have gone through in the lesson with the students by using questioning. - Teacher distributes classwork for the students but time is insufficient, it will be done as homework. 	Appendix 4

Students' Evaluation:

Oral Questioning throughout the lesson
Classwork/Homework

Appendices:

Appendix 1 – Handouts on services provided by the bank

Appendix 2 – Characteristic of a cheque

Appendix 3 – Differences between bearer and opened cheque and three types of endorsement.

Appendix 4: Classwork/ Homework for students.

Evaluation:

Appendix 11 (A11): Transcripts of Munira

Munira

Commerce

INTERVIEW QUESTIONS FOR PRE-SERVICE TEACHERS

STAGE ONE

Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

Stage 1

1.1 View of economics/commerce

First I want to talk about the study of Economics as a discipline.

6. Can you tell me about your background in economics?

Form 1,2,3, I took commerce, form 4 and 5, economics, and form 6, economics. A-level economics, payah lah.

Tell me also about your undergraduate courses: Favourite and least favourite.

Asean economics. Economy of Brunei is also interesting. Usually, kitani dangar oil and gas tapi rupanya ada lagi factors that contribute to the development of Brunei.

My least favourite is statistics. I'm not a maths student.

46. What do you feel are your strengths in economics? What do you feel are your weakness in economics?

Strengths would be preparing activities. Even waktu di berakas, durang minta my ideas. For example, bingo thing..and then I alter. Preparing for activities, I like lah. coz I saw my students enjoyed, so worthed lah. I like lagi colorful² and therefore attracting students attention.

I'm good in labour economics. I enjoyed doing that labour economics. U're dealing human resources. We learn a lot and then the lecturer relate to real situation. Such as muara factory. Like the employer only employed 300 workers sedangkan factory besar...because of certain factors.

47. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?

If someone is an expert in economics, I expect them to know Malaysian currency camana² cani, like kenapa fixed, kenapa nda floating, and they can explain. They can explain any situation lah of the world economy.

48. Who was your best and worst economics teacher you ever had? Tell me about them. [probe for their way of teaching economics]

The best economic teacher was cigu saleha, form 4 and form 5 teacher. Because of her, she motivated me to take economics a level. Because she usually had an informal lesson. She would make stories when she entered the class, and get our attention. She used stories and relate them to economics, iatah syiok kan. Usually real stories lah. kalau ia nada real stories, she would just make up imaginable stories so that the topic would be interesting. She really relate to daily lives. She grab our attention.

My worst economics teacher, economics a level teacher. That's why I failed economics. I expected a level economics payah, so I expect the teacher to be good. But what he did was chalk and talk. He just said, turn to page ...56. and then explain. And then he asked us to explain but we don't even understand the concept. All of us agreed kerja 2 weeks but he can explain in just one hour. The topic was too wide, but he just explain on the board, and he tells us to the exercise. It was really difficult. When we asked him, he would just say relate it urself, but how can we relate? When we didn't understand the concept. Out of 18 econs students, only 2 got through. Many of us demotivated and just change the subject.

1.2 View of economics teacher

Now I like to talk to you as an economics teacher

49. What made you decide to become an economics teacher? [probe for both reasons for teaching and reasons for teaching economics]

I didn't apply a teacher. But when I went for interviewed, I didn't have a choice. But I was persuaded to go to shbie because of the future, the job is there. So I had to take economics because of my background.

50. Now, that you are an economics teacher or commerce teacher, what are your goals for your students?

My goals are for my students to achieve good grades. But for me, is their understanding. They can get 100percent, but not sure whether they understand or not. so my supervisor was saying which one do u want, ur students get low marks but understand what u are teaching or students with high marks but memorising. So banar jua kan. If u understand, like now, I can still remember what being taught in form 1. so baiktah understanding than memorising. So maybe, with understanding and more revision, they can achieve good grades.

51. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students?

[probe for economics knowledge and the way of teaching]

The terms. Remembering the terms. They can remember, they can understand that to set up a business, u need money. But they don't know the terms. So what I did, I asked them to write down the equivalent simple word with the terms, macam shop=location, money=capital. And then tell them to highlight location and capital. And stress

out to them, supaya ingat terms itu. Pasa, if they use the simple terms, they wouldn't get any marks in the exam. So I did activities lah to recall the terms with the students. Language is also a problem. Because in primary schools, they are used bilingual. So in form one, I have to simplify the English, instead of giving them direct translation of the word macam debt is hutang...no..no..i have to explain when u borrow money from ur fren, so u owe money lah from ur fren. So my ct, asked me to explain like that.

52. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you used? Are you familiar with the topics and books? Have you read them before? How are the students in your classes?

Commerce 2 classes. 21 students and 24 students. Kira high achiever lah. kira commerce compulsory for the two classes. The classes are mix, co-ed. The topics, money, retail trade, how to set up a business... I think if I'm not mistaken, I have 11 topics, advertising.

The book that I used only the brown book and my sister's notes. I was familiar with the topics but I need to read back again lah.

Since they are high achievers, those who got 3 As, except that 1c more serious and passive and 1E, the other class more playful. 1E playful but easy to conduct activities.

Now I like to talk to you as a pre-service teacher of economics/ commerce

1.3 View as a pre-service teacher

53. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

Mot was good in giving simulated teaching. sometimes, we did economics topic and it was a perfect lesson but when we did in real lesson, everything changes. Everything didn't go well. Maybe, we didn't consider the factors of students. Rupanya students kebelakang sikit kan. We have to down to students level lah. It is helpful, but bear in mind that there will be changes lah. and sometimes 100 percent changes lah.

STAGE TWO

Interview 2: Teaching a Unit

Stage 2

2.1 View of economics

2.2 View of topic taught

What do you think is the problem in teaching commerce?

From what I realize, the students have difficulty with the terms even me as a teacher. For example, the term a measure of value. They ask me what value is. Because my cooperating teacher told me once that you cannot just simply give in the Malay words for it. So you have to explain it. So explaining value is kind of difficult. So the terms, language and materials are problems. The lack of resources that we have by just relying on the brown textbook. We need to have other sources as well. Luckily for me, I have sources like my sister's notebook. For other teachers, it is hard for them to have complete set of notes. We must have other alternative other than the brown textbook.

2.3 View of how they want to teach

2.1 Now, I like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

1) How do you prepare your lesson?

I see the scheme of work and see the level of students. Because I need to see whether they really understand their previous topic before I move on to a new one. I also asked some of my friends and one of the teachers here. Not my cooperating teacher because it is hard to meet her since she is teaching in the morning and I am teaching in the afternoon. So most of the ideas are mine

2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

Yeah I do for some of the words from the text.

3) How do you structure your lesson?

[Probe for the methods/techniques used to make the lesson more explicit to their students]

I follow the same lesson plan given by one of my lecturers. Because I asked few of my lecturers and they said it is really good to follow the structure. So I follow. I'm doing objectives in step by step. For example, I have to think first about introduction before I move on with the lesson development.

I have to make it understandable for the students for example money especially. The characteristics and functions of money. They got confuse what is the characteristic and what is the functions. So I had to explain to them that function is the use. Characteristic is what does it p to. And the term like measure or value of money which is the characteristic of money, they were really confuse about it. And I have to recap over and over again. I have to explain over and over again. I usually go with the flow. I got 2 classes, 1C and 1E. For 1E, the students are really active, so I usually question them, do activities and they like to get involve. But for 1C, the class is a bit passive and it takes time for them to get involve in any activities. So what I do, I usually just ask questions.

4) Where did you get your resources for the topic?

[Probe for other resources other than textbooks]

I used the brown textbook and the notes from my sister. She took commerce last year. I didn't get any from the internet. For pictures, its from my own idea. I just took them from the computer using the print artist for the types of occupation and print them out. So I am collecting teaching materials such as the notes. My folder contains things that I might need in the future like teaching aids, manila cards. My teaching kid. I put all the material in one place so it's easy for me to use it in the future. The handouts, I referred to the brown textbook and my sister's notes. Because if I just rely on the brown textbook, some of the terms are really hard for the students to understand. For example, I use another word for raw material which is natural resources.

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

My aim for the lesson is for the students to understand and remember the type of occupation. They have to know how to identify which type of occupation it belongs and give example.

2.4 The way they teach in class

Mass Eirnna, berakas, 21/2/05

111 tch: recaps last lesson by using questionings
 all students answer (read the notes)
 tch: what is production?
 Stds: read answer
 Tch: it is a process ...
 Tch: how many stages?
 Stds: 3
 Tch: first one

112 tch: now we move on to types of occupation (write down on the board)
 tch explains types of occupation
 tch: before I explain, let me define what occupation is (read the notes)
 stds: look at their handouts
 tch: how many types of occupation are they?
 Stds: five
 Tch: first?
 Direct services,
 Machinery
 Extractive
 Commercial
 Constructive

115 what does extractive means?
 It means taking out

Tch: continues reading the notes
 116 tch: first extractive. what is agriculture
 tch: it is fishing and farming
 tch: second type of extractive is manufactured
 tch: manufactured is also called exhaustive. It cannot be produced again
 tch: do u understand?
 Stds: silence
 Tch: for example, oil. After awhile, the oil is used up. So that's what we mean by exhaustive

Tch: the third type is non-exhaustive for example forestry. U cut out the trees right? How do you reproduce the trees? You do replanting.

Tch: so remember exhaustive is raw materials u cannot reproduce but non-exhaustive u can reproduce.

126 tch: finish goods or semi-finish goods

tch: finish goods are final goods..semi finish goods are half-way finish for example.. tyre can be considered as semi-finish good. Tyres u can assemble with cars and cars are the final products. Ok?

For example, chocolates are finish goods, final products. So example manufacturing occupations is potteries.

127 Tch: read the handouts about the different types of occupation. (explaining in the front)

130 tch still explain the handout. Types of occupation. Teacher gives examples

134 teacher let the students know that the final page is the summary of types of occupation

135 so what is

Stds: mumbled reading the definition

136 tch explains again to the students th

137 tch tells the students that they are going an activity. 'I want u to identify under what type of occupation it belongs to' . easy right?

138 stds: yes

138 tch gives instructions and divide students into groups

140 stds understood instruction and group themselves into 4 groups

tch: I want to check ur understanding so put away ur notes

tch: u can ask ur other members for answers but not from other group, if you do that, I will deduct one mark

141 tch draw 4 lines on the board to show group 1,2,3,4

142 tch one member from each group will say the answer

tch: paste a picture on the board (a doctor)

tch: write the answer on the paper and discuss which type of occupation it belongs to

stds: discuss answers

143 tch: ready? One from each group write answers in the front

144 all students write answers simultaneously

145 the answer is direct services

146 tch: wrote the marks for each group. One group got it wrong

tch put up another picture of a miner

147 stds have one minute to discuss the answer

each std from different groups wrote the answers simultaneously

148 tch: miner comes under extractive occupation

stds clap their hands for getting the right answer

tch put up a picture of a soldier

149 stds discuss the answer

150 stds write answer

tch says that soldier comes under direct services

151 tch put up a picture of a teacher

tch: what does a teacher belongs to?

152 stds discuss the answer

153 stds write answer

tch: ok direct services

154 tch put up a picture of a banker

stds discuss the answer

155 stds wrote the answers

156 tch: ok, 2 groups say it comes under constructive and 2 groups say it comes under commercial

tch: constructive is for building things, commercial is when u work in a building and do trading

tch: so banker is commercial not constructive

157 tch put up last picture a farmer

158 stds discuss the answers

159 stds wrote down the answer

200 tch: farmer is actually extractive

tch adds up the marks and announce the winner

lesson ends.

2.5 Their reflection of teaching

2.2 Now, I want to talk to you about how you taught just now (after lesson observation)

6) How do you feel about the lesson?

Compared to my previous lesson, I find that this is a good lesson. Because it is according to plan. And the students, they got involved in the activity. Good. Very good response. Before this, I really need to settle them down. It takes 5-7 minutes to get them settle because they got affected with the national day practice. So they're exhausted. So I give them time to settle down first.

The first activity that I did with them, I really had to explain over and over again and push them to get involve in the activity but this is the 3rd time I did an activity with them. Luckily, ok they got the idea of group work and I tell them to put themselves in group. Suddenly they just put themselves in a group.

7) Were you pleased with the way the lesson went? Did it work out the way you had expected?

Yeah, I am quite pleased with the lesson. It worked out the way I had expected. Especially the activity, but during the explanation, I expect them to ask questions. Compared with the other class, the other class will ask me, what is destructive, constructive, how come they are different. But this class they just take in everything I tell them without questioning.

So that's why when I plan a lesson, I have to think about the level of the students. Their motivation and one important aspect is whether they are active or passive. If they are active, I will try to involve them with activity or games. So they could do something here and there. It helps them to remember faster because by involving students, increases the chances that they will remember by 75%..

8) If you are doing the lesson again, is there anything you would like to change?

I was quite pleased with the lesson but there are changes that I want to do. Ok, firstly the picture I will try to put it in front and give the student, each group the pictures so that they can see better. Well, the group thing, actually my plan is to put boys and girl into one group so they mingle together. I tried to do it the first time but they don't want to mix, the boys and girls. It is difficult to follow what they want.

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

Now that I am doing my teaching practice, it will be helpful if I can hear the feedback from my cooperating teacher. But the problem is it is hard for me to see her. She observed me once a week but she didn't give me the feedback. So that's the problem because I need to hear in which way I can improve, the creativity, the explanation part. I tried to see the last time but she got some task to do. I tried to meet her the next day but the class got affected due to the practice and assembly. So the feedback, I still haven't heard until now.

10) Do you think you have learned anything new about teaching from the lesson?

I have to interact with the students. Interaction is really important because some teachers that I encountered and observed, they just do chalk and talk. They like the students to be passive. My experience during my school year, some of the teachers, they just give you everything the information and you are not allowed to ask questions. Because you are considered as a distraction to the class but now I see majority of the teachers, they like their students to involve in interaction because they know which part the student does not understand and which part they have problem. So they can focus more especially during the revision and preparation for the exams.

In today's lesson, I realized that especially the boys, those two sitting near the window, they can be easily distracted, especially the explanation part so that's why I have to ask them questions. I have make them aware that I am explaining and it is important for them to learn that.

11) Do you think your students have understood what you have taught just now?

Ok in the activity, I can see that girls understand more than the boys. Because the boys tend to get confuse. But for girls, from what I can see from the activity. especially the first group, they got all answers correct. The 2nd group is only got 1 wrong. But the last, the 3rd group where the group of students of the boys who were easily distracted, their marks are lower compared to the others. So that's how I judge and how I know whether they really understand my explanation.

So what I am trying to do for the next lesson is that I am going to do follow-up. I am going to give them exercises like I usually give them when I only have a single period and then I will first ask them to work individually and the I mark their work. And in the next lesson, we will discuss the questions together. I will concentrate more with the students who are a bit slow in understanding information.

12) Have the students enjoyed learning the topics?

Personally maybe not 100% but maybe 60-75%, yeah I think especially the activity. That is why when I came into the class, they said teacher, lets do activity. They enjoy the involvement with their friends rather than sit and listen and taking all the information.

Your reflection on teaching

When teaching, I usually try to link a new topic with the previous topic. For example money and barter trade. I ask them questions, lets say in barter trade, now we are no longer changing goods we have money, so this week we are gonna learn about money and then, focus the sub-topic of money. I have to ask them question first and if they answer correctly, I will elaborate it. But if they don't then I will give out the answers and explain.

In all your lessons, do you ask your student to give their own examples and explanation?

Yeah, most of the times, I will ask them to give their own examples and their own understanding. For example, barter trade, there are four problems. Before I give the disadvantages, the correct terms that they use in the textbook, I ask the students, ok in your opinion what are the problems in barter trade? Then they are going to say, it is hard to find someone who is willing to.... So they will be using their own word and ideas and after that, then I will give out the correct term to use for the explanation. So for barter trade, first they will need to know what does barter trade mean. After that, they need to know about the disadvantages. But before I give all the information, I ask them first.

Where do u get ur teaching materials from? Or sources do u use the internet?

I try to look up but unfortunately I haven't found a site which is really good as reference. I don't know, even the teacher themselves, they said ok you just have to rely on the brown textbook and find from other sources from other teachers. But in the internet, it is not really helpful, unlike economics, you have lots and lots of choices.

So how useful is the knowledge that you have learned from the university?

Very useful, especially for the methods of teaching that I learnt in 2 semesters. The methods of teaching taught me how to be involved with the students, how to set up an activity which really works for the students. Psychology for teaching and learning, is really good because it helps us to understand the students better. We need to understand why the students are not interested in learning, we try to use psychology and make them interested in learning and motivate them.

In MOT1, the lecturer concentrates more on how to carry out the activity and how to introduce and carry out the lesson. For MOT2, the lecturer gave few groups the same topic to present and see the variation in teaching. The different ways of teaching.

In commerce, I am teaching two classes, for example, the first class, since they are passive, they listen to the theories a bit but in another class, I will make slight changes for the students. That way I keep the variation between the two classes.

What do you think is the problem in teaching commerce?

From what I realize, the students have difficulty with the terms even me as a teacher. For example, the term a measure of value. They ask me what value is. Because my cooperating teacher told me once that you cannot just simply give in the Malay words for it. So you have to explain it. So explaining value is kind of difficult. So the terms, language and materials are problems. The lack of resources that we have by just relying on the brown textbook. We need to have other sources as well. Luckily for me, I have sources like my sister's notebook. For other teachers, it is hard for them to have complete set of notes. We must have other alternative other than the brown textbook.

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

Stage 3

3.1 View of economics

53) Finally, from your point of view, tell me what does it mean to learn economics?

Economics. I think to learn economics is to learn the real world. U cannot learn economics by reading textbooks. But u need to update by reading papers, we have to know other countries situation. For eg, if we want to know exchange rate, we need to know the situation, we have to know the country policy, iatah we have to know the real world lah.

Learning economics teach u to be alert lah. Everything is not fixed. No right or wrong. So many arguments, so subjective. As long as u know the theories...

3.2 View of topics taught

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

I remember my favourite topic was barter trade because I remember I asked the students to do role play. And they like it so much and they grab the ideas so fast. I give them group activity. I separate them into six group, so one group about 4 students. And one group I give like about 3 goods to exchange. Usually things that are interesting to them, like comics, pepsi, anything lah. And then I say lets do exchange, who wants comic? And the guys, would say, I want them. and I ask them, what goods do have. And they reply pepsi, do u agree? And the other party agree. And then, I asked them to explain what happen. And they say...tukar barang. I asked them, apa important. And they say, the other party agree. And then after that, I explain the term barter trade. And they say, easy to remember. I did in one lesson because it was a double period. The activity in half hour and the explanation in half hour. But I didn't explain the advantages and disadvantages pasal terlampau banyak information. The next lesson baru aku explain.

The least favourite topic will be money lah. Because money especially part function of money, kalau the characteristic itu ok, because they can just simply look at the money, and they say..ah..ok. but with function, they struggle a bit. Especially, remembering the exact word. They remember the function, untuk bayar hutang, untuk beli the goods. But to remember the words itself payahlah, I don't know how to... simplify in malay, ok lah. They can explain. But they find it difficult to explain using the terms.

Also terms of trade pun payah bagi during jua. They find it difficult to use the terms. Macam capital, they put money. They are form one. They would say like capital city is.... Commerce banyak termsnya. Commerce is a new thing. I ask them, they would say, commerce is the hardest thing. Even my cousins in maktab sains, pun kata, commerce payah sekali. Because banyak kan diingati. The terms just difficult for them. They are still kids.

3.4 View of relating economics knowledge to teaching

54) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Actually, the economics that I learned at ubd is far more advanced. But methods for teaching is very much useful. It teaches u how to teach. But economics I learned at fbeps too advanced for form 1 students. Lucky for form 4 and 5 and advanced level. So walaupun I learned mot economics, I just apply the knowledge to teach commerce. But payahlah, apply mot economics itu to commerce. Because commerce is simplified. Commerce is more into activities because of the level of students, whereas economics, they are form 4 and 5, more explanations.

From fbeps, yang useful, economy of Brunei, micro and macro. But I don't like statistics of economics. The lecturer did not know how to explain, iatah payah kan.

3.5 View of school economics or commerce

Because commerce is simplified. Commerce is more into activities because of the level of students, whereas economics, they are form 4 and 5, more explanations.

3.3 View of learning to teach economics/commerce

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

I remember my favourite topic was barter trade because I remember I asked the students to do role play. And they like it so much and they grab the ideas so fast. I give them group activity. I separate them into six group, so one group about 4 students. And one group I give like about 3 goods to exchange. Usually things that are interesting to them, like comics, pepsi, anything lah. And then I say lets do exchange, who wants comic? And the guys, would say, I want them. and I ask them, what goods do have. And they reply pepsi, do u agree? And the other party agree. And then, I asked them to explain what happen. And they say...tukar barang. I asked them, apa important. And they say, the other party agree. And then after that, I explain the term barter trade. And they say, easy to remember. I did in one lesson because it was a double period. The activity in half hour and the explanation in half hour. But I didn't explain the advantages and disadvantages pasal terlampau banyak information. The next lesson baru aku explain.

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2) What was your favourite resource?

Textbook. I just use the brown one. Nada lagi ada lain. But it was such an old book. So lots of terms not lagi valid lah. So my ct lah yang tolong lah. So I have to ask around because I remember that there were 4 points and then inside the text there were only 3 points, so I have to ask around lah, look here, look there. I try to look at the internet, tapi commerce nda banyak lah. Its not that famous subject. Basically, money, barter trade, but ada topics like retail trade, payah lah kan relate, and too advance to explain to form one students. I just use googles, so I just type the advantages of money...so keluarlah. I just choose.

3) What was the best lesson that you had taught? Why?

Barter trade lah. That was the best lesson lah. Students were having fun. So that was important. They enjoyed, and they involved in the lesson. Walaupun during cakap borong, they exchange. And to make their frens to exchange with them, they try to persuade. And they understand the concept. And I manage to target the objective to teach.

4) How did you prepare to teach topics that you haven't studied?

Alhamdulillah, all the topics I taught I learned already form I-form 3. ganya lupa tu adalah. So difficult to explain to them. So what I did, a week before the lesson..so two weeks in advance, read the textbook. And lucky, my sister did commerce, so I asked my sister, what her teacher did, so I got the idea lah. And I asked my old teacher at the school, he was good lah. So I got the ideas from him lah.

5) Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

Usually, I ask them dululah. For example, functions of money. So I ask them, what did u do yesterday? Did u go shopping? So i ask them lah, why money so important? Why can't u buy the shoes? Sudah during relate to their experience, they understand. I notice kalau aku explain, payah during kan merati. So I rather like asking them first lah. So that they can relate.

Local examples, like retail shop, like sole traders, so I give local examples. Such as department store, I asked them, so they say, hua ho department store, so they say, another one kadai kaling..so I have to explain them why it is not department store. Because I remember in the textbook, nada example, so when they give all these examples, they can remember what is a department store. So its better to give local examples.

Banks pun bagus. What is Islamic bank? During pun tau. Like textbook, its Malaysia, like Malayan bank, so students pun nda tau. So waktu during jawab questions pun, during ingat, pasal hua ho, so senang lah kalau pakai local examples.

6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand?

Kalau assessment, typical lah. First and second lesson, I give questions as classwork.. And the supervisor came, and then he observed my lesson. So I said, I followed all the teachers. They simply just remember, and they don't understand. What they write not necessarily what they understand, maybe just from the textbook. So he said y not do activity. So I did that, give activity. To motivate them, I give something in return, and I tell it awal. Only after doing the activity, I ask them to do again. Commerce is only 3 periods a week. So I had to do them in groups. So when I give group work, those who understand can explain to those who don't understand. And so not typical assessment. But for formal assessment, after activity, I give them paper questions and answers lah. I like them to explain.

I manage to give them extra classes. But I only did once saja kali. Like Sunday. As long as they understand.

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

55) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

Actually, the economics that I learned at ubd is far more advanced. But methods for teaching is very much useful. It teaches u how to teach. But economics I learned at fbeps too advanced for form I students. Lucky for form 4 and 5 and advanced level. So walaupun I learned mot economics, I just apply the knowledge to teach commerce. But payahlah, apply mot economics atu to commerce. Because commerce is simplified. Commerce is more into activities because of the level of students, whereas economics, they are form 4 and 5, more explanations.

56) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

My view of learning to be a teacher, at first reluctant, but now, I have to accept, that I am a teacher. So I have to recall back my experience as a student ada cigu baik, then ada dulu tani wish ada cigu baik. So now, I am thankful that I can help students yang really mau belajar.

My supervisor is really very good. Dulu, faham nda faham, as long as u do ur part, its enough. But with my supervisor, use psychology. He encourages me to do activities in classes. He gives me advices on how to manage the students, like those that I cannot control. So he advices me to ask more yang duduk dibelakanglah.

With my peers during tp, their activities such as bingo, I can use their ideas in commerce. Like bingo, ask them to pick a number, u have a question and they answer. Usually I will do that after a topic. So among peers, we discuss about the activities, and we offer to others who want them. But I asked also frens outside schools who taught commerce, about activities.

I asked dr keith, but with commerce, its difficult lah, because its economics, so he helped me out like give ideas but up to me, to implement them.

With ct, ok jua lah, they give ideas lah. So everyone, is helpful.

And not forgetting my sister, sometimes, I did pre-lesson with her. She gives me ideas to carry out my lessons.

57) What else did you learn from your teaching practice? [probe for the role of schools and community]

The schools helpful in resources. Teaching aids, manila cards and photocopy. We can just ask for manila cards and schools provide. And if we want to photocopy, they are helpful.

Cigu lain, bagi tips and advices jua lah...like how to treat students, like I'm the teacher, and ur the student. Like elakkan favouritism. I try to treat them as equal. I have to remember my role as a teacher to teach them. I think they are now exposed to the new way of teaching. Students accept the creative way of teaching lah. And now, it is helpful when supervisors explain to the school that they want the future teachers not only to teach chalk and talk.

58) Tell me how your courses at the university have affected how you think about teaching

economics/commerce? To help you out, here are the titles of the courses. [Probe for the course of method for teaching economics/commerce]

Really useful is introduction to teaching. And then I remember, not to think that all people think the same. With ict, only if schools have the resources. At my school, no ohps, so I have to use manila cards lah. But I learned that power point, we can insert movies, sounds, etc. with mot, its helpful. Because of effective way of teaching, all the important points that relate to teaching and assessment.

From fbeps, yang useful, economy of Brunei, micro and macro. But I don't like statistics of economics. The lecturer did not know how to explain, iatah payah kan.

arah shbie, I learn all the important points to be a teacher. Kira being a teacher is not easy after all. We did simulated teaching, etc.

in Shbie, they transform u from a student to a teacher. That one in the half year, prepare us to be a teacher.

At shbie, challenge everything lah, kira creativity, we have to assess their level of understanding. That's the most important thing. But I know the end of year, it's the achievement, but at the end of year, it's the understanding. So shbie was helpful in being an eye opener on teaching.

59) What other experiences that you have had that have affected how you think about teaching economics/commerce?

My own experiences, coz I have cousins, and I get the ideas whether during faham atau nda. So from there, I can make changes lah. I teach tuition jua lah waktu ubd, like it help me to make me understand whether students understand or not. So I usually prepare two weeks before the lesson.

My dad, pencen sudahlah, I asked my dad lah. How to attract students attention. So he said that the crucial moment, is when u enter the room. U attract the students attention then only u can deliver the lesson.

60) Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?

I think, kalau mot, I think they should consider psychology in it. Walaupun psychology sudah ada arah courses lain. Tapi psychology helps when we carry the lesson. Kira patutnya consider a real lesson where the students are behaving like students. It ll make the lesson more interesting. Coz simulated teaching, semua baik2 pasal semua kawan2. coz I remember my fren, ia terkajut, single sex students, its much worse in real situation. I think the problem with mot, we not really prepared with the real situation. Nada kena consider other factors with students. I think, if we include that one, at least, they are more prepared.

61) Finally, from your point of view, tell me what does it mean to learn economics?

Economics. I think to learn economics is to learn the real world. U cannot learn economoics by reading textbooks. But u need to update by reading papers, we have to know other countries situation. For eg, if we want to know exchange rate, we need to know the situation, we have to know the country policy, iatah we have to know the real world lah.

Learning economics teach u to be alert lah. Everything is not fixed. No right or wrong. So many arguments, so subjective. As long as u know the theories...

Lesson Plan: Munira

Name of pre-service teacher: Munira

Class: Form 1

Date: Monday, 21st February 2005

Time: 12.50pm-2.00pm (70 minutes)

Number of students: 21

Topic: Occupation

Sub-topic: Types of occupation + picture clippings activity

Aims:

- To inform the students the different types of occupation
- Explain each type of occupation
- Recognize different types of occupation

Materials

- whiteboard
- Handouts
- Picture clippings (for the activity)

Procedure**Introduction:**

- Teacher recaps previous lesson on the types of production.
- Teacher informs the class what are they going to learn in today's lesson.
- Teacher writes the topic on the whiteboard.

Development:

- Students are asked to take out their handouts on the types of occupation.
- Teacher explains the types of occupation and students refer to their handouts.
- Teacher gives examples on each type of occupations.
- Teacher asks the class if they have any questions regarding today's lesson
- Teacher gives out activity as to check students' understanding
- Teacher divides the class into four groups: two groups for boys and two for girls.
- Teacher posts up pictures on the whiteboard and students are asked to identify what type of occupation it fits into.
- Discussion is allowed between group members.
- Each representative from every group will write their answer on a piece of paper.
- Teacher calls up the representative to the front and together they will write their answer at the same time (This is to avoid cheating)
- Each correct answer will be given one mark.
- The group which has the highest mark will be announced as winner

Closing:

- Teacher asks the class if they have any questions or issues regarding today's topic.
- Teacher recaps today's lesson.

Appendix 12 (A12): Transcripts of Mona

Mona

Economics

15th February

INTERVIEW QUESTIONS FOR PRE-SERVICE TEACHERS**STAGE ONE****Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce****1.1 View of economics/commerce**

First I want to talk about the study of Economics as a discipline.

7. Can you tell me about your background in economics?

I didn't take commerce form 1-form 3. I took economics form 4 and form 5. a level, I took accounting and mob. Ubd, major economics and minor, maths.

Tell me also about your undergraduate courses: Favourite and least favourite.

Favourite would be monetary economics and statistic economics. I like monetary because I understand and it deals with calculations and I sort of like that topic.

I don't have any least favourite. All are ok.

2. What do you feel are your strengths in economics? What do you feel are your weakness in economics?
I got more weaknesses than strengths in economics. I don't really update my knowledge, so I sort of lack behind and I need to update so that I can teach better.
3. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?
Someone expert in economics, I expect them to know everything, they are aware of current situation. Their basic knowledge won't fade like mine. I need to refer again to remember the facts.
4. Who was your best and worst economics teacher you ever had? Tell me about them. [probe for their way of teaching economics]

In form 4 and form 5, our teacher use spoon feeding. But when I went to ubd, most of the lecturers want us to think first before he explains. Sometimes these changes make us hard to...intiailly we don't know in the first place, we are blurred in the first place and he ask us questions so its very difficult to adjust. So far I don't have best and worst teachers. They have tried their best.

1.2 View of economics teacher

Now I like to talk to you as an economics teacher

5. What made you decide to become an economics teacher? [probe for both reasons for teaching and reasons for teaching economics]

I join teaching because lots of people encourage me like my family, friends and relatives. Teachers are good, all benefits I can enjoy. And my friends join in. I choose economics because this is what ubd had offered and I think I can teach economics than other.

6. Now, that you are an economics teacher or commerce teacher, what are your goals for your students?
Apart from understanding, I expect them to get good results and to understand better.
7. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students?
[probe for economics knowledge and the way of teaching]

If they didn't take commerce in form 1, 2, 3, so they don't have any background on economics and initially, they find it hard to understand. And this makes teaching economics more difficult. So if this is the case, I will try to relate more to their daily lives like scarcity and relate more to their personal experience and relate back to economics.

Language is also a problem because sometimes students understand but they would simplify everything that they want to explain. But then again, in economics, they need to elaborate more, so this is difficult for them. Most of the key terms, I would highlight and so I would explain. And they would put it in their own words and we would check again what they wrote. I just gave them case studies but not essays. Initially, they give short sentences, but I encouraged them to elaborate more and they grab the ideas that when they answer case studies not short answers and they need to elaborate more.

8. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you used? Are you familiar with the topics and books? Have you read them before?
How are the students in your classes?

2 classes. 6 students in one class (optional economics). All boys. 2 students (compulsory) in the other class, one boy and one girl. I taught scarcity, market systems, diversification, integration, division of labour. I use the green text book (anderton). In class, I don't usually refer textbook, I provide handouts. I am familiar with all the topics. My students are very cooperative, they are willing to try and willing to do. They don't like homework and classwork because they find that writing is troublesome. They rather spent their time in the class writing. I will try to make them write more.

1.3 View of pre-service teacher

Now I like to talk to you as a pre-service teacher of economics/ commerce

9. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]
I tried to apply but I don't really like what the things that the lecturer taught us. I just refer to other choices provided by the internet and other textbooks. I just choose the best of all and I teach them.

STAGE TWO

Interview 2: Teaching a Unit

Stage 2

2.1 View of economics

2.2 View of topic taught

- 1) How do you prepare your lesson?

Later I am going to teach them economic diversification. Actually, I want to find an activity for the students. But I can't get it so I will just have to use my notes from the university because in UBD we did learn economic in Brunei. So I just got material from our research previously on sustainable development of Brunei. So later I will teach, let the students to read all those. I have highlighted or underline some important keywords. I would let them analyze the economy of Brunei situation. And also from the article, I want them to have their own view how to cope with the situation of Brunei. Then, it is also to introduce the economy diversification.

2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

This economic diversification is a new topic and I can't find it anywhere else in the textbooks here and in the bookshop. So I had to use my notes from ubd. I think the notes are already simplified.

2.3 View of how they want to teach

Now, I like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

1) How do you prepare your lesson?

Later I am going to teach them economic diversification. Actually, I want to find an activity for the students. But I can't get it so I will just have to use my notes from the university because in UBD we did learn economic in Brunei. So I just got material from our research previously on sustainable development of Brunei. So later I will teach, let the students to read all those. I have highlighted or underline some important keywords. I would let them analyze the economy of Brunei situation. And also from the article, I want them to have their own view how to cope with the situation of Brunei. Then, it is also to introduce the economy diversification.

2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

This economic diversification is a new topic and I can't find it anywhere else in the textbooks here and in the bookshop. So I had to use my notes from ubd. I think the notes are already simplified.

3) How do you structure your lesson?

[Probe for the methods/techniques used to make the lesson more explicit to their students]

Firstly, I will give them to read the article. That is one of my activities. Then from there, I want to see the student views on ways on how to cope with the situation. And then, I will start introducing diversification and after that I will distribute the notes and then I will give them exercises.

4) Where did you get your resources for the topic?

[Probe for other resources other than textbooks]

I don't get any notes from my cooperating teachers. The notes, I get from various sources and I simplified to a better one. I also get some notes from the internet.

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

My aim is for the students to understand and be aware of the situation in Brunei. I want their understanding of diversification.

2.4 The way they teach in class

Mona, salambigar, 15/2/05

3students, all boys, gurkhas

1125 Tch: Imagine an economist from economic department of Brunei. I give you data from Brunei and after you read it, I want you to tell me what are the problems that Brunei face, what Brunei exports, what Brunei imports and I will ask you to write the answers on the board (teacher give instructions in front of the class)

1126 Tch: showed stds the pages

Tch: 'scan what are the problems Brunei face'

1127 tch: draw on board

Economy of Brunei
export Import
What are the problems of Brunei economy?
Prospects for sustainable development

1130 tch: choose one std and ask him to write answers for export and import
std wrote :

export import
oil rubber

1134 tch: ask another std to write export and import
stds still reading the handouts (no answers from stds)

1137 tch tell std to write the problems in own words
std wrote: the market price of the oil is unstable in early 2001
another std wrote: import
food

1140 tch: 'how to maintain standard of living?'
stds: silence

1142 one std wrote 'by producing more oil' 'finding more resources'
tch: besides oil, what do Brunei have?

1144 Tch recap answers. Wrote 'garment' (export).
Ask students 'what is garment?'
Std: no answers
Tch: 'garment are like clothes'

1146 tch: export import
oil and gas

can anyone write down is oil renewable or non-renewable resources?

1148 tch explain oil is non-renewable so cannot be produced more oil

1150 tch: finding more resources
tch: show stds the page for Brunei development

tch: so what do Brunei government want to do?
Std: silence

Tch: point to the sentence in the handout 'read this'

Tch: so what do Brunei government do?
Std: don't know

Tch: 'ok in that paragraph, Brunei doesn't want to rely on oil and gas, they want to rely on other non-oil sectors'

Tch: can you give me an example of non-oil sector
Std: forest
Tch: wrote 'forestry' for sustainable development
Tch: 'is there any more?'

Tch: wrote 'renewable resources' for sustainable development
Tch: besides agriculture?
Std: fishing
Tch: good. Other than that?
Std: silence

Tch: u know what is development plan?
Tch wrote Development plan (on board)
 1) Diversify its economy

Tch: diversify means they don't want to rely too much on oil and gas

1156 so now todays topic touch on diversification
 tch gave handout, choose one std and told him to read
 std: read paragraph
 tch: besides oil and gas, Brunei wants to increase other non-oil resources, so write down examples in Brunei
situation
 stds take turns one by one reading article aloud
12.10 tch: recap the lesson: what is diversification? Advantages and disadvantages
 stds: answer one by one
12.30 class ended

Comments:

- Teacher explained and questioned stds
- Std's kept silent, mention they don't know or they ignore teachers questions
- Std's write answers on board without really reading the handout
- Tch gave 2-3 mins only to stds to read
- Handouts were from university lectures
- Teacher assume stds know export, import, and sustainable development of Brunei (students are not bruneians)
- Assumed they know what terms mean
- Students are evaluated by writing answers on board and sheets later on
- ½ hour lesson on import, xport, problems and prospects, other ½ hr on diversification of brunei

2.5 Their reflection of teaching

2.2 Now, I want to talk to you about how you taught just now (after lesson observation)

6) How do you feel about the lesson?

I feel it was alright because the students. The reason I like is the students' participation in the lesson. So I feel it was alright.

7) Were you pleased with the way the lesson went? Did it work out the way you had expected?

Yes I am pleased. It worked out that way. There is not much variation because there are only three students in my class. So there isn't any variation.

8) If you are doing the lesson again, is there anything you would like to change?

If there is more time, there is a possibility that I would bring them to ICT lab where they can find or search online. So by using the internet, I think that would be much better. I have brought them to ICT lab in my first lesson and I found that this class, they know how to use the internet. So they like to go to ICT lab.

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

My plan was I want the students to be aware of the situation themselves and think their own way to solve current issues. And then I will introduce the problem. So they can see the relevance towards what they are learning and towards the application of economy.

About the students, there is one student who came from Nepal without any economic background so I think he needs more guidance from the teacher.

10) Do you think you have learned anything new about teaching from the lesson?

I have learnt about the allocation of time. I have learned how to allocate let's say how many minutes for discussion, how many minutes for classwork because last time I didn't. I just put it overall how many minutes.

11) Do you think that your students have understood what you have taught just now? How do you know?

How do I know? From the classwork that they answered. I can see that they understand what I have taught. They can give me the advantages and disadvantages. And that is the aim of my lesson, for them to know the advantages and disadvantages.

12) Have the students enjoyed learning the topic? How do you know?

I am not really sure.

13) How do you usually introduce a new concept or a new topic?

Usually I would give them activities. Lets say division of labour, I can give them like let's say paperwork and all those things organize their work. But then it is just that, last time, there are only 2 students. So I can't really show them the division of labour hence I give them where there are leaflets and they write stories about it. So that was the activity. I would then introduce the topic. They have to relate what they did with the topic.

14) Do you usually ask your students to give their own example and explanation?

Yes I do. Lets say for market economies, I would ask them to give me examples because I given them characteristics. For example, I would ask them, is it good this way? Is it good that a country adopts market economy? And I ask them to reason out.

15) Where do you get your resources?

Yeah, I get them from the internet. I get them from books. I don't share with my friends.

16) How useful is the knowledge u have learn from the university in ur teaching?

Yeah. At FBEPS, we learnt economics and at SHBIE we learnt how to manage students' behaviour. MOT is about the method of teaching like the reasons why we often give activities for learning and we learn that children love activities. They were helpful. We can apply but it is just that if we were to use activities in the classroom, it is time consuming. What is more, we need more budget.

What do you think is your main problem in teaching this one economic? Do you usually use bilingual?

For this class, I don't use bilingual because they don't understand malay and they don't take malay. They are all gurkhas.

Are there any problems in teaching economics?

Not yet. I think not yet.

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

Stage 3

3.1 View of economics

62) Finally, from your point of view, tell me what does it mean to learn economics?

Learning economics is like I know what is happening in the world. Like when I read the newspapers, I sort of understand more deeper with economics.

3.2 View of topics taught

1) What was your favourite or least favourite topic to teach? Why?

My favourite topic was cost of production. Where the students have to use.. because I provide resources for example I give them activities to do. I brought many stationeries so I let them decide which stationary they want to order and sell it in their shop. So I divided them into groups and I like to teach this topic because students find it interesting and they understand what I teach.

So far, I didn't have any least favourite topic to teach. All were ok.

3) What was the best lesson that you had taught? Why?

The best lesson that I had taught when student raised more topics so that they can understand what they are learning. Types of market, they raise lots of questions, such as command economy, market economy, sometimes some questions, I don't really know how to answer. So I ask them to find resources and I also find resources and the next day, we discuss them.

3.4 View of relating economics knowledge to teaching

63) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

I think in ubd, we try to learn more detail so that we can teach more properly in class but there are some topic that are not covered and some are lets say asean economy, I don't see any asean economy in form 4 and form 5 in their text book, so we learn this for our personal knowledge, I don't think it applies to teaching in school. I think economics is also relevant so that we know what is going on.

3.5 View of school economics or commerce

3.3 View of learning to teach economics/commerce

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

My favourite topic was cost of production. Where the students have to use.. because I provide resources for example I give them activities to do. I brought many stationeries so I let them decide which stationary they want to order and sell it in their shop. So I divided them into groups and I like to teach this topic because students find it interesting and they understand what I teach.

So far, I didn't have any least favourite topic to teach. All were ok.

2) What was your favourite resource?

Textbook. Usually I go to ubd library and I find lots of economics books. I don't have any favors of textbooks because some are relevant and some are not. I use internet, I use yearbook and I use newspaper. I just type the specific words at the search engine. Such as diversification, so I show related news regarding diversification in Brunei then I ask few questions for them so that they can get it from newspapers. In this way, they can apply to the world.

3) What was the best lesson that you had taught? Why?

The best lesson that I had taught when student raised more topics so that they can understand what they are learning. Types of market, they raise lots of questions, such as command economy, market economy, sometimes some questions, I don't really know how to answer. So I ask them to find resources and I also find resources and the next day, we discuss them.

4) How did you prepare to teach topics that you haven't studied?

I never studied during form 5. so I just find resources from the textbook, the internet and anyway I can find resources and discuss with my friend on how to teach the topic. The topic was diversification.

5) Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

diversification, integration, firms here. I asked students examples, their point of view, and then onwards, I try to give my examples if necessary. Lets say division of labour, I did give activities where one group do it individually and another group do it in groups. And then I ask them their point of view, which one is better, which one is efficient and then from then onwards, from their activities, some will say individual better and group work better. I will just ask them what their opinions.

6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand? I will ask them, I select few people, what do they understand from the lesson, so they tell me, from my experience, they don't tell me the exact definition but they sort of know what they have learned. So I used questions orally. I do assess them using classwork and homework. Sometimes I give them homework, they can't finish it because they don't understand, so we will just go through in class because not all people don't understand. There are some people who understand, so students who understand, indirectly teach students who don't understand.

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

64) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

I think in ubd, we try to learn more detail so that we can teach more properly in class but there are some topic that are not covered and some are lets say asean economy, I don't see any asean economy in form 4 and form 5 in their text book, so we learn this for our personal knowledge, I don't think it applies to teaching in school. I think economics is also relevant so that we know what is going on.

65) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

Initially, before I went to shbie, I thought a teacher is just teaching a student, I studied at shbie, being a teacher, there are lots of duties, responsibilities, and things to do.

I think during teaching practice and cooperating teacher are very helpful. And we discuss beforehand how to teach these topics so that it would be much better. And that my supervisor is not an economics teacher, so she just help in classroom management. I didn't ask my lecturer since he taught us well on how to teach the topic.

66) What else did you learn from your teaching practice? [probe for the role of schools and community]

The school provides lots of manila cards for activities. But I don't think they do provide specifically for economics. In schools, I have to find classes, whereby teachers kept on finding specific classes, and there are fear and doubt of taking economics because of essay writing so less people took economics and they opt of other subjects like accounting.

67) Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

Method of teaching is useful for economics. Before that, I didn't realize students like activities. U can teach effectively with the help of activities and that students find it enjoyable.

68) What other experiences that you have had that have affected how you think about teaching economics/commerce?

No, I don't think so...

69) Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?

Lecturer tells us every single lesson in school sort of they tell us and give ideas how to teach this topic..and that topic. But then in the end, everyone will be the same and there will be no variation. But then, if they are able to provide this, we will be able to teach better.

70) Finally, from your point of view, tell me what does it mean to learn economics?

Learning economics is like I know what is happening in the world. Like when I read the newspapers, I sort of understand more deeper with economics.

Lesson Plan: Mona

Lesson Plan

Name of Pre-service teacher: Mona

Class	Form 4
No of students	3
Date	Tuesday, 15 th February 2005
Time	11.20-12.30
Topic	Production
Sub-topic	Economic Diversification
Objectives	At the end of the lesson, students should be able to: i. Define the meaning of economic diversification; ii. Explain the reason for economic diversification
Materials	- Data on the economic situation of Brunei - Board
References	- Haji Ismail Duraman, Tisdell, C. (1998). Achieving sustainable development in an oil dependent economy: The case of Brunei Darussalam. Asia-Pacific Development Journal. - (2001). EIU Country Profile. The Economist Intelligence Unit Limited. Retrieved from: http://www.eiu.com
Procedure	Introduction (5 minutes) 1. Teacher settles the class. 2. Students hand in their homework.
	Development (50 minutes) Activity 1: Group activity (25 minutes) 1. Students are given articles regarding the economic situation in Brunei Darussalam. 2. Students are to recognize Brunei's economic problems and deduce strategies to solve the economic problems. Lesson Development (25 minutes): 1. Teacher introduces the word Economic Diversification, 2. Notes are distributed. 3. One student read the text from the notes and the other students need to explain what he understands from the text. 4. Students are asked to explain why Brunei's government want to diversify its economy 5. Then student is to read from the notes on the reason for economic diversification.
	Closing (15 minutes) 1. Recap on the important key concepts such as diversification. 2. Recap on the reason for economic diversification. 3. Assignment of class work.
Assessment of students learning	- Questioning students orally during the discussion; - Feedback of students; - Monitoring all students informally when they are reading and answering the activity worksheet - Completion of activity exercise and classwork
Evaluation & remarks	-

Appendix 13 (A13): Transcripts of Sabrina

Sabrina
Commerce (Form 4)

Stage 1

INTERVIEW QUESTIONS FOR PRE-SERVICE TEACHERS

STAGE ONE

Interview 1: Knowledge/ Conceptions of Economics and Teaching Economics or Commerce

1.1 View of economics/commerce

First I want to talk about the study of Economics as a discipline.

8. Can you tell me about your background in economics?
Form 1-form 3, I learned commerce, form 4 and 5, I learned accounting, form 6, mob and accounting.
And at the university, economics my major and accounting my minor.
Tell me also about your undergraduate courses: Favourite and least favourite.
My favourite, the economy of Brunei. because it was interesting. The least one was Islamic economics.
Maybe I don't really understand. He introduced all these terms, and I don't understand.

10. What do you feel are your strengths in economics? What do you feel are your weakness in economics?

My weakness is the maths one. I don't have strength, I just like the basic one, like micro and macro.

11. What do you think it means for someone to know economics? If someone is an expert in economics, what do you expect them to know?

If someone knows economics, maybe worldwide things, like what happen the currency this time. So if someone is an expert, he will know about so many things and all the theories.

12. Who was your best and worst economics teacher you ever had? Tell me about them. [probe for their way of teaching economics]

The best one is Keith Wood. I don't have worst teachers. The best one is Keith. Because he really trained me to think a lot. Because during secondary school, we never dared to ask questions, but at the university, we tend to ask. So it's a good thing. He helps me a lot during teaching practice.

1.2 View of economics teacher

Now I like to talk to you as an economics teacher

13. What made you decide to become an economics teacher? [probe for both reasons for teaching and reasons for teaching economics]

Since young, what is ambition, I just wrote teacher. Really. But then I guess in Brunei, a teacher is the best occupation. Why economics teacher? Frankly, I prefer business subject, so I guess economics and accounting.

14. Now, that you are an economics teacher or commerce teacher, what are your goals for your students?

I just hope that they can understand my lesson. But I think in the future, I just hope they get good grades. Good grades and understanding does not link together, that's how I feel. I hope that they get good grades and understanding.

15. What do you think makes economics or commerce difficult for students? What areas do you think they might have problems with? What is easy for them? What could make the study of economics easier for students? [probe for economics knowledge and the way of teaching]

The theory part, like understanding the terms. And then their English, its difficult for them to understand. So that's why they memorise. Maybe for some, the calculation is easy but not all found it easy. If they can't understand, I used a bit Malay, but most of the time I used English. I used very simple English.

16. Tell me about the classes that you are teaching. How are the classes organized? What topic units are you teaching? What books do you use? Are you familiar with the topics and books? Have you read them before? How are the students in your classes?

I taught only 1 class commerce. There were 22 students. Mix boys and girls. I mostly used textbook, Betsy Li, the blue book. In the first place, I wasn't familiar, because I never study all these things. The students were ok, but I had to try to make the lesson interesting. One or 2 only asked questions so I always wonder whether they understand or not.

1.3 View of pre-service teacher

Now I like to talk to you as a pre-service teacher of economics/ commerce

17. Tell me how your courses at the university have affected how you think about teaching economics/commerce? [Probe for the course of method for teaching economics/commerce]

18. What other experiences that you have had that have affected how you think about teaching economics/commerce?

STAGE TWO

Interview 2: Teaching a Unit

Stage 2

2.1 View of economics

16) How useful is the knowledge that you have learned from the university in your teaching?

It is not very related. Whatever I learned at the university, it is too complicated. Here it is really the basic. So I have to dig my form 4 and form 5 books.

Off course the methods of teaching were helpful because we learned something. The knowledge from FBEPs might help me in the future but at the moment, I just use simple knowledge. For the activities, I have use a lot.

2.2 View of topic taught

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

For today's lesson, I hope they know the examples of chain stores in Brunei like ayamku. I am not sure about akira. I wonder about Akira because the definition for chain store is like must be similar branch in the whole throughout the country. What about Akira? Are they international or global?

2.3 View of how they want to teach

2.1 Now, I like to talk to you about your preparation for the lesson and later I want to talk to you about how you taught the lesson (Before lesson observation)

1) How do you prepare your lesson?

Normally I just refer to the textbook, elementary commerce. The students are supposed to use this textbook. But the problem is that they do not have enough right now. So every time during the lesson I have to prepare the notes for them.

2) Do you have to simplify the topic for teaching?

[Probe for their ways of interpreting and analyzing the topic]

Yeah I do simplify the textbook. For the handouts. Sometimes I just change the words because they are very difficult for students to understand.

3) How do you structure your lesson?

[Probe for the methods/techniques used to make the lesson more explicit to their students]

Later I am going to teach about chain store. So firstly I am going to talk about the main features of the chain store and then the organization. Who control it? How they work the chain store? And lastly the advantages and disadvantages of chain store.

4) Where did you get your resources for the topic?

[Probe for other resources other than textbooks]

I just use the textbook. This is a new topic and my cooperating teacher doesn't have any resources. This is a new subject offered to the students. We don't have any resources in the school. I have to buy this textbook because the school has no more stock. If I didn't have this book, I don't know how to teach. I don't even share with others in other schools. So I have to find my own resources.

5) What are your aims in the lesson?

[Probe: What do you want to achieve?]

For today's lesson, I hope they know the examples of chain stores in Brunei like ayamku. I am not sure about akira. I wonder about Akira because the definition for chain store is like must be similar branch in the whole throughout the country. What about Akira? Are they international or global?

2.4 The way they teach in class

Sabrina, 28/2/05, belait, commerce, form 4

1020: remind stds of pg 2,3, and 4 of their handout

1023 tch: ok everyone, what is an example of a chain store?

Stds: akira, hua ho, sony,

Std: what is a chain store?

Tch: so many singular branch shops situated all over the country

1024 tch: any more boys?

1025 tch: ok, akira, its not all over the country,

tch: huo ho, what do you see there?

Std: department store!
Tch: right department store
Tch: what about hong textile, ayamku, nazmi (teacher wrote on board)
1027 Tch: so can you see all in the country?
Stds: yes
Tch: so they are all chain store, ok all?
Stds: yes
Tch: ok, write there in your handout, examples, ayamku, hong textile and nazmi
Tch: features. What can you see in all these stores?
Stds: the same.
Tch: what is the same? The price? The food?
1029 Tch: write main features; price
tch: what type of service like ayamku?
Std: self-service
Tch: what about designs? Like ayamku?
Std: yes, the same
Tch: you can see from far away the brand, the color
Wrote: chain store, singular branch shop
Control headquarters
Standard price
Efficient controlled and standard method
1033 tch: so what about the price? The price is competitive. So like ayamku and ayam usually the same price.
Like wywy and mobility, so and so the price
1034 tch: u ok?
Stds: yes
1035 tch: who help u? usually you will be helped by shop assistant
1036 tch read the handout and write points on board
tch: what about other fast food?
Stds: kfc , mc donalds,
Tch: but are they the only in Brunei?
Stds: no
Tch: so I'm not quite sure whether they are chain store
Std: tasconi
Tch: yes good
Tch read the points in the handout and write on board

1039 tch: wrote public limited companies on board. So what is it in malay
std: sendirian berhad
tch: yes
1041 tch wrote centralization (bring under the control of a central authority)
tch: so that is the meaning

1042 tch: if it is not centralization. What is it called? Decentralization
1043 wrote transfer form central to local control
tch kept on explaining the content in the handout
1050 lesson ends

2.5 Their reflection of teaching

2.2 Now, I want to talk to you about how you taught just now (after lesson observation)

6) How do you feel about the lesson?

It is a bit different from last time. Last time I was the one who was talking and today somehow they give me feedback. So they are a bit noisy already. I said 'hey..hey..quiet. quiet'. I don't know how to control them.

7) Were you pleased with the way the lesson went? Did it work out the way you had expected?

Not very pleased. But compared to last time, it seems quite ok. At least they gave me some feedback. Because last time, they were just quiet most of the time. Today, have a lot of noise, wah.. so it was not expected.

8) If you are doing the lesson again, is there anything you would like to change?

Actually I plan this lesson according to the notes. So that is the way I teach, according to the notes. Actually I would like to use power point. Like last lesson, I use power point, I bring them to ICT. It is quite effective and I have a few pictures to show them. Pictures did help.

9) Is there anything else you'd like to say about this particular lesson, your planning of it, or your thinking about it that I haven't given you a chance to say?

Maybe my teaching. I got something to say but I don't know how to put in words.

10) Do you think you have learned anything new about teaching from the lesson?

Anything new? Sometimes the students can think much more better than me. I can only think of ayamku and then surprisingly they give me more examples.

11) Do you think that your students have understood what you have taught just now? How do you know?

Yeah, I guess so. I walk around and ask are you still with me. Sometimes I can see they are confused when I ask do you understand? So the way to know is by asking them questions.

12) Have the students enjoyed learning the topic? How do you know?

I guess maybe not as many because not all were responsive. Some just kept quiet. Maybe they don't like the way I teach or whatever. It is kind of boring. Just talking and fill in the blanks. Maybe they are thinking, 'what is this teacher trying to do?'

13) How do you introduce a new concept or new topic?

Actually, I normally link it with the previous one. Because I am linking one by one so I just recall the previous lesson.

14) Do you ask your students to give their own example and explanation?

Yes. Like just now I ask them for example and explanation. For example just now they gave examples in the lesson.

15) Your teaching resources?

I get mostly from books. If I cannot use the internet. I use the biz-ed. Sometimes I use the brown textbook. For introduction, I pick it from there.

16) How useful is the knowledge that you have learned from the university in your teaching?

It is not very related. Whatever I learned at the university, it is too complicated. Here it is really the basic. So I have to dig my form 4 and form 5 books.

Of course the methods of teaching were helpful because we learned something. The knowledge from FBEPs might help me in the future but at the moment, I just use simple knowledge. For the activities, I have used a lot.

17) What do you think is your main problem in teaching commerce? Do you use bilingual?

Not always bilingual. My problem is I cannot think of an activity. I don't know what kind of activity to give to students. I can do talking for the whole lesson, I am the one who does the talking and writing on the board. I can't think of an activity even when I use pair activities. And then they cannot cooperate. When they sit together, they talk and talk. When I go and ask what they are doing, they will say 'I'm thinking'. So when I go away, they talk and talk. I don't know how to control them. It is very hard and because there are only few boys, so boys don't mingle with the girls. So they just sit there. So when I say, 'everybody form a group'. Then they form their own groups. Only all boys group. Very hard. I don't know how to make them form in groups. And then I cannot scold them. They are teenagers, so they know what to do.

STAGE THREE

Interview 3: Conceptions of using subject knowledge to teach

Stage 3

3.1 View of economics

71) Finally, from your point of view, tell me what does it mean to learn economics?

To learn economics, sometimes it's fun. At university, it's fun. I am more aware of the situation after I learned economics.

3.2 View of topics taught

1) What was your favourite or least favourite topic to teach? Why?

My favourite was the large and small scale retailing because it related to them. I taught for several lessons. I asked them to go home and get pictures. I asked them to do a project, I asked them what are the features, like small scale like hawkers, so I asked them to do some project like that. And then they present in the class. They were ok but it was not what I really want, but at least they are doing something. And they never had presentations before. They were quite nervous because it was their first time. The project was I asked them to look for pictures, small scale and large scale. I also used power point to attract their attention, and I used pictures. My cooperating teacher told me that my students couldn't imagine what I was referring to when I explain about large scale retailing when I explained about the features. So that's why I used power point. My least favourite was the introduction part is a bit difficult. Like what is commerce? It's because I came halfway, so I was wondering what should I do, how I should continue.

3) What was the best lesson that you had taught? Why?

I put in a lot of effort was the topic branding. Firstly I show something that has no brand, then I ask the students if they want to buy the thing with no brand, then they give lots of answers. Because normally, when I teach, they kept quiet, so at least, during that lesson, they gave responses like it was not beautiful.

3.4 View of relating economics knowledge to teaching

72) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

From what I learnt at mot, I have learned to make things attractive and try to give examples. So I try to make use of what I learnt, but practically, make use of the examples like story based, really helpful. But since I am teaching commerce, not really a lot, but better than nothing. So I have to review the content again with my knowledge.

3.5 View of school economics or commerce

3.3 View of learning to teach economics/commerce

I want you to tell me about your experience from your teaching practice.

First, I want you to tell me about your experience of teaching the lessons.

1) What was your favourite or least favourite topic to teach? Why?

My favourite was the large and small scale retailing because it related to them. I taught for several lessons. I asked them to go home and get pictures. I asked them to do a project, I asked them what are the features, like small scale like hawkers, so I asked them to do some project like that. And then they present in the class. They were ok but it was not what I really want, but at least they are doing something. And they never had presentations before. they were quite nervous because it was their first time. The project was I asked them to look for pictures, small scale and large scale. I also used power point to attract their attention, and I used pictures. My cooperating teacher told me that my students couldn't imagine what I was referring to when I explain about large scale retailing when I explained about the features. So that's why I used power point. My least favourite was the introduction part is a bit difficult. Like what is commerce? Its because I came halfway, so I was wondering what should I do, how I should continue.

2) What was your favourite resource?

Most of the time I used the internet. but somehow it was too wide already, so I just kept myself to the textbook. Not really my favourite but more convenient and it follows the scheme of work. I just surf, and use the search engine.

3) What was the best lesson that you had taught? Why?

I put in a lot of effort was the topic branding. Firstly I show something that has no brand, then I ask the students if they want to buy the thing with no brand, then they give lots of answers. Because normally, when I teach, they kept quiet, so at least, during that lesson, they gave responses like it was not beautiful.

4) How did you prepare to teach topics that you haven't studied?

I have to study at home. And I have to try the questions.

5) Did you relate local examples in your lessons? How?

(Probe: Did you relate to your students' experience?)

most of the time, like the supermarkets, department stores, and that topic, I like the most, because I can make full use of local examples. Initially, I asked them to look for the pictures and examples, and they give them in the lesson.

6) How did you assess your students' understanding in the lesson? What do you do if your students didn't understand?

I give them something like mcq. For some of the lesson, just to know whether they understand. The next day, I explain the answers for the mcq. Most of the time they are ok. But sometimes, their English is not very good, so I try to explain the difficult one into easy ones.

Now, I want you to tell me about your views as a pre-service teacher learning to teach economics or commerce.

73) Tell me about your view of learning to use your knowledge of economics to teach school economics/commerce? [probe for relationship university economics and school economics]

From what I learnt at mot, I have learned to make things attractive and try to give examples. So I try to make use of what I learnt, but practically, make use of the examples like story based, really helpful. But since I am teaching commerce, not really a lot, but better than nothing. So I have to review the content again with my knowledge.

74) What is your view of learning to be a teacher? [probe for relationship between peers, cooperating teachers, supervisors and lecturers]

Most of the time, I discuss with my colleague. And she gave me ideas. Since my supervisor and lecturer are the same, so most of the time, I contact him through email, so I sent him the notes that I wanted to teach the students, so he commented on them. So most of the time, we contacted thru emails. Frankly, my cooperating teacher, only once in a blue moon, help me. Most of the time, I discuss with my colleague and my lecturer.

75) What else did you learn from your teaching practice? [probe for the role of schools and community]

Lots of schools politics. But the school helped me with manila cards and photocopies. So it helped me with my budget. For me to teach commerce, I got lots of time to prepare.

76) Tell me how your courses at the university have affected how you think about teaching economics/commerce? To help you out, here are the titles of the courses. [Probe for the course of method for teaching economics/commerce]

Maybe I learnt the way to present. Frankly, my English is not very good. So ubd helped me to improve my presentations, like don't talk too fast, etc. I learnt a lot from mot. He really makes us to think. He always ask why and made us to think a lot. He made us to think why the students think this way and not that way.

77) What other experiences that you have had that have affected how you think about teaching economics/commerce?

Not really.

78) Now that you have had experienced teaching practice, if you are to decide, what do you think that pre-service teachers need to learn from courses on teaching economics/ commerce?

If possible, just go through the practice teaching students, with our colleagues giving us comments. Because when we do peer teaching, all of us, we know the topic already, we all just keep quiet, so we don't really experience the way to teach in the real school. At least, we can learn a lot. So that we have the feeling of how to teach.

Lesson Plan: Sabrina

Lesson Plan

Name of Pre-service teacher: Sabrina

Date: Monday, 28th February 2005

Time: 8.40-10.10 (70 minutes)

Subject: Commercial studies

Class: 4B

Topic: 'Large scale retailer'

Sub-topic: Multiple shops (chain store)

Aims:

- To facilitate students to understand Multiple shops

Learning Objectives

By the end of the lesson, students should be able to:

- Classify that multiple shop is a type of large – scale retailing
- Recognize the main features of multiple shop
- Identify the organization of multiple shop
- State the advantages and disadvantages of multiple shop

Teaching Aids

1. Hand Out

Lesson Content Outline:

Introduction

- 1 Teacher will recall previous lessons regarding the few large scale retailers which students had learn.
2. Teacher will ask students to give examples of this kind of large scale retailer.

Development

3. Teacher will ask students the features of the examples given.
4. Teacher will brief students about the organization such as "Are the price the same in all the same?", "who own the shops?" and so on.
5. Teacher will ask students the advantages as well as the disadvantages of the multiple shop.
6. Teacher will move students' attention to the hand out. Teacher will proceed with the handout.

Closure

7. Teacher will sum up the whole topic.

Evaluation:

Students' notes:

Types of large-scale retailing

Multiple shops (chain store)

Examples:

Main Features

1. It consists of many _____ distributed all over the country but under the direct control of a _____.
2. Every branch shop looks very similar since it is _____ in the same manner, has the same name and sells the same goods at _____ which are fixed by headquarters, using the same _____ controlled and standard methods.
3. Goods most often sold through multiple shops consist of one of the following main lines – pharmaceuticals, clothing, food and shoes.
4. Goods are usually on _____ so that customers may personally examine, select and try them on for example shoes and clothing. Prices are _____ and often very _____. Prices are uniform in all branches. There are _____ nearby to help. All branches have almost similar windows display and shop layout.
5. The term of sale is normally _____.
6. Facilities available for customers are kept to the minimum in order to keep costs down. Sometimes, self-service is employed at some fast food chains.
7. Multiple shops owned by manufacturers and it can eliminate the _____.

Organization

1. Most multiple shops operate as _____ with control in the hands of a _____.
2. Although the organization may differ from chain to chain, the basic feature of organization is _____ of buying and administration and the _____ of selling through branches.
3. In _____ separate sections are organized to deal with such activities as buying, warehousing, transport, advertising and _____, finance and general administration under the control of _____ or other _____.
4. Purchases reach branches direct from manufacturers wherever possible, but reserve stocks are held in warehouses often located in the areas they are intended to serve. This ensures _____ and keeps _____. Some multiple shops _____.
5. Every branch shop has its own _____ who actually has very little say in running of the business. Details regarding _____ have to be sent periodically to headquarters. This helps the chain to identify _____ and enables it to instruct suppliers to expand, contract or stop production of particular lines.
6. Central headquarters send out _____ to make regular checks on all branches.

Advantages

1. It buys on favourable terms because of _____ so that it can afford to sell at very _____.
2. It employs _____ for buying, publicity, shop layout and window displays. This is advantageous because each is an expert in his field. For example, a specialist buyer who has a lot of experience in his line of trade can assess accurately the quality of the goods available and there is little possibility of the seller deceiving him.
3. The standardized layout of branch premises, window displays and shop fronts not only helps to _____ but also _____ of the whole chain.
4. Slow-selling lines and surplus stocks in one area can be _____ to more promising areas, instead of having to be cleared off at a loss.
5. The multiple shops _____ and are _____. Losses sustained in one branch can be absorbed in the profits made by other branches and new branches can be opened in areas of developing prosperity to replace unprofitable outlets.
6. It _____ when all branches are included in one advertisement.
7. _____ and standardized procedure are possible.
8. Large number of customers can be achieved through many groups of shops scattered in the country.
9. There is _____ because sales are normally on cash basis.

Disadvantages

1. Too much _____ from headquarters leaves branch managers with little scope of initiative to meet local conditions, though they are sometimes paid a percentage of their sales in addition to their fixed salary as a performance incentive.
2. The _____ means that shop loses customers whose support may offset the cost of providing such facilities.
3. _____ between branch shop staff and customers does not help in establishing loyal clients.
4. _____ is needed to start these shops.
5. _____ as branches increase.
6. Customers have _____ because the shops deal with few articles.

Appendix 14 (A14): Permission letter to the Ministry of Education

22 Jamadil Awal 1425
10 Julai 2004

Assalamualaikum.

Yang Mulia,
Cikgu Apsah binti Hj Abd. Majid
Pengarah Sekolah-Sekolah,
Kementerian Pendidikan,
Negara Brunei Darussalam.

PER: MEMOHON KEBENARAN UNTUK MEMBUAT KAJIAN-KAJIAN DI SEKOLAH-SEKOLAH MENENGAH

Puan Pengarah,

Saya adalah pensyarah dari Universiti Brunei Darussalam yang sedang mengikuti kursus latihan dalam perkhidmatan iaitu dalam jurusan '*PhD in Economics Education*' di Institute of Education, University of London.

Untuk kursus ini, saya adalah dikehendaki membuat kajian-kajian di sekolah-sekolah menengah di Brunei. Ini melibatkan guru-guru *economics* dan *commerce* di sekolah-sekolah menengah. Adalah sebahagian etika kajian saya ini menghendaki saya untuk merahsiakan semua identiti yang terlibat: guru-guru dan sekolah-sekolah. Juga dikehendaki supaya segala data-data hanya akan digunakan khusus untuk kajian ini sahaja. Oleh dengan itu, sukacita saya ingin memohon kebenaran dan keizinan dari pihak Puan Pengarah untuk saya melakukan kajian-kajian di sekolah-sekolah menengah di Brunei Darussalam secara umum dalam tempoh 2 tahun, iaitu bermula dari Ogos 2004 hingga Ogos 2006.

Di atas sokongan dan kebenaran dari pihak Puan Pengarah adalah diucapkan ribuan terima kasih.

Yang menurut perintah,

(Hjh Rosmawijah Hj Jawawi)

Pensyarah,
DASSE, SHBIE,
Universiti Brunei Darussalam.

s.k. Yang Mulia, Setiausaha Ketiga –Pengambilan dan Latihan, Pesuruhanjaya Tinggi, London
Yang Mulia, Pendaftar dan Setiausaha, Universiti Brunei Darussalam
Yang Mulia, Ketua Pengarah Perkhidmatan Awam
Yang Mulia, Dekan, SHBIE, Universiti Brunei Darussalam
Yang Mulia, Ketua Jabatan, DASSE, SHBIE, Universiti Brunei Darussalam

Appendix 15 (A15): Permission letter to the Dean, SHBIE

25th December 2004

To:
Dean,
SHBIE,
Universiti Brunei Darussalam,
Brunei Darussalam.

Dear Sir,

A Study of Student Teachers in Economics and Commerce

I am conducting a study for the dissertation of my PhD programme at the Institute of Education, University of London. The study is focussed on student teachers learning to teach Economics and Commerce during their teaching practice.

To help with this study, I would be most grateful if you would let me visit the student teachers of Economics and Commerce. I would be observing and interviewing the student teachers in the duration of their teaching practice.

Once again, may I thank you for your help with my studies.

Yours sincerely,

[Hajah Rosmawijah Haji Jawawi]
DASSE, SHBIE,
Universiti Brunei Darussalam,
Brunei Darussalam.

Cc: Head of Teaching Practice, SHBIE
Head of DASSE, SHBIE

Appendix 16 (A16): Permission letter to HOD

25th December 2004

To:
HOD Economics and Commerce Teachers,
Secondary Schools,
Brunei Darussalam.

Dear Sir/Madam,

A Study of Student Teachers in Economics and Commerce

I am conducting a study for the dissertation of my PhD programme at the Institute of Education, University of London. The study is focussed on student teachers learning to teach Economics and Commerce during their teaching practice.

To help with this study, I would be most grateful if you would let me visit the student teachers. I would be observing and interviewing the student teachers in the duration of their teaching practice.

Once again, may I thank you for your help with my studies.

Yours sincerely,

[Hajah Rosmawijah Haji Jawawi]
PhD Student,
Institute of Education, University of London,
London, United Kingdom.

Appendix 17 (A17): Permission letter to supervisors

25th December 2004

To:
Supervisors,
Secondary Teaching Practice,
SHBIE,
Universiti Brunei Darussalam,
Brunei Darussalam.

Dear Colleagues,

A Study of Student Teachers in Economics and Commerce

I am conducting a study for the dissertation of my PhD programme at the Institute of Education, University of London. The study is focussed on student teachers learning to teach Economics and Commerce during their teaching practice.

To help with this study, I would be most grateful if you would let me visit your student teachers. I would be observing and interviewing the student teachers in the duration of their teaching practice.

Once again, may I thank you for your help with my studies.

Yours sincerely,

[Hajah Rosmawijah Haji Jawawi]
DASSE, SHBIE,
Universiti Brunei Darussalam,
Brunei Darussalam.

Appendix 18 (A18): Permission letter to pre-service teachers

25th December 2004

To:
Student Teachers,
Economics and Commerce,
SHBIE,
Universiti Brunei Darussalam,
Brunei Darussalam.

Dear Student Teachers,

A Study of Student Teachers in Economics and Commerce

I am conducting a study for the dissertation of my PhD programme at the Institute of Education, University of London. The study is focussed on student teachers learning to teach Economics and Commerce during their teaching practice.

To help with this study, I would be most grateful if you would let me visit you. During the visit, I would wish to observe and interview you. If you are willing to receive a visit from me, please fill in your details below. **Your name and your responses will be treated in the strictest confidence.**

Name:

Mobile:

Home Tel:

Email:

Home Address:

Signature:

Once again, may I thank you for your help with my studies.

Yours sincerely,

[Hajah Rosmawijah Haji Jawawi]