

**Student perceptions of influences on  
their study experiences in a distance  
learning Accounting course and  
implications for course design**

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## Abstract

This thesis is located in the arena of a distance learning accounting course of a vocational nature delivered to working managers. It is concerned with identifying and exploring students' perceptions of influences upon their study experiences. The influences are drawn from elements of the course design, characteristics of the students, and their inter-action. Data is collected through semi-structured interviews from thirty eight past students. The data are explored using the techniques of content analysis, repertory grid analysis, and laddering. The exploration generates findings concerning the most significant influences, suggesting indicative associations between sets of student characteristics and elements of course design and course achievement measured through academic scores. Typologies of groups of students are identified and linked to those scores. Particularly influential, based on such associations, are domestic circumstances, nature of work in relation to budget management and financial decision making, and levels of maths and PC skills. Further exploration reveals a gender divide, with females performing less well than males, with domestic circumstances and nature of work being of great significance. This thesis contributes new insights into the student experience, with practical implications for course design.

### **KEY WORDS**

*Accounting education, curriculum, academic performance, gender issues in learning.*

## Declaration

I hereby declare that, except where explicit attribution is made, the work presented in this thesis is entirely my own.

Word count (exclusive of appendices, list of references and bibliographies but including footnotes, endnotes, glossary, maps, diagrams and tables):

**39,878 words** (*exclusive of supporting statement*)

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# Statement in support of thesis

## 1 Introduction

The purpose of the statement is to summarise areas I have covered across my EdD studies, highlighting links between the elements of the programme. It provides insights into the knowledge, understanding and skills I have acquired, their application in extending my professional understanding, and developing skills in research, evaluation and reflection on practice.

My thesis is titled **Student perceptions of influences on their study experiences in a distance learning Accounting course and implications for course design.** Studies undertaken in EdD Stages 1 and 2 have provided the building blocks for the thesis design, implementation and analysis, and consequential critical reflection. The thesis seeks to identify and explore issues and factors students perceive as influencing their study experiences, and to determine any consequential implications for amendments to course design. This involves i) establishing elements of the course viewed by students as being key course components, ii) identifying circumstances and characteristics of students which may impact positively or negatively upon their study experiences, and iii) exploring any associations between the elements and those circumstances and characteristics. The findings and conclusions are used to inform course curriculum design considerations in the context of improving the student study experience.

It is my contention that the work undertaken in Stages 1 and 2 has prepared me to undertake such considerations.

## **2 Studies in Stages 1 and 2**

Stage 1 provided an underpinning for research design and application in relation to both the generics of research methodology, and my chosen area of broad interest, *Curriculum Policy and Practice*. Stage 2, with its focus on the Institution Focus Study (IFS), allowed me to build upon and apply my Stage 1 studies.

### **2.1 Stage 1**

Each of the six taught modules in Stage 1 contributed significantly to my development of a robust and well grounded enquiry within the IFS in Stage 2, and the thesis in Stage 3. The rationale for this assertion is reflected below in descriptions of work undertaken.

#### **2.1.1 Foundations of Professionalism in Education**

This module examined the origin, nature and practice of professionalism in education, allowing me to reflect upon what it means to be a professional educator in higher education. My assignment was **Change in Higher Education: Implications for the Academic Professional**. This enabled me to capture reflections upon *Professionalism in Education* and their significance in the context of change in the arena of my work as a lecturer. This involved identifying the drivers for reflective practice, and a critique of the evolution of opinions relating to what it means to be a professional. The work of Stenhouse, Schon and Barnett proved to be great value. Their thoughts fed into responses to the challenge of managing change and its significance for the HE academic professional in a world in which, paradoxically, change is a constant.

### 2.1.2 Methods of Enquiry 1 and 2

These were concerned with establishing insights into the process of research, and critiques of different forms of educational research and their outputs, particularly important given my situation as a first time researcher.

In MOE 1, my assignment was **Conducting Educational Research - *A Critique of the Experimental Approach In A Context Of Accounting Education***. This examined characteristics and attributes of the experimental approach to research methodology. It identified and justified the circumstances in which the use of this approach is appropriate and inappropriate. It critiqued findings of a published piece of research in the area of accounting education. It concluded that the research study under examination had inherent design and execution weaknesses, generating unsustainable and non-generalisable conclusions. I gained an understanding of the challenges associated with conducting research in a practical sense. Additionally, it provided a context for my intention to use an experimental approach in MOE2, given its strengths relating to validity and reliability.

In MOE 2, my assignment was **Applying Research Processes and Skills in a Relevant Professional Context - *A Quasi-experimental Approach to Assessing the Impact of Additional Course Support upon Performance in an Accounting & Computing Course***. Its focus was research design issues. I adopted a quasi-experimental approach to the design for a small research project, collecting and analysing data. The project sought to establish whether or not, and if so to what degree, additional academic and/or work based support improves the academic performance of students studying a primarily distance learning based course. The findings have professional significance to key stakeholders: the students, the course

provider (the Open University Business School - OUBS), and the students' sponsor (Marks and Spencer). Any additional support provided has resource implications for OUBS and the sponsor, with both parties interested in a cost-benefit analysis, with benefit defined as improved student performance. Key considerations were validity, reliability and generalisability, involving the establishment of control and experimental groups, and the collection of relevant data. The data were means and standard deviations for scores for assignments and examinations and their combination. Analysis of the data collected showed that the experimental group performed better – markedly better - than the control group. The research outputs indicated that the better performance achieved is likely to be the result of the additional support. That said, the research design and outputs were critiqued, highlighting strengths and weaknesses, with suggestions as to how perceived weaknesses might be overcome.

### **2.1.3 Advanced Research Methods**

This module was concerned with critical reflection of research design, implementation and analysis.

My assignment was **Philosophical Considerations for Practical Research**. It compared and contrasted two approaches – quantitative and qualitative, to data collection and analysis in relation to the role of face to face tuition via day schools and tutorials within a distance learning accounting course. I identified and contrasted the epistemological, ontological and methodological assumptions underpinning each approach. I concluded that that a quantitative approach correlating attendance at such sessions and course outcomes would be a potentially useful exercise, but that further

illumination and richness would arise from a qualitative approach capturing student perceptions of the benefits of face to face sessions.

#### **2.1.4 Curriculum Policy and Practice**

In this module I was concerned with establishing a framework for curriculum evaluation, consequently gaining insights into issues in curriculum design. The first of two assignments was **Understanding Curriculum Evaluation – *Significance for an OUBS Accounting Course***, seeking to establish an approach to curriculum evaluation. Contextually, my aspirations as a course evaluator were identified. Thereafter the theoretical nature of evaluation was examined, and contrasted with the then current evaluation process for the course. It indicated that the existing process was seriously flawed, with no attempts to link evaluation with student outcomes or with course evolution. It concluded that an approach based on the model of *the teacher as a researcher* is appropriate, applied in the context of *action research*, and requiring the evaluator to act as a *reflective practitioner*. It further concluded that the course team would need to initiate a culture change in a continual search for knowledge about the course, involving the views of students, moving from being a *restricted professional* to an *extended professional*.

The second assignment focused on how curriculum policy is established. I examined this through a paper titled **Policy Development – Theory and Reality in the Context of the Development of an IT Skills Policy in the Open University Business School**. It explored the nature and significance of policy, examined the theoretical underpinnings of policy development and its role in education management, distinguished between policy science and policy scholarship, and developed a model for policy development. That model was matched against the reality of an OUBS

policy paper, concluding that the OUBS approach was ad hoc and without substance, suggesting improvements.

## **2.2 The IFS**

The IFS is intended to show how Stage 1 studies have been applied in a manner which supports my professional development and extended understanding of my professional role. It provides the link between Stage 1 learning and the Stage 3 thesis, demonstrating integration of elements of the EdD.

The thrust of the IFS concerned the identification of determinants of academic performance within an OUBS Accounting course. In the context of my role as a reflective professional, the research sought to identify:

- Factors which may impact upon the academic performance of B655 students
- The relative degrees of impact of individual factors
- Arising from the determination and significance of factors, the identification of issues for further investigation.

A literature review was used to contextualise and conceptualise. This revealed that most prior research was concerned with six factors: Gender,

Prior accounting knowledge, Academic aptitude, Mathematics background, Previous working experience and Age. This was followed by methodological considerations to establish a design framework to gather and analyse data relating to those factors, and to identify any additional influential factors. The stance adopted was quantitative and through the application of SPSS to profiles of students – backgrounds and course academic performance – established relationships based on degrees of significance between profiles and performance. It found that each of the six factors was

significant but there were additional factors potentially influencing performance: Nature and length of financially-related work experience, Attendance at optional face-to-face sessions, Prior (or lack of) experience of distance learning, Family and domestic circumstances, Level of PC/spread-sheeting ability, Previous training in/exposure to financial skills/knowledge acquisition.

The findings were critiqued and the conclusion drawn that a more qualitative approach via interview data should be sought in the thesis in Stage 3.

### **3 The thesis**

The broad thrust of the thesis is concerned with identifying and gaining insights into phenomena perceived by students as influencing their study experience when studying an introductory level, supported distance learning accounting course for working managers. Such insights are then used to inform course curriculum design considerations in the context of fostering and facilitating improved study experiences of students. In seeking such insights, a deductive approach is adopted in the enquiry. If deductive, ideas and theories are identified and subsequently tested, espousing a nomothetic methodology. If inductive, the exploration of data and consequential findings are subsequently linked back to a literature review and prior research, employing an idiographic methodology. The nature of this study builds upon themes identified in the IFS. Accordingly it is possible to identify broad research questions as a departure point. The appropriateness of those questions will be confirmed or amended by the literature review. Subsequently, links will be made between the data generated through and findings from the study and prior research. Accordingly, an inductive approach is adopted, using the themes of initial research questions as a

guide for the research approach. The initial research questions are detailed below and will be reviewed at the end of the literature review in chapter 2:

1. *What are the elements with the course design perceived by students as being key components within the student study experience, and requiring successful engagement with?*
2. *What factors relating to their own characteristics and circumstances do students perceive as providing advantage/disadvantage to them as they endeavour to engage with those elements identified as being key components within the study experience?*
3. *Are there typologies of characteristics of students which are associated with helping or hindering the study experience and contribute towards higher/lower academic scores?*
4. *What lessons emerge with regard to improving the student study experience through amendments to the curriculum design, with a view to more successful academic outcomes as evidenced through course scores?*

The process of the thesis generation appeared at first sight to be achievable if challenging. The introduction in chapter 1 provides a focus and sets a 'frame of mind'. The literature review in chapter 2 fulfilled its purpose of establishing prior knowledge, and their associated strengths and limitations, particularly challenges stemming from the primarily quantitative approach adopted in much prior research. It confirmed my research questions, suggesting a more qualitative approach be employed. The methodological considerations resulted in a combined quantitative/qualitative approach, identifying themes through content analysis, developed further through repertory grid analysis.

The findings have suggested that key amongst the issues OUBS should consider is gender in general, and matters associated with gender such as domestic responsibilities and reduced work experience of females. This is an area demanding attention given the OU's commitment to equal opportunities in every sense.



The requirement of the EdD to complete the doctorate includes demonstration of being able to design and conduct an appropriate research inquiry. The experience has been painful in places, agonising in parts, but in essence I am satisfied that I have responded to challenges in an appropriate and meaningful way. This has introduced a new dimension to my scholarship, enabling me to think about aspects of my professional work to which I had not been exposed before. The learning process I have been involved in will facilitate the future design, development, delivery and evaluation of educational curricula, based upon sound frameworks derived from my study of research design and conduct.

Derived from this study, I have already engaged in four presentations at conferences, both national and international. I anticipate being able to derive papers for publication, possibly in journals associated with Accounting Education, Open and Distance Learning, and Personal Construct Theory (using repertory grid analysis). The foundations for professional scholarship and development have been laid and will be built upon.

# Chapter 1

## **Background to and drivers for this study**

### **Introduction**

This chapter introduces and justifies the focus and nature of the area of research enquiry of this thesis. The enquiry is an investigation which seeks to identify phenomena impacting positively and negatively upon the study experience of students on a distance-learning accounting course for working managers, and assess the implications for curriculum design. In so doing, the enquiry:

- identifies those components of the course curriculum perceived by students as significant elements within the course of study, elements requiring successful engagement with in the context of contributing to a positive/negative study experience
- identifies those characteristics of students, as perceived by students, as helping or hindering their engagement with those components, impacting positively or negatively upon the study experience
- based on typologies of characteristics, establishes profiles of groups of students who engage well or otherwise with the course of study in relation to academic scores
- generates findings and conclusions which may be used by course curriculum designers in amending the existing course curriculum, and/or developing new curricula.

This chapter, first, places the enquiry in the contexts of professional relevance in general, and professional development specifically; it thus provides a setting for the focus and orientation of the study. Thereafter, the drivers for the enquiry are established and resultant research questions articulated, with a number of research issues identified. Accordingly, in this chapter, the broad thrust of, and drivers for, the research are explained, providing a focus for the literature review in chapter 2 and subsequent considerations regarding the design and implementation of the study and the analysis of data in later chapters.

## **1.1 Contexts for this Thesis**

This study is set against the contexts of professional relevance in general and professional development specifically. This study contributes to my professional role as an educator by advancing my understanding of the study experiences of students and the consequential implications for curriculum design. This involves identifying matters and issues perceived by students as impacting upon their study experiences. Such matters and issues comprise components of the course, characteristics of students, and connections between the two articulated through the formulation of groups of typologies linked to academic scores. It allows me to investigate an area of professional relevance, through the application of critical analysis to data relating to the study experience collected from students through interviews. The aspects of professional relevance, professional development and associated reflective practice are drivers of the thesis and are worthy of some further consideration.

## 1.2 The author as a reflective professional

The emergence of the notion of reflective thinking within education may be attributed to Dewey (1933), suggesting it is a conscious, voluntary and purposeful activity which provides an opportunity to stand back from day-to-day engagement with work (1933: 287-289). Stenhouse (1975) recognises the benefits of reflective thinking within education in that it can ...*tutor our judgement* (1975: 6). Schön (1983) develops Dewey's concept by advocating that reflective thinking must result in action (1983: 62-3). It should be undertaken systematically on a review basis, encompassing all aspects of the pedagogical process, shifting from reflective thinking to reflective practice. As such, pedagogical reflective practice should focus upon pedagogical aims, upon how they are achieved, and upon process via continuing and on-going assessment of that process, resulting in improvement to the pedagogical process. That said, Schön's view of continuing and on-going assessment is based upon the examination of matters that go wrong. Mezirow (1991) suggests that Schön endorses *reflective action* as opposed to *critical reflection*. He distinguishes between the two, viewing the distinction as being the former with a focus on problem definition, and the latter as problem solving. Day and Pennington (1993: 251) develop this, asserting that meaning and validity is obtained by the educational practitioner by reflection being grounded in assessments of working practices across the curriculum, and should reflect the range of these practices, as well as their epistemological and ethical basis. Edmunds and West (2005) assert that whilst such reflection is important in any service organisation, it is particularly so in distance learning. They go as far as to say (*ibid*: 39) that reflective practice should be institutionalised ... *to make it simply part of the job*. These considerations provide a relevant context for this study.

Another context is the backdrop of environment. The evolution of the reflective practice through the 1970s, 1980s and 1990s took place in an environment which was changing gradually, changes which gathered apace towards the end of the 1990s. Light and Cox (2001: 11) point out, illustratively, that Schön's concept, whilst citing reflection upon situations and events, assumes a *stormless environment* in which situations and events take place, and that the reality of the world is very different. They suggest the educational process is subject to change, change which is ever present, generating a multitude of contexts, and, consequently, a need for the reflective practitioner to evolve to become the reflective professional. This need is derived from the recognition of the potential impacts of change upon the wider and professional contexts of the educational process, and a requirement to manage such changes on an on-going basis.

Changes in the UK education environment - the expansion in student numbers in the late 1980s and early 1990s, followed by capping of student numbers and then further expansion through widening participation, new funding systems, required efficiency gains, exhortations to respond to the market place, 'top-up' fees, and teaching and research quality assessments - have resulted in ever increasing pressures on both academic and non-academic staff. Barnett (1997) identifies a consequence of these changes as the emergence of a debate regarding the nature of education. He notes the growth of tension between the historically long-standing nature of education derived from academic freedom but accompanied by little responsibility, and the demands of society for accountability. Barnett (*ibid*) builds upon this tension by identifying two dichotomous streams. One is academic, and is concerned with knowledge for knowledge's sake, the other, being operational/vocational, is concerned with outcomes connected with economic criteria. These contexts are described by Light

and Cox (2001: 12) as resulting in *supercomplexity*, generating a need for reflective professionals to acquire the ability to situate themselves and their practice within an environment of substantial uncertainty and change, and competing demands. Light and Cox summarise the changes as including those shown in Table 1.1.

• Changing academic roles
• Changing knowledge bases
• Changing ways of knowing
• Changing nature of the student body
• Changing student needs
• Changing departmental requirements
• Changing institutional demands
• Changing external agency demands
• Changing professional accreditation demands

**Table 1.1** *Changes in the educational environment (Light and Cox, 2001)*

These changes have all, to a lesser or greater degree, been experienced by and impacted upon myself in my environments in a self-financing Business School in the UK Higher Education sector (the Open University Business School - OUBS), and more recently – having moved academic positions - in a newly founded Business School, (the School of Business and Management, Queen Mary, University of London – SBM) emphasising the need for constant reflection, assessment of findings generated, and implementation of consequential actions.

The reflective process within this thesis:

- promotes investigations contributing to advancing my professional development and role within education
- makes a distinct contribution to knowledge in my selected area within the education arena, affording evidence of originality by the discovery of new facts and/or by the exercise of independent critical power, and

- demonstrates my understanding of professionalism and of my own professional role, contributing to my own professional development.

In seeking to arrive at findings, the aims of this enquiry and the associated research questions must be formulated and articulated.

### **1.3 Aims of the enquiry**

The origins of the aims of this enquiry may be found in my reflections upon the generalities of:

- what might act as influences upon a study experience enabling some students to perform well – or not so well - in academic terms as judged by course scores
- what knowledge about such influences might contribute, if anything, to considerations and reflections regarding possible amendments to curriculum design, with a view to improving the student study experience, helping to generate, potentially, better performance.

Reflection on my part has determined more specific thoughts and questions about the influences on the student study experience and potential associated impacts upon academic performance. These provide the underpinning for the broad aims of the enquiry, shown in Table 1.2.

<ul style="list-style-type: none"> <li>• To identify and gain insights into phenomena perceived by students as influencing their study experience when studying an introductory level, supported distance learning accounting course for working managers</li> </ul>
<ul style="list-style-type: none"> <li>• To explore identified phenomena through qualitative and, where and if appropriate, quantitative investigations and analyses</li> </ul>
<ul style="list-style-type: none"> <li>• To use the findings and conclusions from that exploration to identify typologies of characteristics associated with course attainment as reflected within course scores</li> </ul>
<ul style="list-style-type: none"> <li>• To inform course curriculum design considerations in the context of fostering and facilitating improved study experiences of students.</li> </ul>

**Table 1.2** *Broad aims of the enquiry*

#### 1.4 The arena for the enquiry

At the time of commencement of my study, I was Senior Lecturer in Accounting and Finance in the Open University Business School (OUBS), and assumed the role of Course Team Chair of a particular Accounting course in 1994. That accounting course was *Accounting for Managers* (OUBS course-code reference B655). This is a course within the portfolio of courses of OUBS. Note that for the purposes of this enquiry, B655 is hereafter referred to in the present rather than past tense. The course is of six months duration, presented twice a year in May and October. OUBS is a self-financing Faculty within the Open University (OU) and B655 a full-fee, supported distance learning course, ‘Supported’ in this context reflects the provision by OUBS to students of a tutor for *ad hoc* consultation via email and/or telephone, and a number of formal but optional face to face day schools and tutorials (comprising two 5 hour day-schools and four 2 hour tutorials for B655). B655 is one of three modules comprising the OUBS Certificate in Management (CIM) Programme. Accordingly, it must be passed before the CIM can be awarded, although the modules may be studied in any order. The CIM is open access requiring no entrance qualifications. Successful completion of the CIM, followed by successful



completion through further study of the Diploma in Management (DIM) satisfies MBA Stage 1 pass requirements, allowing progress to MBA Stage 2 final studies for students wishing to undertake such further studies.

B655 is geared at an introductory level and assumes no prior knowledge of accounting and finance. It comprises text, audio-visual and software materials and the tutor support referred to earlier. A full course description is contained in Appendix A. In the UK and the rest of Western Europe student enrolments are usually within the range of 400-500 students per presentation. In any one presentation, on average (over ten presentations) about 80% of the students are sponsored by their employers, most having their fees paid 'up front', but with some being reimbursed upon successful completion of the course (Source: OUBS School Board Papers 2002-2006). With very few exceptions, the students, female and male, are all working managers in employment within all sizes and types of organisations, across all sectors. Some students are budget holders whilst others have little practical financial experience but recognise that financial knowledge is increasingly required within their jobs. The course is available both as a standalone module and as one module within the three-module CIM. On average, about 80% of students on any one presentation undertake the course as part of the CIM. The remainder enrol on the course with the express purpose, at least at the outset, of gaining knowledge and skills to help in cost and budget management, and financial decision making in the work-place. On average, about 60% of students who complete the CIM progress through to the DIM, with about 60% of Diplomates subsequently proceeding to MBA Stage 2. (Source of statistics and associated data: OUBS School Board Papers 2002-2006.) A combination of the financial implications of self-financing status, an implicit desire to witness the academic progress of students, and changes in the

external environment, has brought the issue of student retention to the fore.

#### 1.4.1 Student retention

In 2002, the OU commenced an initiative with a view to improving the levels of student retention by reducing attrition rates. The drivers for this initiative, as defined by the OU, are detailed in Table 1.3. The financial significance of student attrition/retention is articulated in a series of internal OUBS reports (Source: OUBS Internal Reports, 2002-06). It is estimated by OUBS that an increase in 10% in student progression rates from the CIM Programme of study to the Diploma in Management (DIM) Programme would, on an annual basis, generate additional fee income of circa £750,000. In addition, the cost of gaining a new student is, on average, £124, whilst the cost following special promotion campaigns is £395. OUBS set out to analyse where and why student attrition occurs. (The financial figures cited are based on 2006 fee levels.) OUBS acknowledges through its internal reports that very little is known about the profiles or drivers for actions of students who do not progress within programmes and/or through programmes.

<ul style="list-style-type: none"><li>• The OU's ethical obligation to improve the quality of the student experience</li></ul>
<ul style="list-style-type: none"><li>• The desirability and benefits of improving relationships between the OU and students</li></ul>
<ul style="list-style-type: none"><li>• An explicit recognition of the competitive nature of the higher education world, particularly in the UK and other parts of Europe</li></ul>
<ul style="list-style-type: none"><li>• The reality of the financial consequences of student attrition in an arena increasingly impacted upon by resource issues, both external and internal to the OU</li></ul>
<ul style="list-style-type: none"><li>• The moves by the UK government and its agencies to monitor attrition and progress rates of University students</li></ul>

Table 1.3 *The OU's drivers for the student retention initiative*

#### **1.4.2 Understanding students' profiles and characteristics**

OUBS wishes to find out much more about its students via more comprehensive student profiles and any links to successful academic performance. OUBS has asked course teams to undertake investigations which might contribute data and information to the formulation of an appropriate OUBS-wide study.

Some students are clear in the articulation of their drivers for studying B655. Some wish to gain academic qualifications and financial knowledge, understanding and skills. Others seek financial acumen, with academic achievement being a welcome addition. Some seek qualifications, and any accounting/finance content is viewed as a necessary evil. Whichever the driver may be, OUBS seeks to provide a positive and meaningful study experience.

At the start of B655, students view an A/V component. It is a ten minute DVD video segment introducing the course: *Looking Ahead*, a segment which reflects the motivation to provide a positive student experience. In that segment, as Course Chair, I detail the ways in which the course will help managers to gain financial knowledge and understanding, and acquire spread-sheeting skills to help apply financial skills to advantage at work. It emphasises that they will not have to worry about the challenges associated with gaining and acquiring these attributes. I then look directly at the camera, and thus at the student, and state categorically: *That's a promise.*

My general and specific reflections referred to earlier concerning why some students perform well and others not so well, are brought into sharp focus by such a

statement.

A further reflection causes me to consider whether the curriculum design and its impact upon the student study experience actually delivers on that promise: if so, how and why, and if not, why not. This thesis will assist in assessing the degree to which the promise is delivered, and in keeping it.

The primary data in this study is collected from thirty eight students who have all studied B655. They comprise twenty four male (63%) and fourteen female (37%) managers from across the private, public and voluntary sectors, with an overall mean age of twenty nine years, with a mean male age of thirty one, and a female mean of twenty seven years. A fuller picture is presented in Table 4.1 in chapter 4.

## **1.5 The challenge and the questions**

The foregoing description of the background to this study provides a setting against which the aims of the enquiry may be set. The pursuit of those aims requires the formulation of research questions, questions providing a focus, steer and structure for this enquiry. The adoption of an inductive approach was explained on pages 15 and 16. Such questions are captured in Table 1.4. The first two questions articulate the essence of the enquiry but are dependent on a range of associated aspects as reflected in questions 2 to 4.

1. What are the elements with the course design perceived by students as being key components within the student study experience, and requiring successful engagement with?
2. What factors relating to their own characteristics and circumstances do students perceive as providing advantage/disadvantage to them as they endeavour to engage with those elements identified as being key components within the study experience?
3. Are there typologies of characteristics of students which are associated with helping or hindering the study experience and contribute towards higher/lower academic scores?
4. What lessons emerge with regard to improving the student study experience through amendments to the curriculum design, with a view to more successful academic outcomes as evidenced through course scores?

**Table 1.4** *Research questions this study seeks to answer*

## 1.6 Responding to the challenge, answering the questions

Responding to the challenge requires a framework to facilitate the carrying out of an enquiry. An appropriate framework should provide, put simply, for the formulation and implementation of an appropriate design for the focus of the enquiry, with an analysis of data collected in the study, leading to conclusions. A template for the overall design of this enquiry is shown in Table 1.5.

Thrust	Nature and content
Orientation	<i>Chapter 1 – Setting the scene</i> This chapter provides a context to and focus for the study, resulting in research questions
	<i>Chapter 2 – Contextualisation and conceptualisation through a literature review</i> This chapter establishes what is already known about the field the research questions relate to, and justifies the proposed enquiry as an extension of this prior knowledge. The review informs the study, and, any modification to the research questions formulated initially

	in chapter 1.
<b>Research design and methodology</b>	<p><b><i>Chapter 3 – Methodology and design</i></b>  This chapter examines the issues concerning the overall thrust of approach to this study, and the selection of an appropriate methodology. It emphasises the advantages to this study of a qualitative approach, employing semi-structured interviews and subsequent content and thematic analyses of interview transcripts. It takes account of ethical considerations. It concludes with a description of and template for the accompanying design.</p>
<b>Data analysis, establishment of findings, and discussion of findings</b>	<p><b><i>Chapter 4 – Implementation and analysis.</i></b>  This chapter describes how the study was implemented and the data collected. It then shows how that data was initially analysed. Accordingly, it confirms the methodology employed and applies appropriate analyses, providing initial findings. It digs and travels beneath the surface to provide greater illumination through a range of techniques derived from repertory grid analysis and laddering. The analyses identify student perceptions of what are key elements within the study experience, of which of their own characteristics and circumstances help or hinder engagement with those key elements. It establishes findings from the data gathered.</p> <p><b><i>Chapter 5 – Discussion of findings.</i></b>  This chapter takes further the analyses in chapter 4, discussing the findings. In so doing it links the analyses to the literature review and research questions. The linkages established provide a route to the identification of typologies of characteristics and circumstances of students associated with good/not-so-good study experiences and course scores attained.</p>
<b>Presenting and reporting the results</b>	<p><b><i>Chapter 6 – Conclusions</i></b>  This chapter reviews and critiques the collection and analysis of the data analyses and the findings. It explains the conclusions drawn and interprets their significance in light of the aims of the enquiry. It places the study in the context of professional development. It identifies areas for future investigation.</p>

Table 1.5 *A framework for this study*

## 1.7 Chapter 1 in review: implications for the orientation of this study

This chapter has sought to provide a firm base for the nature, scope and direction of the study. It has provided a range of contexts: the changing educational arena; the

desirability of reflective practice as a professional; the specific OU-related driver of improved student retention. The considerations have led to the articulation of four broad aims for the enquiry and the formulation of four relevant research questions. A broad framework for the study has been established. Chapter 2 begins the search for answers to the research questions via an examination of prior knowledge, including a review of prior B655-related research, and a literature review revealing issues, considerations and views pertinent to the area of enquiry. Such considerations and views will inform the appropriateness, or otherwise, of the research questions, and contribute to the detail of the research methodology and design.

## Chapter 2

### **Contextualisation and conceptualisation: literature review**

#### **Introduction**

This chapter reviews a range of literature and prior knowledge relating to previous research concerning issues and factors associated with the focus of this enquiry. In so doing, it provides a base foundation for the study through the establishment of what is and is not known. It links the literature review to the approach to be used in the enquiry. The justification for an inductive rather than a deductive approach was articulated on pages 15 and 16 earlier, resulting in initial research questions being formulated. The literature review indicates where confirmation or refinement of ideas may occur. This enables the direction for the study to be reviewed, leading to confirmation or amendment of the initial research questions as appropriate. In establishing the foundation it looks at a summation of existing literature and studies concerning determinants of academic performance in accounting courses. In light of the contexts of this study relating to distance learning, adult learners, and male/female students, it also reviews relevant theories relating to open and distance learning and adult education, and studies concerning gender issues. The chapter ends with conclusions being drawn regarding the focus and direction of this study and confirmation of the research questions, and implications for the formulation of an appropriate strategy for data collection, and interrogation, analyses and understanding of that data.



## **2.1 A review of research relating specifically to determinants on academic performance in accounting courses**

Much of the relevant prior research relating to the identification of major determinants upon performance in accounting studies focuses on a) the USA, South East Asia and the Pacific Rim with relatively little focus on the UK, and b) on undergraduate 'face to face' learning. Accordingly, this study with its focus on a UK-located distance learning course for working managers, may contribute new knowledge to the area.

In the geographical areas where much research is focused, Accountancy is perceived as a desirable profession to enter, with consequential high demand for relatively few places on Accountancy degrees. This accounts for the focus on undergraduate accounting courses in non-distance learning courses. In that arena, education researchers have sought to identify what can affect student academic performance and/or what can predict academic success in undergraduate accounting degrees. Examples, on a non-exclusive list basis, include Dockweiler and Willis (1984) Doran (1991), Gul and Fong (1993), Wong and Chia (1996), Koh and Koh (1999). Relatively little research of substance exists concerning Accountancy courses in which the emphasis is on equipping managers with the knowledge, understanding and skills to better manage budgets and make financial decisions. The same applies to open and distance learning courses: in comparison to 'face to face' learning, little research exists. The major study concerning open and distance learning (Kember, 1995) is considered in section 2.2.1. These contexts further justify the drivers of this study: contributing new knowledge and enhancing my professional development.

### 2.1.1 Prior research into Accounting studies: a six factor model

Studies such as those detailed above, and others including Eskew and Farley (1988), Doran *et al.* (1991) and Rebele *et al.*, (1991), focus on what might be considered a logical but perhaps somewhat limited range of variables as potential factors impacting upon academic performance. Later studies build on those prior studies, often through replication, and thus continue the focus on that limited range of variables. Furthermore, the research is primarily quantitative, linking factors to academic scores through empirical analyses and lacking the illumination often emerging from interviews and other qualitative investigations.

Koh and Koh (1999) provide a summation of major pieces of work in this area. They note that the majority of work is characterised by a common focus on a limited number of variables, comprising six potential factors, factors shown in Table 2.1.

- Gender
- Prior accounting knowledge
- Academic aptitude
- Mathematics background
- Previous working experience
- Age

**Table 2.1** *A summation of variables considered in much prior research: a six factor model (Koh and Koh, 1999)*

Bartlett *et al.*, (1993) and Koh and Koh (1999) agree that of the six factors, *previous working experience* and *age* have received the least attention in the literature. These limitations enhance the drivers for the inclusion of these two factors in this study. The results of six factor model-related research are, in the main, relatively inconclusive and, indeed, conflicting, suggesting that more comprehensive research

needs to be conducted, employing more complete models, particularly ones that reflect a more qualitative element. A brief summary and discussion of the main findings in relation to previous research follows.

#### **2.1.1.1 Gender**

The motivation for gender studies in this area has been prompted by an increase in the number of females studying for accountancy degrees, particularly in the USA and UK (Mutchler *et al.*, 1987). The research outputs are, to say the least, conflicting and inconclusive. Mutchler *et al.* (1987) and Tyson (1989) indicate better performance by females in both mean scores and grade of achievement. In contrast, Lipe (1989) and Williams (1991) find higher mean and grade results achieved by males. Doran *et al.* (1991) reflect mixed and contrasting results, with a range of others studies concluding that gender has no systematic impact (Canlar and Bristol 1988, Eskew and Faley 1988, Carpenter *et al.* 1993, and Gist *et al.* 1996). Koh and Koh (1999) provide a longitudinal study showing males achieving better performance than females, concluding that in their study at least, gender is highly significant as a determinant of performance. The study by Doran *et al.* shows mixed results, with males performing significantly better in the early parts of the course, but not so in later parts. Koh and Koh (1999) also conclude this. Research by Mitchell (1988) and Ravenscroft and Buckless (1992) indicate that teaching styles of and assessment by academic staff can be influenced by gender. These researchers suggest that, consequently, the gender of students should not be identifiable from assessment submissions including examination scripts. Work by Gammie *et al.*, (2003), reviews prior research on the impact of gender on undergraduate accounting performance. They observe conflicting results but note that some of the prior literature suggests that gender differences are dependent on the type of assessment utilised, reporting

that females tend to perform better than males in coursework assessments with the position being reversed for examinations. Gammie *et al. (ibid)* examine gender differences across both prior-to and post entry into an Accounting and Finance degree over three years, identifying only two gender differences: females outperform their male counterparts in the first year accounting module and also in the auditing module, which, interestingly, is undertaken via distance learning during the third year of the programme. There are implications arising for this enquiry. Female undergraduate students are relatively young with few family-related responsibilities and commitments. However, the majority of the females studying B655 are older, often with both work and family commitments and responsibilities. Here is an example of another variable requiring further research to remedy gaps in existing knowledge.

Regarding non-identification of gender in assessments, in B655 this applies to examination scripts but not to coursework. Whilst it might be argued that this study should, perhaps, endeavour to assess the relative merits and disadvantages of this practice, a reality is that current OU policy insists on name identification in coursework to aid the teaching and learning process. It may well be that such an assessment may require the input of tutors other than the author. Indeed Edmunds and West (2005) assert that is imperative that part-time tutors in distance learning are fully involved in reflective practice. This promotes the opportunity for consideration in a related but different study.

There is a literature concerning gender relating to management education, a heading under which OUBS courses fall. Sinclair (1995) asserts that university management courses have traditionally exhibited a strong masculine ethos. Tannen (1995 : 139)

argues that males and females grow up in different cultures and as a consequence are socialised differently. This generates differences in language and confidence. If management programmes are perceived as being masculine, females may feel less confident about effective participation (Spender and Sarah, 1980). In an Australian study, Ashenden *et al* (1995) assert that programmes that are perceived to be masculine can result in women's interests being marginalised or, indeed, ignored.

Whilst the IFS identified gender as an issue, the area, as evidenced from above, is complex. Rather than pursue the matter here, the inductive approach of this study suggests examining data generated from the inquiry and findings concluded from that data in relation to this study.

#### **2.1.1.2 Prior accounting study and knowledge**

As with gender, the prior research literature has displayed a range of contradictory findings. Studies, but again on undergraduate Accountancy degrees, by Baldwin and Howe (1982) and Doran *et al.* (1991) conclude that prior accounting knowledge, as reflected through prior study as opposed to knowledge gained through work experience, has no influence on academic achievement. In contrast, Bartlett *et al.* (1993), show a significantly positive relationship. They report that this impact could be connected with other factors such as work experience but undertake no further analysis. Other studies add to the uncertainty regarding the impact of prior accounting knowledge. Eskew and Farley (1988) establish better performance in early parts of a course, thereafter diminishing in impact, although still remaining positive. Baldwin and Howe (1982) and Doran *et al.* (1991) also report better performance in early parts of a course, followed by worse performance.

The conflicting findings in these studies may well be accounted for by differences under which the studies were carried out. The prior accounting knowledge in terms of content and length is not specified. The samples across the studies are drawn from a range of backgrounds. Eskew and Farley (1986), for example, study Accountancy within three different types of degrees, whilst Mutchler *et al.* (1987) draw their sample from three different Institutions. Mutchler *et al.* (*ibid*) go further to state categorically that they are unable say whether differences in grades reflect differences in student performance, or the grading effects of instructors/tutors. Baldwin and Howe (1982) assert that if prior accounting exposure, in terms of content and length of exposure, is not known or is subject to variations, there are difficulties in interpreting findings. In this study, few students have engaged in prior accounting studies. However, for those who have, it would be appropriate to establish the degree to which students felt advantaged by such prior studies or, indeed, disadvantaged.

### **2.1.1.3 Academic aptitude**

In a range of studies, evidence of academic aptitude is drawn from prior academic performance as reflected within university entrance qualifications, based usually on A-level or equivalent, performance. Based on that criterion, many studies agree in finding prior academic performance as being a determinant of future academic performance, among them Eckel and Johnson (1983), Hicks and Richardson (1984), Clark and Sweeney (1985), Ingram and Peterson (1987), Eskew and Farley (1988) and Ward *et al.* (1993). They all establish a positive relationship between academic aptitude based on A-level or equivalent, and performance in an accounting course. Despite this range of positive findings, other studies obtain conflicting results. Bartlett *et al.* (1993) find no significant association, a finding endorsed by Gist *et al.*

(1996). In contrast to those, Koh and Koh (1999) conclude that not only is prior academic performance an important determinant of academic performance but in their study, statistically it is the most important determinant. One reason for the differences in these particular findings may be the scope of each study; the first two are based on snapshots of one cohort of students, and the latter utilising a longitudinal study. In contrast the settings for those studies, B655 is open access with few having the more traditional and typical university entrance qualifications, although many students have General Certificates of Secondary Education (GCSE) from the UK. In that context, a study by Lane and Porch (2002) of students studying accounting within a Business Studies and Leisure degree concludes that performance at GCSE level is a significant factor in explaining performance on introductory accounting modules. There is, however, little other research evidence to support or contradict this.

28 of the 38 students in this study have GCSEs, six have GCEs and A Levels/A Level equivalents, and four have degrees (three of which are non-business/management related, with one including accounting in business studies course). In light of these sets of student profiles, and the prior research-based conflicting evidence, it may well be worth exploring the degree to which the Lane and Porch (2002) findings apply to this enquiry.

#### **2.1.1.4 Mathematics background**

Here, too, conflicts between findings emerge. Eskew and Farley (1988), Gul and Fong (1993), Ward *et al.* (1993), Wong and Chia (1996) and Koh and Koh (1999) all report a significant impact, whilst Bartlett *et al.* (1993) and Gist *et al.* (1996) report no significant effect. Koh and Koh (1999) conclude that so significant is the link

between mathematics background and academic performance in Accountancy, admissions policies in universities should reflect this by insisting upon a minimum Maths pre-requisite for admission. Their statistics, including multiple regression, reflect this very clearly. In their gender study, Mutchler *et al.* (1987) attribute the better performance of females to their higher quantitative aptitude than males. However, as with so many other aspects of studies relating to the six factors, conflicting results have emerged, with Tyson (1989) being a good example, concluding that gender, mathematics and academic performance are not related.

33 of the 38 participants in this study have maths at GCSE level, one student at A-level, and four have degrees, with no maths-related degrees. In light of these sets of student profiles, and the prior research-based conflicting evidence, it may well be worth exploring the degree to which the Lane and Porch (2002) findings apply to this enquiry. This may be particularly warranted in the context of B655 being open access, stipulating no pre-requisites, including none for mathematics.

#### **2.1.1.5 Previous working experience**

The literature in this area is particularly limited, in volume and in extent and scope. This is not surprising in that the vast majority of studies focus on undergraduate degrees. What does exist focuses on accounting performance in the year following an industrial placement in an accounting environment - comparing the performance of students who have gained practical accountancy experience with those who have not. Work experience providing practical, hands-on experience, has been found to impact positively on academic performance (Moses, 1987; Koh and Koh, 1999). In contrast, Knechel and Snowball (1987) find that a positive impact relates to only one subject within the Accountancy programme: Auditing, a subject that requires far less technical knowledge than financial or management accounting.



There appears to be little if any work of substance attempting to relate prior work experience with performance on accounting courses (such as B655) designed for working managers. Additionally, these managers may or may not be gaining on-going work experience as they both work and study. Further illumination and clarification may well be worth seeking via exploration in interviews with students.

#### **2.1.1.6 Age**

In the literature, only four studies of substance of age as a performance determinant exist, and once again, there are degrees of conflict. Dockweiler and Willis (1984) conclude that age plays a contributory role in the better performance of more mature students. In contrast, Bartlett *et al.* (1993) report that younger students perform better than more mature students. This is confirmed by Koh and Koh (1999). This may be because mature students face challenges younger students do not. For example, mature students may face challenges in returning to study after a period away from study, or indeed in that they have never engaged in post secondary school study at all. Additionally, some mature students may have greater financial commitments and/or domestic responsibilities, potentially distracting from study time. B655 working managers may well face just such challenges and the impacts should be identified and explored. That said, Lane and Porch (2002) find that older students perform better, but make no attempt to explain why.

In B655, the students, being working managers, are invariably much older than typical undergraduates, (the mean age being 29 years). In its own right, further exploration of any benefits or disadvantages associated with age is worth exploring.

### 2.1.2 Building on the six factor model in the IFS

The studies relating to the six factor model are of interest but of limited utility. They reveal contradictions and lack of conclusions. This may not be surprising given that they are derived from empirical analyses without the illumination and richness available potentially from, for example, interviews. For those reasons alone, further work is warranted. There are additional drivers, however. There may well be other factors, as indicated earlier, which impact upon academic performance. Such factors may impact positively or negatively on the study experience and may have consequences for the academic outcome of a course. Additionally, given that prior work is in the main limited to undergraduate 'face to face' degrees, further investigation in the contexts of distance learning and adult learners as working managers may prove fruitful. Indeed, prior to this thesis, I undertook some associated research in this area. Prompted by the contradictions between, gaps within and limitations of the six factor related prior research, I undertook an exploratory study of ninety four past B655 students. I collected data via a questionnaire. The data included student characteristics such as age, gender, length of work experience, prior academic attainment together with a range of other aspects. The IFS study is reflected in Table 2.2.

#### Issues arising from literature review

- Gender
- Age
- Nature and length of work experience
- Previous academic attainment
- Level of maths ability

#### Issues arising within tutorial activity and student evaluations of B655

- Nature and length of financially-related work experience
- Attendance at optional face-to-face sessions
- Prior (or lack of) experience of distance learning
- Family and domestic circumstances

<ul style="list-style-type: none"> <li>• Level of PC/spread-sheeting ability</li> <li>• Previous training in/exposure to financial skills/knowledge acquisition</li> <li>• Student (self-perceived) approaches to study</li> </ul>
<p>Data collected via questionnaire in IFS and analysed by SPSS</p> <ul style="list-style-type: none"> <li>• The number of A Level points attained, with a greater number having a positive impact upon academic performance</li> <li>• The number of face to face hours attended at tutorials and day-schools, with a greater number having a positive impact upon academic performance</li> <li>• Age in number of years with a higher age (older) impacting positively</li> <li>• The level of PC spread-sheeting skills, with little or no skills impacting adversely</li> <li>• Prior distance learning experience contributing a beneficial impact.</li> <li>• Based on Biggs' Study Process Questionnaire (SPQ), the application of an SPQ score reflecting a <i>deep approach</i> to the process of study linked with high academic performance.</li> </ul>

**Table 2.2 IFS Six factor model and additional aspects (Parkinson 2002)**

The characteristics create a profile of each student. Thereafter, the B655 academic score for each student is matched with their profile and analysed using SPSS. The analyses identify strong associations between a range of factors and course scores achieved by students. The associations are detailed in Table 2.3.

<ul style="list-style-type: none"> <li>• Each of the six factors in the six factor model appears, at first glance, to be significant, with Age – older - particularly impacting positively</li> <li>• The number of A Level points attained, with a greater number having a positive impact upon academic performance</li> <li>• The number of face to face hours attended at tutorials and day-schools, with a greater number having a positive impact upon academic performance</li> <li>• The level of PC spread-sheeting skills, with little or no skills impacting adversely</li> <li>• Prior distance learning experience contributing a beneficial impact.</li> </ul>
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**Table 2.3 Associations between factors/issues and B655 academic scores (Parkinson 2002)**

This exploratory study suggests that the additional factors are worthy of further investigation in the contexts referred to above. The factors may be viewed as environmental variables. Further investigation should go beyond statistical associations through appropriate forms of qualitative analyses, to provide necessary illumination and richness.

## **2.2 Relevant research relating to open and distance learning**

Much prior research, as indicated earlier, takes no account of the distance learning context. Distance learning differs from the traditional face to face environment in a number of ways. A key difference is reflected in the separation of teacher and learner in time or place, or in both time and place. The teaching and learning often involves mixed-media course materials, including print, radio and television broadcasts, DVDs, computer-based materials, on-line elements and telecommunications involving phone, email and online conferencing. Many course materials are pre-tested and validated before use. Communication between learners and tutors can be synchronous or asynchronous. There is often, as in the case of B655, the possibility of face-to-face meetings for day schools/tutorials, learner-learner interaction, and library study. A particular feature within the OU is the use of industrialised processes involving production of course materials well in advance, usually to a standardised format, with work tasks assigned to various staff within teams on course development and subsequent maintenance. As indicated and considered further below (through work by Kember and then Tinto) this context presents challenges to the learner, not least in the areas of social and academic integration and the context of group interactions balanced against individual attributes.

Predominant in the existing distance learning related literature are studies by Kember (1989) and Kember *et al* (1994) which continue to prompt much thought amongst educators. A consideration here will contribute potentially deeper insights. The works look at student characteristics at course entry point, and their influence upon student interaction with the course during their studies. Such interaction is affected by types and degrees of integration. These build upon work by Tinto (1975) who

presents integration aspects as essential to success in study, although the context is traditional campus-based rather than distance learning.

### 2.2.1 Tinto's integration model

Tinto (1975) argues that student characteristics directly influence student commitment to the educational institution, the goal of academic success, and thus to courses studied. Such commitment, it is argued, affects the student's degree of integration into the academic and social systems of the institution, and that such integration is essential to not only success but to reductions in attrition rates. Tinto's integration model (*ibid*) links student characteristics to the degree of integration, emphasising the role played by personal attributes, including prior academic achievement, ethnicity and gender. Prior academic achievement is linked to experiences at school, experiences taking place in a conventional face to face institution as opposed to distance learning. Tinto argues this has strong links with academic integration, an important element in students staying involved with studying. This might argue for inclusion of related aspects of Tinto's model to be researched into in this study. That said, the emphasis, reflected in Tinto's own revision of the model (1993), is on links with discontinuation of study rather than positive engagement.

Further challenges appear in subsequent criticisms made of the theory of the model. For example, Braxton and Lien (2004) assert that Tinto's hypothesised positive influence of poor academic integration on higher attrition rates lacks strong empirical support and is not valid. St. John *et al* (2004) criticize Tinto for ignoring financial variables in the model, arguing that economic forces affect institutional commitment, academic integration, and social integration. Rendon *et al* (2004) suggest that Tinto's

theory is less convincing when applied to minority groups, where individuals live two types of lives simultaneously. Such critiques of Tinto's work suggest that whilst the assertion of group interaction as being key, individual attributes hold relevance too. It may be argued that the coming together of students in formal dayschools/tutorials and/or informal self-help groups and/or on-line conferencing may provide a range of opportunities for student interaction. Accordingly, whilst an interesting area, it may well be investigation into the model in the context of this study might prove challenging and should be pursued elsewhere in a related but separate study. Tinto's work may be taken account of, as appropriate, in semi-structured interviews, providing prompts for any further probes, as and if required.

### **2.2.2 Kember's work on characteristics associated with student progress on distance learning courses**

Kember (1989) reformulated Tinto's model in the context of distance education. The work viewed social and academic integration of students as intervening variables between initial background characteristics and outcome measures of academic achievement and persistence. It did, however, in line with critics of Tinto's work, suggest that individual attributes are as important as group aspects. Kember constructed a model for distance education student progress. Subsequently, Kember et al (1994) presented a longitudinal study of student progress by adult distance learners, based on 1,087 students in three different learning institutions. The study reflected their existing characteristics upon entry to the course, and their interaction with the course during their studies. As with Tinto's ideas, the focus is upon links between student personal attributes and social and academic integration. The work shows that the personal traits of gender, age, prior education, occupation and salary all impact upon progress and attrition. In addition he suggests that successful

students integrate through both social and academic routes. Social integration means the extent to which students are able to integrate study with employment, social life, and family. Academic integration reflects the degree of affiliation between the student and the course. Kember's findings regarding prior characteristics and the two types of integration fit with the ethos of this study. The findings regarding social integration are of significance for this study in that the balances between employment, social life, and family may be significant for working managers working managers, often endeavouring to balance busy work and domestic lives. Additionally, the aspect of academic integration may be of relevance, in the context of B655 students feeling comfortable, or otherwise, with the required PC and Maths skills, and their empathy, or otherwise, with the financial orientation and nature of the course. The concerns of Kember are reflected in this study through the inclusion of appropriate questions within the semi-structured interviews in an attempt to establish whether or not students themselves feel these are matters of concern and if so, how they impact upon their study experience. One area of potential significance but not attended to in the interviews and thus analysis of data is that of socio-economic status. This is discussed next.

### **2.2.3 Socio-economic aspects**

The research by Tinto and Kember makes reference to socio-economic circumstances. It states that socio-economic status is a key determinant of a student's educational achievement, and has been prominent in a large number of published education reports over a long period of time (e.g. Coleman, 1966; Karmel, 1973: DCSF, 2009). As a consequence the relationship between socio-economic disadvantage and learning outcomes has been accepted by many educators. On the surface, it would thus appear that this aspect might be appropriately considered

within this study. A number of aspects, however, present challenges to this logic. Much of the work has focused on primary and secondary education with little relating to distance education, particularly in the context of developed economies (as in the case of the OU in the United Kingdom). A standard measure of low socio-economic status is *number of free school lunches*, clearly inappropriate for the context of this study. Other measures, again not relevant to this study, include parental education levels, neighbourhood poverty, parental occupational status, and family income (Lara-Cinisomo *et al*, 2004).

In the United Kingdom, the government has linked educational achievement and socio-economic issues within the concept of social exclusion. The concept of social exclusion goes beyond income poverty. It reflects the consequences arising from a combination of problems such as unemployment, discrimination, poor skills, low incomes, poor housing, high crime, bad health and family breakdown, generating a vicious cycle. Social exclusion is thus a broader notion of disadvantage than simply low income levels.

In UK tertiary education, the Government has introduced fees counterbalanced by loans and grants for those eligible. The Times Higher Education Supplement (4 September 2009) reported that students are happy to invest in their future. Despite student debt soaring, most undergraduates feel confident that they are making a sound financial investment in their future career by taking degrees, with 64 per cent feeling confident that they will see a return on their investment. Interesting though this is, the OUBS context differs with the very vast majority of students in employment. Additionally, in the context of B655, again, the very vast majority are sponsored by employers. This alone indicates that socio-economic context may not



be of direct relevance to B655 students.

#### **2.2.4 Studies in the footsteps of Kember**

A number of studies welcome Kember's work as a major contribution to the analysis of student progress relating to adult distance learners (e.g. Roberts, 1995; Moore and Kearsley, 1996). Woodley *et al.* (2001) replicate Kember's 1995 study, investigating 427 students across a range of management courses in the UK OUBS. They conclude that the broad direction of Kember's findings is welcome in identifying factors that should receive further qualitative consideration in the context of their contributions to student achievement through the study experience. They add the caveat, however, that the empirical foundations of Kember's work are questionable in that the courses examined have no common strand of theme, and that the nature of subject may well impact on the findings of particular research.

Fung and Carr (2000) build upon the notion of elements of the study experience being of particular significance, identifying and analysing the expectations of tutorials by distance learning students. Clear links are made between higher attendance and successful course outcomes. They note that this may be connected to increased attendance reflecting a commitment by a student to the course, and motivation, be it intrinsic or extrinsic (as evidenced by, e.g. sponsorship by an employer). Additionally, they suggest that distance learning students may prefer conventional 'lecture' style tuition rather than student-orientated and open learning approaches. Accordingly, this may accentuate the significance of attendance at face to face sessions within distance learning sessions, where students may feel direct contact with a tutor may add to their learning experience.

Taplin and Jegede (2001) analyse responses of 712 high and low achieving distance learning students at the Open University of Hong Kong. They suggest there are differences between males and females regarding organisation of time, use of study materials, confidence about studies, and the role of independent versus collaborative study. As a consequence they call for different treatment for male and female students in order to maximise the achievement of both gender groups, with such treatment taking account of work and domestic backgrounds, and knowledge of such backgrounds when marking assessments. Interestingly, this conflicts with findings referred to earlier which recommended anonymous student profiles when assessing work.

There is further evidence that within distance-learning courses, course design and support systems impact significantly upon the study experience of the female learner. Simpson (2002a) in an Open University context identifies organisational and operational support as a generic for all distance learners, subsequently identifying (2002b: 34-40) how the contextual circumstances of female distance learners impact upon their study experience. In further research, Simpson (2003) notes how the female experience can impact negatively upon motivation and potentially retention. In the context of combining accounting and distance learning, a study by de Lange *et al.* (1997) of 107 open learning students at one institution in Australia related personal characteristics with academic achievement. They note that, in general males out perform females, and prior educational attainment has little, if any, impact. They note their results are inconclusive and express intent to continue with further research, particularly in the arena of gender-related issues, and especially those concerned with confidence on the part of the learner, and family and domestic

circumstances. They suggest that females, given family commitments, organise themselves in different ways, but often at a cost which lessens the study experience.

A number of other studies focus on the aspect of support within the curriculum and its significance for female distance learners. Kirkup and Primmer (1990) identify a need felt by many females for connection with others during the course of their studies. They feel this need so strongly that, despite family-related challenges, they overcome a variety of practical difficulties to be able to spend time with others and share learning, both in formal and informal settings. Hipp (1997) suggests that the support system for female distance learners should take full account of their domestic and personal circumstances in addition to regular, personal contact with other learners. Hipp's study also reveals that females find greater satisfaction with their study experience where regular contact exists with both faculty and co-learners. The faculty aspect promotes self-confidence where the situation is in a 'return to learning' context.

### **2.2.5 Building on these studies**

Reflecting upon the above, a salient point is that none of the research relates to vocational *Accounting for Managers* type courses for older, working managers. . In the first B655 face to face tutorial, an Activity *Hopes and Fears* identifies what concerns the students have. Consistently they cite domestic challenges, fears about returning to learning, and worries about maths and/or PC skills. The B655 students as adult learners have characteristics and profiles which differ from undergraduates. Accordingly this study should extend into the arena of literature focusing on adult learners.

### 2.3 Theories of adult learning

Brookfield (1995) asserts that a number of adult learning theories have developed over the years, and that any research considerations involving adult learning demands an understanding of such theories as they make contributions to the development of curriculum, and thus the learning environment. He suggests that the theories each have a degree of validity and that the universal panacea of one theory is unattainable, indeed inappropriate. Taken together these areas of research constitute an espoused theory of adult learning that informs many adult educators in practising their craft.

Brookfield (*ibid*) suggests that theories concerning adult learning centre on four major research areas. *Self-directed learning* is an umbrella heading used to cover a wealth of research showing that adult students do not live in an ideal world, having to balance competing demands on their time and energy and take account of wider social and political forces. Brookfield claims researchers have traditionally struggled to understand how factors such as the adult's previous experiences, and the learning environment, affect the learning process. Brookfield further claims that adult educators also need to know more about students' views of the quality of the learning experience. The context of B655 echoes these views. Through a process of *critical reflection* - be it implicit, explicit or both, adult learners seek to make sense or meaning of their experiences. Brookfield observes the benefits of, illustratively, studies of widely varying groups of adult learners such as single parents and those suffering ill health resulting in individual transformation. This may strike a chord with the vocational nature of B655. In this context, the notion of *experiential learning* sees adult learners – in contrast to children, as finding meaning through the location of studies within experiences at work. This is particularly applicable to

B655. The idea of *learning to learn* focuses on preferred patterns of learning. Brookfield contends that this idea suffers for lack of a commonly agreed on definition, functioning more as an umbrella heading for a variety of approaches to adult learning. That said some brief review of patterns of learning may be appropriate to provide a context for any refinement to the research questions. This could be of relevance to this study but the field is broad and deep and may be appropriate for a separate study.

### **2.3.1 Approaches to learning**

The IFS noted some association between approaches to learning and academic performance, although not as significant a relationship as other factors. A study by Lyall and McNamara (2000) concluded that successful distance learners were predisposed to adopt a deep learning approach, although the constraints of family and/or work commitments witnessed them being pragmatic, using both deep and surface approaches depending upon their circumstances at the time. Such approaches have been the subject of a range of literature.

Biggs (1987) demonstrates that student learning approaches may be crucial in determining the quality of student learning as reflected by factors such as academic performance and satisfaction with the educational experience. He suggests that the main focus of the paradigm is on the influence that the learning environment has on the approach to learning adopted by the student, which, in turn, affects the quality of the learning outcome. The two common learning approaches employed by students are described as *deep* and *surface* learning (characterised in original research by Marton and Saljo, 1976). Biggs (ibid) identified, at least for a short period of time, a

third approach, the achieving approach. Characteristics of each approach are summarised in table 2.4.

<i><b>Approach</b></i>	<i><b>Suggested significance</b></i>
<b>Deep</b>	A deep approach is characterised by an intention by students to understand, and is reflected in a focus on underlying arguments, the identification, organisation and classification of new ideas and previous knowledge (Marton and Saljo, 1976; Biggs, 1987; Ramsden, 1992). Ramsden argues a deep approach is more likely to result in quality learning outcomes such as a good understanding of the discipline as well as developing higher order skills such as the ability to think critically and process data at a high level of generality.
<b>Surface</b>	This approach is characterised by an intention to complete task requirements. The focus is on the facts rather than arguments, memorisation of information and procedures, and an unreflective acceptance of material. Consequently, a surface approach usually results in the mere accumulation of unrelated bits of information for reproduction in assessment processes (Biggs, 1987).
<b>Achieving</b>	Biggs (1987) suggested that another approach was prevalent enough amongst students to warrant its identification as a third category, termed the achieving approach. This was based on competition and ego-enhancement, with students seeking to achieve the highest grade possible, whether or not the study material is engaging or even interesting. He suggests that students can search for meaning in a highly organised way (deep plus achieving approaches) or rote learn in a highly organised way (surface plus achieving approaches), but cannot rote learn and search for meaning simultaneously.

**Table 2.4** *Summation of the characteristics of approaches to learning as defined by Biggs (1987)*

A study by Booth *et al.* (1999) compared the approaches of accounting undergraduates at two Australian universities with those of Australian arts, education and science students. They found that accounting students had relatively higher surface learning approaches and lower deep learning approaches. Additionally, higher surface scores were found to be associated with less successful academic performance. They concluded that if students' approaches are to be changed, assessment items should be consistently and explicitly designed to both encourage and reward a deep approach to learning. Lucas (2001) in a phenomenographic study concluded that the environmental contexts of an accounting course are major influences on the approaches adopted. Marriott (2002) undertook a longitudinal study

of 410 students enrolled on a three year accounting degree at two universities, concluding that the variables of gender, nationality and institutional environments impacted upon learning approaches, and the approaches changed over the three years. Byrne *et al.* (2001) found a highly positive association between the deep approach and high scores on the first year of an accountancy degree in Ireland, interestingly more so for females than males, although they assigned this to poor reporting by some male students.

Reflecting upon the above, a salient point is that none of the research related to vocational *Accounting for Managers* type courses, such as B655. Accordingly, the existing research findings endorse the view that the findings of an initial empirical analysis is only the start of an examination, with a more qualitative investigation of a range of variables required to provide context and inform analyses and conclusions.

Ramsden (1992) sees learning not viewed in isolation, but in relation to a number of factors such as curriculum, assessment, modes of teaching, students' prior experiences and perceptions. The aim is to create an environment that encourages students to employ a deep approach to learning, leading to higher quality learning. Biggs (1993) sees this the need to create a *learning environment*.

The notion of a learning environment impacting upon student outcomes fits well with the examination in this study of student views of the environment created by a combination of the curriculum design and student profiles. That said, the area of learning approaches is extensive and is worthy of a dissertation in its own right. Additionally, not all the related research has produced outputs which concur with each other. Kember *et al.* (1994) point out that learning approaches are not stable

psychological traits. Whilst students will normally have a predisposition to either deep or surface approaches in general, the preferred approach can be, however, modified by the teaching context or learning environment. Indeed, it is reasonably common for students to use a deep approach in one course and a surface approach in another, with the choice and application of approach influenced partly by the student's personality, motivation and study methods and partly by contextual factors such as the learning task, the attitudes and enthusiasms of the lecturer and the forms of assessment.

The foregoing considerations indicate that research into the generics of approaches to learning has been carried out extensively, whilst research into the approaches of distance learners has produced conflicting and variable findings. Accordingly, it may be that substantial associated research in the field of distance learning may well be appropriate, but in this study there would not be space or time. Consequently, I decided to exclude from this study considerations of the approaches to learning paradigm, concentrating, rather, on the associated aspects of the learning environments in relation to adult learning and distance learning, and gender aspects.

#### **2.4 Learning theories in the context of open and distance learning**

Perhaps the most significant researcher into this area is Rowntree, who has studied the implications of learning theories for the design of distance learning courses for in excess of thirty years. His views start from the assumption that the logical starting point when beginning to design a course for distance learning must be to ask what is known about the intended or intending learners – especially with regard to their needs, expectations and circumstances. He asserts that if course designers do not already know about their learners then they need to find out, otherwise they cannot



be sure that the system being developed will match very closely with what learners need for satisfying and successful learning. Accordingly, some time and space should be devoted here to the ideas his work centres on, ideas associated with finding out about learners.

#### **2.4.1 Finding out about learners**

Rowntree (1992) suggest there are four themes to be concentrated on as educators seek to find out about learners. The first theme is concerned with establishing why we need to know about our learners. Rowntree (*ibid*) asserts that education has long been producer-centred, with educators and institutions developing the courses they want to develop. Being producer-centred assumes that there will always be a demand for courses. It based entry on qualifications and ability to pay fees. This requires educators in needing to know little about students, the assumption being that most cope reasonably well, and if some do not then the problem is the student's. As indicated in Chapter 1, the world has changed and is changing at an ever faster pace. Learning for life is now a reality. That reality is accompanied by the education market becoming segmented and diversified. Providers are facing new demands from a greater variety of learners, more mature ones in particular, with new sponsors such as the learners' employers, particularly in the context of vocational education. Rowntree (*ibid*) suggests that it would be appropriate to view learners and educators as partners in learning and consequently there is a need to know more about learners; in essence to become learner-centred. Building upon Rowntree's ideas, studies by Morgan (1993) and Evans (1994) use interviews of hundreds of distance learners to gain illuminating insights to inform the design of distance learning courses. These

insights are in the main connected with the characteristics of the learning environments of the students, not least the work and domestic circumstances.

The second theme focuses on what educators should learn about their students. Morgan (*ibid*) and Evans (*ibid*) concur that what might need to be known is almost anything of potential use in helping learners enjoy a productive and satisfying learning experience. Appropriate and relevant investigations should be a given. The third theme is concerned with how educators find out about learners. Rowntree (*ibid*) suggests that this may be achieved through a variety of means. These could include questionnaires to and/or meeting with prospective learners, and, significantly for this study, listening to learners and reflecting on any previous experiences of learners. Rowntree (*ibid*) has a checklist of knowledge aspects he deems significant in this context. This checklist is detailed in the left hand column of Table 2.5, accompanied by, in the right hand column, factors and issues relevant to this study.

<i>Aspect</i>	<b>Factors and issues potentially relevant to this study</b>
<b>Demographic factors</b>	<ul style="list-style-type: none"> <li>• Age</li> <li>• Disabilities</li> <li>• Race</li> <li>• Sex</li> <li>• Occupations</li> </ul>
<b>Motivation</b>	<ul style="list-style-type: none"> <li>• Drivers for learning</li> <li>• What are their hopes and fears, likes and dislikes?</li> <li>• Relationship between/relevance of the course of study to work/employment</li> </ul>
<b>Learning factors</b>	<ul style="list-style-type: none"> <li>• Experience of distance learning</li> <li>• Attitudes to distance learning</li> </ul>
<b>Subject background</b>	<ul style="list-style-type: none"> <li>• Feelings about the subject of the course</li> <li>• Existing related knowledge/skills already possessed</li> <li>• Experiences already in existence relevant to the subject</li> </ul>
<b>Resource factors</b>	<ul style="list-style-type: none"> <li>• Where, when and how will the study experience take place</li> <li>• Source of funding</li> <li>• Availability of time</li> </ul>

**Table 2.5** *Matters educators need to find about regarding distance learners linked to this study (from Rowntree, 1992)*

Two particular aspects of demographics – disabilities and race – should be investigated not least because of the OU's stated and much publicised philosophy of equality and being *open to all*. A review of each student registration form, available online, shows no student identifying any disability falling under the categories recognised by the OU. Thus, for this inquiry the matter of disability would not appear to arise. It may be, of course, that in other studies it would do so and should be taking full account of. The aspect of race raises an interesting challenge. The OU collects data concerning the ethnicity of students but does so via a separate (non-registration) form, derived from voluntary anonymous responses for which anonymity is guaranteed. The OU ethics guidelines highlight the challenges associated with questions regarding ethnicity for the purposes of research. There is much research in the area of ethnicity and academic performance in the contexts of primary, secondary and tertiary education, but the latter tends to be related to campus based education rather than distance learning. The aspect of race raises such potentially major areas for investigation that I decided that for the purposes of this study, it should be set aside for pragmatic reasons.

## **2.5 Chapter 2 in review: implications of the literature review for the focus of this study**

The drivers for this enquiry and the associated research questions have, I contend, been justified by the literature review. Prior research in the area of determinants on accounting course performance is limited. It focuses on the six factor model and, additional associated factors as detailed in tables 2.2 and 2.3. Despite this the scope is limited. Within such limited scope, the analyses are primarily quantitative and inconclusive and/or contradictory. Furthermore the six factor model and the

additional factors focus on conventional face-to-face teaching not distance learning courses. Where prior research on distance learning does exist it is inconclusive and/or contradictory. My own earlier study extending the six factor model indicates there are additional factors which may be significant. The existing mainstream research in the area reveals little concern is given to adult learning theories or curriculum design, particularly as espoused by Rowntree. Much greater definitional clarity is needed concerning the experiences of students, particularly regarding student goals, domestic and work circumstances, and student views regarding course design and structure, especially within distance learning courses, meriting further investigation. Accordingly, the research questions articulated in Table 1.4 in chapter 1 are validated and confirmed. Consequently, the content of this chapter feeds into the methodology considerations in chapter 3. It endorses the view that the findings of an initial empirical analysis is only the start of an examination, with a more qualitative investigation of a range of variables required to provide greater depth, richness and illumination. These variables, based upon the foregoing considerations, should include the original six factors but expanded to ten through the inclusion of level of PC skills; nature of work relating to any financial responsibilities; attendance at face to face sessions; and drivers/motivation for studying. These should be considered in the contexts of those elements of B655 – the course components, viewed by students as being significant. These may include, on a non-exclusive list basis, coursework/exam, AV materials, PC materials, face to face sessions, and design of text materials. The research design should find ways of eliciting from students their views on which elements are important, and seek to establish any associations between the characteristics of students and those elements. Furthermore, the content in this chapter not only feeds into the research design considerations in

chapter 3, but helps in understanding and interpreting the data collected and analysed in chapter 4.

## Chapter 3

### **Methodology considerations: establishing a design for the study**

#### **Introduction**

This chapter sets the template for the collection and analysis of data to investigate and respond to the research questions specified in chapter 1, and confirmed at the end of Chapter 2. In so doing, it examines the issues concerning the overall thrust of approach to this enquiry and the selection of an appropriate methodology and design. Quantitative, qualitative and mixed methods are contrasted in the context of implications for data collection analysis, and the capacity to illuminate the focus of the research. In particular the challenges of collecting relevant data and its subsequent analysis are considered. Such considerations include an exploration of issues associated with collection of data through various forms of interview and the formulation of a focused semi-structured interview protocol. Additional considerations are made concerning the analysis of interview data collected, particularly through content analysis and repertory grid analysis. Matters relating to validity, reliability and generalisation are reviewed. Thereafter, issues concerned with setting an ethical stance are considered. It concludes with a summation of the significance of these examinations and considerations for the selection of methodological approach and methods, and sets out a template for data collection and analysis.

### **3.1 Initial considerations: quantitative, qualitative, mixed approaches**

Established literature (e.g. Cohen *et al.*, 2000; Robson, 2002; Bryman and Bell, 2007) contend there are three core approaches to data collection and analysis. The *quantitative* (or *empirical* or *positivist*) reflects an empirical-analytic paradigm, assuming that matters in research can be quantified and measured. The *qualitative* (or *anti-positivist*) approach is concerned with the nature of meaning and the social world from which meaning is derived. The *mixed method* approach seeks to combine the strengths of the other two. Each has its own characteristics and associated strengths and limitations. These must be considered in setting an appropriate design for this research study.

#### **3.1.1 A quantitative approach**

Within the positivist tradition, a study adopts a primarily quantitative approach, often based on testing a theory composed of variables, usually measured with numbers, and analysed with statistical procedures, in order to determine whether the predictive generalisations of the theory hold true. It has strengths and suitability for certain kinds of study, not least to facilitate replication of previous studies. Much of the six factor related research cited in chapter 2 reflects these characteristics. However, as suggested in chapter 2, the weakness of the six factor model research stems from limitations associated with the quantitative approach. Robson (2002:21) offers a criticism concerning such limitations:

*...essentially positivists look for the existence of a constant relationship between events....this can be relatively straightforward when dealing with the natural world....however, when people are the focus of the study, particularly when taking*

*place in a social real world context, constant conjunction is so rare as to be virtually non-existent.*

This critique has resonance in the context of this enquiry. The quantitative approach generates information that is useful in that observations about measures of association between academic performance and a number of factors may be made. Such information does not, however, produce information about *why* or *how* those certain characteristics influence academic outcomes: about what influenced the study experience. Researchers need to listen to what people have to say, and should explore the ideas and concerns which the subjects themselves come up with. This may result in a different pattern emerging, prompting observations to be made in a different, perhaps, more meaningful way through collecting and analysing data of a more qualitative nature.

### **3.1.2 A qualitative approach**

The qualitative approach is based on building a complex, holistic picture, formed primarily with words, reporting detailed views of informants, often conducted in or derived from a natural setting, requiring the researcher to seek the meaning of social action and associated phenomena through *interpretivism*. It begins with an intention to explore a particular area, collects data, often through observations and interviews, and generates ideas from these data largely through inductive reasoning. The most central characteristic of qualitative, as opposed to quantitative, research is its emphasis on the perspective of the individual studied. Accordingly, a qualitative element, whilst not discounting quantification, seeks to elicit that what is important



to individuals and their interpretations of the environments in which they study. This is what this study is seeking to do with the participants.

### **3.1.3 A mixed approach**

Some research methodology literature attends to considerations of what might well be termed the *qualitative-quantitative debate and divide*, citing the relative strengths and limitations and assessing the suitability of each for particular types of research. At first reading, the debate appears to suggest that the two approaches are irreconcilable. However, to jump to the conclusion that one or the other approach is superior to the other trivialises what is a far more complex area than a dichotomous choice can settle. Established research literature (e.g. Jankowicz, 2000; Saunders *et al.* 2007; Bryman and Bell, 2007) see great advantage in combining elements of both approaches. Miles and Huberman (1994) see particular merit in the use of qualitative-based methods to shed further light on findings from an initial quantitative enquiry. They, along with Jankowicz (2000) also see some form of quantification within the analysis of qualitative data as being useful, particularly when seeking to identify frequently recurring themes. Of relevance will be the understanding, views and perceptions of subjects in the study, in this case of B655 the students who have studied the course. Their views may well be elicited through interviews and an analysis of prevalent themes within such views. More is said about applying such quantification in section 3.4.

### 3.2 The issues of reliability and validity

The issues concerning the degree to which that data will be reliable and valid have significance for the issue of generalisation. Reliability is concerned with the question of whether the results of a study are repeatable, and is linked to the idea of replicability. Its nature is the achievement of consistency of results obtained when using measures, the acid test being that it should be possible for another researcher to duplicate results or produce comparable evidence. Accordingly, the strength of the quantitative approach lies in its reliability. There are, however, threats to reliability.

Robson (2002) asserts there are four threats to reliability, and particularly so for qualitative research. These are: subject or participant error, subject or participant bias, observer/interviewer error, and observer/interviewer bias.

He suggests that it is easier to take precautions against these threats in quantitative research than in qualitative, but efforts to do so should still be applied. In this study I endeavour to avoid such threats through clear articulation of the aims and objectives, and applying questions in interviews which have focus and context. The use of a number of pilot interviews serves to avoid common errors in interviews.

Validity is concerned with the integrity of the conclusions that are generated from a piece of research. Its focus is whether findings are really about what they appear to be about, and the degree to which the relationship between two variables is a *causal relationship*. The strength of qualitative research lies in closeness to the truth: integrity leading to validity. Robson (2002) identifies two main dimensions of validity: *internal* and *external* validity. Internal validity is concerned with the question of whether a conclusion that incorporates a causal relationship between two

or more variables has substance. External validity is concerned with the question of whether or not the results of a study can be generalised beyond the specific research context. For quantitative studies, the ability to rely on internal and external validity is important in the pursuit of being able to generalise beyond the population of a piece of research. There has, however, been much debate concerning reliability and validity within qualitative research.

Quantitative research proponents argue that qualitative research has shortcomings in both contexts of reliability and validity, by the very nature of the methods adopted. This argument may have some logic given the differing views that may exist of any one social situation. In addition the reliability of the informant's information can be another source of concern, as can be their personality and the relationship with the researcher. Robson (2002) suggests that the qualitative researcher's response is to set out a well constructed design relevant to a particular study and to maintain meticulous records of all sources of information acquired and used, generating an audit trail for a chain of evidence. A further criticism is that of qualitative research findings being usually unable to be generalised. Such criticisms have led to some writers on research suggesting that qualitative research should be judged and evaluated according to different criteria. Guba and Lincoln (1994) suggest that the quality of qualitative study be judged on the basis of trustworthiness, this being made up of credibility, transferability, dependability, and confirmability. In this context they suggest that the aim of trustworthiness in a qualitative inquiry is to support the argument that the inquiry's findings are worth paying attention to. This differs from experimental approaches which attempt to show validity, soundness, and significance. Credibility is concerned with evaluating whether or not the research findings represent a credible interpretation of the data drawn from the participants'

original data. This study will endeavour to do so. Transferability is the degree to which the findings of this inquiry can apply or transfer beyond the bounds of the project. The small scale of the project may prohibit this, but will provide stepping stones for future studies. Dependability reflects the degree of robustness and rigour reflected within the processes of data collection, data analysis, and theory generation. Confirmability is concerned with the support provided by the data of the study's findings.

Accordingly, it is important to ensure that within this study these criteria are taken account of in the design and implementation of the enquiry.

### **3.3 Interviewing as a form of qualitative research**

Robson (2002) focuses on three types of interviewing: *structured*, *semi-structured*, and *unstructured*. Each type is linked to the extent of the depth of response sought, with structured interviews eliciting data of a confirming and/or descriptive nature and limited value, moving incrementally through semi-structured and unstructured interviews to providing interviewees with opportunities to offer greater insights into their experiences. Cohen *et al.*, (2000: 273), build on this by grouping interviews into four kinds: the *structured interview*, the *unstructured interview*, the *non-directive interview*, and the *focused interview*, with the latter two being variants of the unstructured interview.

The nature of this study, in light of the themes identified in chapter 2 and the reality of students having studied B655, suggests strongly that a semi-structured interview in the focused format is appropriate.

### 3.3.1 The semi-structured, focused interview formant

Cohen *et al.* (2000: 290) suggest the focused interview variant of the semi-structured interview is appropriate where themes have already been identified. Within this B655 study, a number of themes – categories – have already been established through the literature review in chapter 2.

Robson (2002) provides a comprehensive guide to the formulation of an interview, once themes have been set, suggesting an interview sequence comprising the phases of *Introduction*, *Warm-up*, *Main body of interview*, *Cool-off*, and *Closure*. Robson also suggests an interview schedule, a protocol, comprising introductory comments (perhaps from a verbatim script), list of themes and initial key questions, sets of associated prompts, and closing comments. Jankowicz (2000: 243) suggests commencing the interview with *an explicit statement of the purpose of the interview*. Thereafter the main themes should be expressed, initially in a particular order, but with flexibility built in to facilitate a degree of re-ordering in light of how a particular interview progresses. The flexibility should also enable the interviewer to prompt the interviewee to develop responses, probing further to explore answers. Throughout the interview, from design to implementation, the interviewer should endeavour to avoid bias, as indicated earlier. All research literature consulted for this study stress the desirability of piloting the interview schedule with an appropriate sample of the participants.

The broad themes identified via the literature review provide a framework of themes within an interview schedule. In that context, an interview schedule appropriate for this enquiry is shown in Table 3.1. Note it contains some references to matters related to ethics; ethical issues are considered in section 3.5 later in this chapter.

With an interview protocol in place to collect data, consideration is now given to analysis of such data.

<b><i>Theme (with Coding)</i></b>	<b><i>Questions for Themes</i></b>
<b>A - Introduction to interview</b>	<ul style="list-style-type: none"> <li>• Welcome</li> <li>• Outline drivers for and nature of interview.</li> <li>• Invite participant to ask for clarification/voice any concerns</li> </ul>
<b>B – Warm up</b>	<ul style="list-style-type: none"> <li>• Ask about life in general, holidays etc., easing participant into the interview.</li> </ul>
<b>C – Students views of ‘successful outcome’</b>	<ul style="list-style-type: none"> <li>• What do students perceive as ‘successful outcome’ of the course?</li> <li>• Ask in what way(s) was it successful; prompt/probe in areas of academic score, utility of B655 knowledge/skills at work.</li> </ul>
<b>D – Probing about influences on ‘successful outcome’ in the context of their study experience</b>	<ul style="list-style-type: none"> <li>• Ask what interviewee feels about the B655 study experience, asking them to rank it on a scale of 1-7, with 7 representing ‘a positive experience’.</li> <li>• Following ranking, ask how they have arrived at the ranking; prompt/probe into their responses as appropriate to identify the course components which were important elements requiring successful engagement with to achieve a positive study experience. Ask students to rank the influences, again on the 1-7 scale, in contributing towards a positive experience.</li> <li>• Prompts may make reference to course components such as AV materials, PC materials, face to face sessions, coursework, exam, design of text materials’ others, as appropriate.</li> </ul>
<b>E – What factors are perceived as providing advantage to them as they study?</b>	<ul style="list-style-type: none"> <li>• Seek to identify how the student’s characteristics/profile helps in engaging successfully with the identified important course components.</li> <li>• The characteristics may be associated with aspects such as: number of A Level points attained, number of <i>face to face</i> hours attended at tutorials and day-schools, age, level of PC spread-sheeting skills, prior distance learning experience, nature and length of work experience, level of maths ability, nature and length of financially-related work experience, family and domestic circumstances, previous training in/exposure to financial skills/knowledge acquisition, gender-related issues.</li> <li>• Ask students to rank the factors, again on the 1-7 scale, in providing advantage to them as they study.</li> </ul>
<b>F – What factors do students perceive as</b>	<ul style="list-style-type: none"> <li>• Seek to identify how the student’s characteristics/profile hinders in engaging successfully with the identified important course components.</li> </ul>

<p><b>disadvantage them as they study?</b></p>	<ul style="list-style-type: none"> <li>• The characteristics may be associated with aspects such as: number of A Level points attained, number of <i>face to face</i> hours attended at tutorials and day-schools, age, level of PC spread-sheeting skills, prior distance learning experience, nature and length of work experience, level of maths ability, nature and length of financially-related work experience, family and domestic circumstances, previous training in/exposure to financial skills/knowledge acquisition, gender-related issues.</li> <li>• Ask students to rank the factors, again on the 1-7 scale, in <b>providing disadvantage to them as they study.</b></li> </ul>
<p><b>G – What general links are there between such student perceptions with prior research findings, including the findings of the author’s IFS?</b></p>	<ul style="list-style-type: none"> <li>• Build upon questions/themes E and F by prompting and probing further in relation to aspects revealed by interviewee in response to questions/themes E and F. (Included here would be links with approaches to studying.)</li> <li>• <i>Note: this may not be required if initial prompting has generated appropriate development.</i></li> <li>• Ask students to rank the impact of the outcomes of issues/factors identified in Sections E and F upon the influences upon a positive study experience is identified in Section D. In light of the intention to subsequently use repertory grid analysis, following the technique’s protocol, the ranking of 1-7 to be reversed, with 1 indicating a particular issue/factor had very little negative impact on engaging with a particular element, and 7 indicating a very significant negative impact.</li> </ul>
<p><b>H – What lessons emerge with regard to improving the student experience in studying the course in question and improve performance?</b></p>	<ul style="list-style-type: none"> <li>• Ask if they could change aspects of the course design to improve the B655 student study experience what areas would they concentrate on and why.</li> <li>• Ask what aspects should be retained to maintain positive experience.</li> <li>• <i>Note: Be prepared to prompt/probe based on any other aspects identified earlier in interview</i></li> </ul>
<p><b>I – What might the design of a template for bringing about consequential improvements to the course look like?</b></p>	<ul style="list-style-type: none"> <li>• Ask interviewee to identify and rank in descending order the three course characteristics to be retained and three aspects/matters/issues/factors, existing or not, which should be attended to and improved or incorporated into the course design and thus the student study experience.</li> <li>• <i>Note: this may not be necessary if appropriate indications have been given earlier in the interview.</i></li> </ul>
<p><b>J – Cooling off</b></p>	<ul style="list-style-type: none"> <li>• Ask interviewee if they are content/happy/satisfied with the conduct of the interview and the nature of the questions.</li> <li>• Ask if there is anything else they wish to say.</li> </ul>

	<ul style="list-style-type: none"> <li>• <i>Note: In the case of issues and tensions arising, take the opportunity to defuse any challenging situations which emerge.</i></li> </ul>
<b>K – Closure</b>	<ul style="list-style-type: none"> <li>• Thank interviewee for their time and co-operation.</li> <li>• Reassure them regarding confidentiality and privacy.</li> <li>• Confirm they will receive a copy of the results of the enquiry, with a copy of the dissertation if they so require</li> </ul>

**Table 3.1** *Interview schedule for this enquiry*

Contextually it is important to recognise that the interviewer - myself- is male and this might have an impact on the data collected, not least if females were to be wary of myself as a male interviewer. I anticipated that any challenges might be lessened by the relationship I already had with the interviewees, lessened further by my own personality which tends towards being personable and affable, drawing often upon family life experiences.

### **3.4 Analysing qualitative data**

Much prior research in the areas associated with this study is based on quantitative data collected and analysed, based on meanings derived from numbers. To proceed further, the data collected through interviews requires analysis and the extraction of meaning. Robson (2002) contends that this is particularly challenging because there is no accepted set of conventions for analysis corresponding to those that exist for quantitative data. Bryman and Bell (2007) concur, indicating that these problems are very challenging because unlike the analysis of quantitative data, there are few well established rules for the analysis of qualitative data.

The lack of clear ground rules has resulted in a number of associated specific challenges to the researcher. Hussey and Hussey (1997: 256) cite Miles and Huberman (1994), asserting that the researcher is faced with three groups of



challenges: reducing the data, structuring the data, and detextualising the data, The challenges and the range of differing contexts of qualitative studies result in the evolution of a number of methods of analysing qualitative data.

#### **3.4.1 Methods of analysing qualitative data**

Hussey and Hussey (1997:249) state there are two main types of methods: *quantifying* and *non-quantifying*. The latter involves an immersion into data usually without pre-conceptions and is endorsed strongly by ardent phenomenologists wishing to witness the emergence of findings via a more naturalistic stance. As is the case in this study, there are, however, pre-determined themes and thus a quantifying approach is more appropriate. Hussey and Hussey (1997:251) state within the quantifying approach there are two typologies: *informal* and *formal*. The former observes and examines patterns and repetitions linked to the nature of the study, but not necessarily pre-conceived ones. The latter is more structured and is often based on pre-conceived themes, as is the case in this study. Both require the analysis is of meanings expressed through words.

#### **3.4.2 Analysing the meaning of words**

Miles and Huberman (1994) suggest the meaning of words be captured through a process of:

- Understanding the characteristics of the language used
- Discovering and categorising regularities
- Recognising relationships, identifying key themes or patterns from them for further exploration and/or thought and reflection
- Reflection and reaching conclusions.

Hussey and Hussey (1997) suggest that the process of capturing meaning is broadly concerned with two main formal methods: *content analysis* and *repertory grid technique*. In this study the interview schedule contains a range of pre-determined themes derived from chapter 1, facilitating the asking of themed questions. The responses may well themselves contain additional themes. Robson (2002) is of the view that the some form of content analysis is appropriate in such circumstances, at least initially. Here, the content and context of interviews are analysed, through themes being identified and the researcher focusing on the way a theme is treated or presented by a respondent together with the frequency of its occurrence. The analysis is then linked to external variables: the characteristics/circumstances of respondents. The counting of occurrences of themes may need to be complemented in other ways. Robson (2002) suggests employing appropriate quotes from interviews as illustrations.

Jankowicz (2000) and Cohen *et al.* (2000) suggest that instead of being seen as an alternative to content analysis as described above, the repertory grid approach may well prove useful in generating greater illumination. Its philosophy involves the identification of beliefs or *constructs* people have about certain aspects or *elements* of an experience which influence the formulation of their constructs. Saunders *et al.* (2007) concur, suggesting such knowledge can be useful in helping the researcher to formulate a deeper understanding of the core content analysis Accordingly, both approaches are considered in greater detail.

### **3.4.3 Content analysis**

Bryman and Bell (2007) suggest in applying content analysis, the researcher should seek to quantify content in terms of pre-determined categories and in a systematic

and replicable manner. Content analysis, in the context of this study, facilitates a logical and transparent way of identifying themes revealed within interviews, themes linked to the research questions.

Miles and Huberman (1994) suggest that in applying content analysis, the categorisation and unitising elements should be seen as an opportunity for data reduction, identifying key themes only, through summarising and simplifying data, treating unusual and infrequent data as being, in statistical terms, outliers, of interest but not of great significance. They also suggest using diagrammatic data displays to help organise and summarise data and related categorisations. Saunders *et al.* (2007) note that it is not unusual to quantify some qualitative data within content analysis. Such quantification may be used to count the frequency of certain themes, words, ideas and so on. Any frequencies may then be shown using a table or diagram. This occurs in chapter 4.

Bryman and Bell (2007) contend that interviews should, preferably, be recorded using a tape recorder and then transcribed. They stress that it compensates for the limitations of human memory, allows a more thorough examination of interviewees' answers, and provides evidence to others who may be interested in a particular study. They also note it can be time consuming, generating volumes of paper-based transcripts.

The analysis of words through identification of themes produces what Saunders *et al.* (2007) refer to as *descriptive accounts*, which can be represented in table and chart forms through a count of frequency of themes. They go further suggesting that the analysis of words should be based on categorisation and classification based on

*typologies*. Typologies in this study represent characteristics of students in relation to their experiences of their study of B655. A tension exists, however, in the identification and analysis of typologies. On the one hand, classifications and categories are discrete and independent of each other. On the other hand, there usually exist multidimensional or multi-factorial classifications. An emphasis on the former may be criticised for representing nothing more than counts of frequency of occurrences of themes. To compensate, richness should be sought. Cohen *et al.* (2000) suggest quoting words used by interviewees. Whilst that adds richness it does not formally make connections across the views of interviewees and has implications for issues of reliability and validity. Cohen *et al.* (*ibid*) suggest some form of repertory grid analysis - there is more than one form - may well contribute towards reliability and validity. This provides an opportunity to satisfy the demands presented by the issues of reliability and validity aired earlier in this chapter.

#### **3.4.4 Content analysis through repertory grid analysis**

Repertory grid analysis has its foundations in the work of Kelly (1955), based on the idea that individuals have beliefs, constructs, through which they evaluate the phenomena which constitute their world in general or a particular scenario. This involves identifying as elements, stimulus objects that individuals evaluate in formulating constructs. It is then possible to establish relationships between constructs and elements both in general terms and, more significantly, in groupings, leading to the establishment of profiles of typologies.

The original work by Kelly focused on the hypothesis that there is no objective absolute truth and events are only meaningful in relation to the ways that are construed by individuals. The instrument was designed to capture the dimensions and

structure of personal meaning, seeking to describe the ways in which people give meaning to their experiences in their own terms. He developed a grid which showed overall and specific groupings of relationships between influences and experiences. In its original form, repertory grid analysis allows the researcher to address the respondent's assumptions and personal understanding of the issues directly, hearing opinions in the respondents' own voice. This allows the respondent to evaluate phenomena that constitute the world/scenario under investigation. It involves identifying contrast; good/bad, significant/not so significant or others as appropriate. In this case, useful contrasts would be helped/did not help, or as a variant, hinder/did not hinder.

Derivatives of the original model have been used since 1955 in a variety of interview settings by a range of researchers, for example, Gammack and Stephens (1994), Burr and Butt (2004), and Stewart and Stewart (1982). Cohen *et al.* (2000: 338) note that Kelly's original has been subsequently adapted and amended by other researchers and that its flexibility and adaptability is proving of great utility to educational researchers. Jankowicz (2000) notes that the technique has been widely used in general in the personnel and training field, and quite specifically in the area of training courses development, fitting with the broad context of this study.

Cohen *et al.* (*ibid*) state that more recent developments have witnessed researchers providing constructs to interviewees, such constructs being derived from themes obtained through other analyses, as an alternative to elicited constructs. This could be seen as being such a major departure from Kelly's original model as to potentially invalidate the use of 'provided' as opposed to 'elicited' constructs. In this context, Cohen *et al.* (2000: 339) suggest that a review of a substantial body of research

suggests a qualified positive view of providing pre-determined constructs to subjects. As an example, they cite Ryle (1975) who comments on Kelly's original model being concerned with the notion of the personal views of the individual in an essentially isolated context. Ryle observes that this view ignores developmental and social processes, and that persons resemble each other in their construction of events, validating the notion of provided themes. Cohen *et al (ibid)* go further in illustrating support for provided themes, citing Adams-Webber (1970): *[While] it seems clear in the light of research that individuals prefer to use their own elicited constructs rather than provided dimensions to describe themselves and others...the results of several studies suggest that normal subjects, at least, exhibit the same degree of differentiation in using carefully selected supplied lists of adjectives as when they explain their own elicited constructs.* Cohen *et al (ibid)* provide a caution, summarising a caveat from Bannister and Mair (1968). They support the use of supplied constructs in principle but are fearful that the researcher may assume that the polar adjectives or phrases provided are the verbal equivalents of the dimensions in which the researcher is interested. There is substance in this concern. In this study, however, the supplied constructs have been elicited from interviewees themselves, through rankings and assessments obtained during the interviews.

In this study, the application of repertory grid analysis provides an opportunity for an individual to identify important *elements* in a part of their world – B655, and link those elements to their constructs about how they interact successfully or otherwise. The linkages may be executed both on an individual basis and in sets, which may subsequently be assessed in some order of degree of association and significance to the individual. The process allows, if required, two constructs to be grouped as similar, and then as different to a third, or more, constructs. Accordingly, based on

the themes identified in chapter 2 and the potential for the interviews to reveal common groupings, it is appropriate, subject to such common groupings emerging from the initial interview analyses, to apply aspects of repertory grid analysis to the interview data based on themes identified in the core content analysis. The aspects used are based on the techniques of ranking and laddering. When used in analysis later, the mechanics of these techniques will be explained at that point. The combination of initial content analysis and repertory grid analysis allow, as described earlier, for the formulation of groupings, leading to the establishment of profiles of typologies. Such typologies provide insight into those collections of student characteristics which help the study experience and those which hinder.

### **3.5 Taking account of ethics**

Ethical considerations are always important but perhaps particularly so within educational contexts where the education of those being studied may be affected by the research. In all research but in education in particular, ethical considerations should be the norm. If not, there may be a de-stabilising impact upon the data obtained thus invalidating the conclusions.

Perhaps the most direct question which must be asked when considering ethics is 'Who might be harmed by the research and how?' It may be that a reaction to poorly conceived research designs which lack ethical considerations may result in the subjects invoking an influential degree of bias, be it consciously or sub-consciously. Bryman and Bell (2007) reflect these concerns by associating them with two major sets of issues:

- How researchers should treat the people and on and with whom they conduct research, and
- The type and nature of activities researchers engage in within relations with research participants.

A summary of reading of Bryman and Bell (ibid) has resulted in the list of ethics related issues (quite literally in the form of questions) which any researcher but particularly one in an educational context should consider. These are detailed in Table 3.2.

• What harm might research subjects come to?
• Might anyone else be harmed by the research?
• What reassurance about potential fear and harm can be given to subjects?
• Does the selected research area favour one interested party via pre-judgement?
• Post-event was the approach to matters ethical appropriate?

**Table 3.2** *Ethics related issues, derived from Bryman and Bell (2007)*

The issues within these questions have been addressed in a sincere effort to generate an ethical underpinning within the study. The associated aspects considered include matters detailed in Table 3.3.

• There are no participants under 16.
• No participants are classified as vulnerable people.
• No participants have learning difficulties.
• In essence the research should not cause stress or anxiety in any participants but this is raised in initial communications and monitored during interviews.
• No questions relating to issues of a personal/sensitive nature are asked.
• The research does not involve any covert observation of participants.
• No participant is paid.
• No interviews are conducted in any participant's home.
• The research is not connected with illegal activities.
• Post-event uses of data are to be limited to educational use only.
• This research does not bring the Open University or the Institute of Education into disrepute.

**Table 3.3** *Further ethics related matters taken account of*



A further aspect regarding this study is the role of the author as, effectively, an insider, a circumstance applying to this study. Given that I am both the author and the researcher, the issues and remedies detailed below are recognised and attended to:

- The students are, in essence, all past B655 students and, consequently, do not need to worry about progress in B655. This applies as a concern in general terms but could be compounded by I as author being both their support tutor and B655 Course Chair. The reality of the students having completed B655 eliminates initial concerns.
- Some students, however, continuing through the CIM or DIM or MBA may have concerns regarding the influence the author may have within OUBS. It is essential that fears are allayed. I, as author and researcher, must ensure that all dealings with participants are open and honest, with confidentiality assured. Such confidentiality applies to possible dissemination of work at conferences and in published papers. Participants should be updated regularly with feedback, and given assurances that access to the author as researcher is guaranteed.
- I as author have obtained permission from OUBS for this study, and it adheres to the OU's policy on ethics in research, particularly regarding the involvement of students in research.

The conduct of this study complies with the IOE and BERA Codes of Conduct.

### **3.6 Chapter 3 in review: significance and conclusions for the design of this study**

This chapter has examined the broad thrusts and specific methods available to draw

upon in establishing a research stance for this enquiry. The advantages and limitations of the quantitative methods have been confirmed, and the desirability of a qualitative approach identified. Ethical issues have been considered. Data is generated through the formulation and application of semi-structured interviews, using themes derived from the literature review. The protocol is applied within a set of pilot interviews. All interviews are taped and transcribed. Transcriptions are analysed via content analysis, and resultant frequencies and relationships presented in display form. Further consideration is undertaken using repertory grid analyses. Relationships are reviewed in the context of unusual relationships to establish the degree of veracity of conclusions drawn.

It is acknowledged that in an ideal study in an ideal world, when seeking to identify and analyse student perceptions of influences upon the student study experiences, it is not sufficient to record and analyse quantifiable profiles of participants. Account must be taken of perceptions and experiences of the participants. Accordingly, the design of this study should seek to elicit from students two sets of data. They are the establishment of characteristics/profiles of students and the identification of those elements of the course design believed by students to be significant in achieving a positive study experience and requiring successful engagement with. Thereafter the design seeks associations between the characteristics/profiles and elements in the contexts of the degree to which the study experience is impacted, be it positively or negatively, This progresses to the linking of associations expressed as groups of typologies through matching with B655 outcomes expressed in academic scores.

A template for the core design, implementation, analysis and dissemination of this study is displayed in Appendix B.



## Chapter 4

### Implementation, analyses and findings

#### **Introduction**

This chapter translates into reality the design study constructed and articulated in Chapter 3. It explains how the framework for the collection of qualitative data through focused semi-structured interviews was applied, and sets out the results generated from a range of analyses, providing a platform for discussion in chapter 5. It starts by confirming the numbers of participants, providing a deeper analysis of their characteristics, building on the snapshot provided in chapter 1 (section 1.4.3). It then describes how the collection of data was conducted, including lessons learnt from the pilot interviews. The data collected is identified and explored through an initial content analysis based on, first, a primarily quantitative thrust concerning occurrence of themes, and, second, a deeper exploration through illustrative quotes from the interviews, illuminating the occurrence of themes and adding richness. This provides sets of descriptives. They act as a base for explanatory analyses based upon aspects of repertory grid analysis, leading to the establishment of typologies. These findings provide a platform for discussion in chapter 5.

#### **4.1 Characteristics of the population**

The number of participants involved in this study is thirty eight, comprising twenty four males (63%) and fourteen females (37%). A detailed image is shown in Table. 4.1.

<i>Aspect</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
Number count and (%)	38 (100%)	24 (63%)	14 (37%)
Mean age	29	31	27
Highest age	41	41	32
Lowest age	25	25	23
Mean number of years work experience	8	9	7
Longest number of years work experience	22	22	13
Shortest number of years work experience	3	5	4
Number and % with prior formal financial training: <i>Note 1: Each of the four with prior formal financial training had been on 2-3 day Finance for Non-Financial Managers training</i>	4 (11%)	3 (8%)	1 (3%)
Number and % with prior accounting study <i>Note 2: The one student with prior accounting study had studied one course at introductory level in an undergraduate degree (see Note 4 below).</i>	1 (3%)	1 (3%)	0 (0%)
Number and % with GCSEs	38 (100%)	24 (63%)	14 (37%)
Mean number of GCSE points (A*=6 points, A = 5 points, B = 4 points, C = 3 points, D = 2 points, E=1 point, F=0 points)	30	24	28
Highest number of GCSE points	42	36	42
Lowest number of GCSE points	9	9	10
Number and % with A Levels	6 (16%)	4 (11%)	2 (5%)
Mean number of A level points (A = 5 points, B = 4 points, C = 3 points, D = 2 points, E=1 point, F=0 points)	5	5	4
Highest number of A level points	8	7	8
Lowest number of A level points	2	2	4
Number and % with non-relevant undergraduate degree <i>Note 3: The three students with non-relevant undergraduate degrees studied Engineering, Geography and English.</i>	3 (8%)	2 (5%)	1 (3%)
Number and % with relevant undergraduate degree <i>Note 4: The one student with a relevant degree had studied Computer Science</i>	1 (3%)	1 (3%)	0 (0%)
Number with GCSE maths	33 (87%)	21 (55%)	12 (32%)
Mean number of GCSE Maths ( Points: A*=6, A = 5, B = 4, C = 3, D = 2, E=1, F=0)	4	4	5
Highest number of GCSE maths points	5	5	5
Lowest number of GCSE maths points	0	1	0
Number and % with A Level maths and Grade achieved	1 (3%) Grade C	1 (3%) Grade C	0 (0%)

**Table 4.1** *A detailed profile of the 38 participants in this enquiry*

These thirty-eight students are constituents of the earlier six factor model research undertaken by myself and referred to in section 2.1.2 in chapter 2. In that research there were ninety-four students. These ninety four had been derived from an originally envisaged constituency of one hundred and twenty four. These one hundred and twenty four students had all been taught by myself in the London region over a period of four years, with two six month presentations in each year.

Accordingly, these represented B655 students in the London region. Of the one hundred and twenty four envisaged participants, one hundred and three (83.1% of 124) responded to an initial enquiry for help/assistance with the IFS project. All responses were positive. All one hundred and three were sent a survey form and a Biggs-based Study Process Questionnaire (SPQ). Ninety four responses (91.3% of 103, 75.8% of 124) were received back. The nine who did not participate did so for reasons expressed to the author as "...will try, but am very busy". No person refused outright to participate. No queries were received from any of the ninety four participants. Upon receipt of the completed survey and SPQ, no further contact took place apart from a courtesy email/postal letter thanking the participants for their efforts.

For this inquiry, it was envisaged initially that these ninety four would be interviewed. Of that ninety four, forty three were sponsored by the RAF and were atypical in that all fees were paid, time allowed during working hours to study, and the RAF requiring the students to acquire financial skills with no consideration of gaining the CIM, DIM or MBA.. For this reason I considered excluding them. In any event, the RAF indicated that these students would not be allowed to participate in the interviews, citing the Official Secrets Act. The remaining fifty-one number was reduced further to thirty eight by thirteen students who had declined to assist or had

'moved on'. The thirteen students in this category were not predominantly from one type of sub-group of students.

## **4.2 The pilot interviews**

As reflected in Chapter 3, a set of pilot interviews was used to:

- Ascertain how in general the process worked
- Confirm, or otherwise, the appropriateness of the themes and issues being explored, and
- Establish the order and appropriateness of the nature of the questions.

Consequently, the interview protocol detailed in Chapter 3 was utilised.

Arranging the pilots involved identifying, selecting and contacting a number of B655 students. For the pilot, a randomly selected set of eight students was selected, although based on five males and three females to reflect the overall gender division. Each potential pilot interviewee was contacted by email, the nature and purpose of the pilot outlined, and invited to participate. All agreed; agreement was followed up with a telephone call and arrangements were made.

Each student was visited at their workplace and asked to relate via the interview protocol (Table 3.1, chapter 3) in 20-30 minutes, their views and experiences of studying the course: what was good and what 'got in the way; how they felt they had performed; any links between what was good and 'not so' and perceived links with their performance. Interviews were taped. At the end I wrote down the key points each student had made, as a record and for future 'quick reference'. The findings generated themes which, fortunately, had clear links with the research questions. It also showed that individuals had both common and some disparate themes. This facilitated a more focused stance in questions to the other students to be generated.

The eight tapes were first listened to and then transcribed manually by myself to allow a firm grasp on the tone and nuances contained within the recordings. This transcription process took longer than anticipated and, on a part-time basis, took, alongside my full-time job, 21 days to complete, this being a lesson of experience for me as a researcher.

At the end of each interview, the student was asked to rank on an individual basis the significance of each of the factors/issues identified through the literature review in the context of their study experience. This was done using a scale of 1 to 7, with 1 representing of little significance and 7 of great significance. The mean ranking scores are shown in Table 4.2.

<i>Theme/Issue</i>	<i>Score</i> <i>1 = of little significance</i> <i>7 = of great significance</i>
Gender	2.8
Age	3.2
Nature and length of work experience	3.2
Previous academic attainment	3.2
Level of maths ability	4.4
Nature and length of financially-related work experience	4.8
Attendance at optional face-to-face sessions	6
Prior (or lack of) experience of distance learning	2
Family and domestic circumstances	6.2
Level of PC/spread-sheeting ability	6.4
Previous training in/exposure to financial skills/knowledge acquisition (reflecting prior accounting knowledge)	3.4
Student (self-perceived) approaches to study	2.2

**Table 4.2** *Mean ranking scores of themes/issues by pilot students (n = 8)*

More detailed analyses of the pilot interviews are shown in Tables 4.3, 4.4, and 4.5.



<i>Theme/issue</i>	<i>Number and % saying 'good' experience (n = 8)</i>			<i>Number and % saying 'not so good' experience (n = 8)</i>			<i>Number and % saying 'no view' of experience (n = 8)</i>		
	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
<b>Design of course materials</b>	7 87.5%	4 50%	3 37.5%	1 12.5%	1 12.5%				
<b>Content of face to face sessions</b>	7 87.5%						1 12.5%	1 12.5%	
<b>Nature of coursework</b>	6 75%	4 50%	2 25%	1 12.5%		1 12.5%	1 12.5%		
<b>Level of required maths ability</b>	7 87.5%	5 62.5%	2 25%				1 12.5%		1 12.5%
<b>Level of required PC abilities</b>	6 75%	4 50%	2 25%	2 25%	1 12.5%	1 12.5%			
<b>Impact upon domestic-related &amp; leisure time</b>	6 75%	5 62.5%	0	2 25%		2 25%			
<b>Need to draw upon financial experiences at work</b>	6 75%			2 25%		2 25%			

**Table 4.3** *Broad analysis of views expressed in pilot interviews: views of 'good', 'not so good', 'no view'*

<i>Theme</i>	<i>Number &amp; of pilot interviewees saying Theme-related issues are significant (n = 8)</i>			<i>Number &amp; of pilot interviewees saying Theme-related issues are not significant (n = 8)</i>		
	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
<b>Gender</b>	3 37.5%	1 12.5%	2 25%	5 62.5%	4 50%	1 12.5%
<b>Age</b>	2 25%	0	2 25%	6 75%	5 62.5%	1 12.5%
<b>Nature and length of work experience</b>	4 50%	2 25%	2 25%	4 50%	3 37.5%	1 12.5%
<b>Previous academic attainment</b>	3 37.5%	1 12.5%	2 25%	5 62.5%	4 50%	1 12.5%
<b>Level of maths ability</b>	4 50%	2 25%	2 25%	4 50%	3 37.5%	1 12.5%
<b>Nature and length of financially-related work experience</b>	3 37.5%	1 12.5%	3 37.5%	5 62.5%	4 50%	1 12.5%

<b>Attendance at optional face-to-face sessions</b>	6 75%	4 50%	2 25%	2 25%	1 12.5%	1 12.5%
<b>Prior (or lack of) experience of distance learning</b>	2 25%	1 12.5%	1 12.5%	6	4 50%	2 25%
<b>Family and domestic circumstances</b>	4 50%	2 25%	2 25%	4 50%	3 37.5%	1 12.5%
<b>Level of PC/spread-sheeting ability</b>	4 50%	2 25%	2 25%	4 50%	3 37.5%	1 12.5%
<b>Previous training in/exposure to financial skills/knowledge acquisition</b>	2 25%	1 12.5%	1 12.5%	6 75%	4 50%	2 25%
<b>Student (self-perceived) approaches to study</b>	2 25%	1 12.5%	1 12.5%	6 75%	4 50%	2 25%

**Table 4.4** *More detailed analysis of specific issues raised by students in pilot interviews (n = 8)*

<i>Driver/motivation for studying B655</i>	<i>Number of selections</i>
To complete Certificate in Management	6 (75%)
To improve financial skills in the workplace	2 (25%)
Because employer pays for course	0
Because student pays for course	0

**Table 4.5** *Analysis of student study motivations in pilot interviews (n = 8)*

The pilot confirmed that approaches to learning was not a significant item in the eyes of students and therefore remained an exclusion from the remaining interviews. The concerns about myself as a male interviewer interviewing both male and female students were not realised. As a consequence, I decided that the broad approach and interview schedule specified in chapter 3 should be retained.

### **4.3 Summary of approach regarding further interviews and subsequent analyses of interview data**

The remaining thirty interviews generated data on tape. The tapes were transcribed and, together with the eight pilots, generated thirty-eight documents in Microsoft Word format. An electronic search for content analysis was applied. This involved, within each individual transcript, a sequential order of indexing each paragraph

(based on the themes in the interview schedule in Table 4.2), labelling key words/phrases/terms relating to the themes, and then counting theme references within the whole interview. This indexing reflected each of the broad themes in Table 4.2. Accordingly, words sought included: gender, age, work experience, previous academic attainment, maths ability, financial work experience, day schools/tutorials, experience of distance learning, family/domestic circumstances, PC/spread sheet skills, financial training, prior accounting study, deep/surface learning. A further indexation theme was design improvements. This generated a thematic top down approach. This facilitated recognition of patterns. A bottom up count facilitated the identification of issues of significance based on frequency of occurrence, including suggestions by interviewees regarding possible improvements to the design of courses for OUBS to take account of. The themes and patterns discerned from the data are considered next in sub-sections, illustrated by selected relevant interview extracts.

#### **4.3.1 Drivers and motivations of participants for studying the course**

At the start of an interview, each individual participant was asked about their main drivers and motivations for studying B655, and asked to specify their main driver. The results are shown in Table 4.6.

<i>Driver/motivation for studying B655</i>	<i>Number of selections (n = 38)</i>
To complete Certificate in Management	30 (79%)
To improve financial skills in the workplace	6 (16%)
Because employer pays for course	1 (3%)
Because student pays for course	1 (3%)

**Table 4.6** *Analysis of student-specified main study motivations interviews (n =38) (%s rounded)*

This aspect revealed that whilst each individual participant may have a main driver, in reality the drivers were of a composite nature. One comment in particular reflected this:

*Well it was the last course for me on the Certificate so completing it was important. That said it was a convenient way of improving my financial skills and that was important too. And I guess the fact that my company was paying always added a bit when I was flagging. (M21)*

Another participant, studying B655 as a standalone and paying for himself stated:

*I needed skills for my business which you know I own and manage so getting a grip on the essentials of finance was really important and although I charged the cost to my business it was in fact me myself who was paying so it was important to ensure I got value for money. When I was struggling for time and being distracted by work I just kept going...the challenge of doing it and not wasting my money. (M12)*

The overall impression gained was that whatever the prime driver/motivation, participants as students did not lack motivation and felt the need, for whatever reason, to complete the course successfully.

#### **4.3.2 Summary of participants' perceptions of success**

Participants were asked what they meant by 'success' and 'being successful'. Initial discussions reflected a view of 'success' as being passing the course. Some viewed it in a relative sense, commenting that they were not happy with a mere pass (the pass mark being 40%) but getting a higher mark (specified in interviews as 50% plus or

60% plus). Others placed greater emphasis on being able to make sense of accounting finance terminology and techniques, acquiring financial skills. Others seemed highly driven and wanted both as symbols of success. These views are summarised in Table 4.7.

<i>Perception of 'success' on B655</i>	<i>Number of selections (N = 38)</i>
To pass at anything above 40%	8 (21%)
To pass at a 'good' level of 50% +	6 (16%)
To pass at a 'good' level of 60% +	5 (13%)
To benefit from the acquisition of financial skills	3 (8%)
To pass at anything above 40% and to benefit from the acquisition of financial skills	10 (26%)
To pass at above 50% and to benefit from the acquisition of financial skills	4 (11%)
To pass at above 60% and to benefit from the acquisition of financial skills	1 (3%)

**Table 4.7** *Perceptions of 'success' (n =38) (%s rounded)*

Relevant comments are:

- *...I would have been happy to just get a bare pass at forty. That said I did a lot better than I expected at 61%. That in itself is a success, a great success but the real success was that I learnt a great deal. I was able to go to the project meetings and not only understand the terms and take part in the technical discussions I was actually able to contribute to the actual decision making. That was way beyond my expectations...a great success. (M17)*
- *Well whatever I do I always try to do well. Of course passing at the forty mark would be ok but I've always seen any study even in-house training as an opportunity to test myself. I got seventy one and as a bonus I remembered enough to be able to improve my budget control at work. (M6)*
- *I enrolled to get to grips with the challenges of money matters in my business. I succeeded there without a doubt. I've improved beyond all recognition. Along with that I scored 68. The footballers would say over the moon. (M12)*

### 4.3.3 Summary of participants' perceptions of the quality of the course study experience

Participants were asked about their overall perceptions of the B655 experience, ranking first the overall view of the quality of the experience on a scale of 1 (very poor) to 7 (excellent), and, second, ranking the contribution of each theme to the experience, based on *good experience*, *not so good experience*, and *no view*. The results are shown, respectively, in Tables 4.8a) and 4.8b), and 4.9. Further interrogation and dissection within the male and female groupings occur within the repertory grid analyses later in this chapter. In Table 4.9, the themes/issues in the extreme left hand column reflect, first, the themes originally identified in Table 4.2, coupled with issues arising from an inductive process following the content analysis of the interviews.

<b>Ranking</b>	<b>1 Very poor</b>	<b>2 Poor</b>	<b>3 Could have been better</b>	<b>4 Adequate</b>	<b>5 Good</b>	<b>6 Very good</b>	<b>7 Excellent</b>
<b>Number N = 38</b>	0	0	2	2	22	8	4
<b>% Total 100%</b>	0%	0%	5.3%	5.3%	57.9%	21%	10.5%
<b>Breakdown by male</b>	0	0	1 2.6%	1 2.6%	14 36.8%	5 13.2%	3 7.9%
<b>Breakdown by female</b>	0	0	1 2.6%	1 2.6%	8 13.2%	3 7.9%	1 2.6%

Table 4.8a) *Overall rankings of assessments of the quality of the B655 study experience (n = 38)*

<b>Ranking</b>	<b>1 Very poor</b>	<b>2 Poor</b>	<b>3 Could have been better</b>	<b>4 Adequate</b>	<b>5 Good</b>	<b>6 Very good</b>	<b>7 Excellent</b>
<b>Breakdown by male N = 24</b>	0	0	1 4.2%	1 4.2%	14 58.3%	5 20.6%	3 12.5%
<b>Breakdown by female N= 14</b>	0	0	1 7.1%	1 7.1%	8 57.1%	3 21.4%	1 7.1%

**Table 4.8b) Overall rankings of assessments of the quality of the B655 study experience (n = 38)**

<b>Theme/issue</b>	<b>Number and % saying 'good' experience n =38</b>			<b>Number and % saying 'not so good' experience n =38</b>			<b>Number and % saying 'no view' of experience n =38</b>		
	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
<b>Design of course materials</b>	34 89%	24 63%	10 26%	2 5%	1 2.5%	1 2.5%	2 5%	1 2.5%	1 2.5%
<b>Content of face to face sessions</b>	28 74%	19 50%	9 24%	3 8%	2 5%	1 3%	7 18%	3 8%	4 11%
<b>Nature of coursework</b>	29 75%	22 58%	7 18%	7 18%	2 5%	5 13%	2 5%	0	2 5%
<b>Level of required maths ability</b>	22 58%	16 42%	6 16%	8 21%	2 5%	6 16%	8 21%	6 16%	2 5%
<b>Level of required PC abilities</b>	28 74%	20 52%	8 21%	8 21%	3 8%	5 13%	2 5%	1 2.5%	1 2.5%
<b>Impact upon domestic-related/leisure time</b>	25 66%	22 58%	3 8%	10 26%	2 5%	8 21%	3 8%	0	3 8%
<b>Need to draw upon financial experiences at work</b>	22 58%	16 42%	6 16%	10 26%	2 5%	6 16%	6 16%	4 11%	2 5%

**Table 4.9 Broad analysis of influences on the B655 experience (n = 38)**

The impression is that, on the surface, the very vast majority are more than satisfied with the overall quality of experience. Digging beneath the surface, however, identifies a number of phenomena and associated questions. There are issues derived from the analyses of data in Tables 4.8b) and 4.9. One is proportionately more

females have a perceived lower quality of B655 study experience than males. Another is proportionately more males report a better study experience. The data in Table 4.9 shows that in five of the seven identified influences, more females than males report a *not so good* experience. It would be appropriate to gain insights into the drivers for such assessments. The probing of the participants' interviews sheds light upon these and other phenomena.

#### **4.3.4 Summary of participants' perceptions of the significance of identified themes**

The participants' perceptions of the significance of the identified themes are shown in Table 4.10, providing a base for further exploration. In Table 4.10, the themes reflect those directly asked about or alluded to during the interview, as reflected in the interview protocol. The significant/not significant classifications are derived from specific rankings on a scale of 1-7 made by interviewees, with 1 being not significant and 7 being highly significant, or my assessment of the views expressed and ranked by myself on a scale of 1-7. Contextually, it is worth noting that these rankings/assessments, along with others obtained from Sections D, E and F of the interview schedule, feed into the measures of association referred to later in section 4.7 when the technique of repertory grid analysis is applied.



<i>Theme</i>	<i>Number of interviewees saying Theme-related issues are significant N = 38</i>			<i>Number of interviewees saying Theme-related issues are not significant n = 38</i>		
	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
<b>Gender</b>	20 52.6%	11 28.9%	9 23.7%	18 47.4%	13 34.2%	5 13.2%
<b>Age</b>	24 63.2%	14 38.7%	10 26.4%	14 38.7%	9 23.7%	4 10.5%
<b>Nature and length of work experience</b>	24 63.2%	15 39.5%	9 23.7%	14 38.7%	9 23.7%	5 13.2%
<b>Previous academic attainment</b>	16 42.1%	8 21.1%	8 21.1%	22 57.9%	16 42.1%	6 15.8%
<b>Level of maths ability</b>	24 63.2%	15 39.5%	9 23.7%	14 38.7%	9 23.7%	5 13.2%
<b>Nature and length of financially-related work experience</b>	26 68.4%	16 42.1%	10 26.4%	12 31.6%	8 21.1%	4 10.5%
<b>Attendance at optional face-to-face sessions</b>	24 63.2%	14 38.7%	10 26.4%	14 38.7%	10 26.4%	4 10.5%
<b>Prior (or lack of) experience of distance learning</b>	10 26.4%	1 2.6%	1 2.6%	28	4 10.5%	2 5.3%
<b>Family and domestic circumstances</b>	24 63.2%	12 31.6%	12 31.6%	14 38.7%	12 31.6%	2 5.3%
<b>Level of PC/spread-sheeting ability</b>	22 68.4%	12 31.6%	10 26.3%	16 42.1%	12 31.6%	4 10.5%
<b>Previous training in/exposure to financial skills/knowledge acquisition, includes prior accounting knowledge category</b>	10 26.4%	5 13.2%	5 13.2%	28 73.8%	19 50%	9 23.7%

**Table 4.10** *Analysis of participants; views of the significance of identified themes (n = 38)*

#### **4.4 Participants views on improving the curriculum design**

Participants were invited to suggest areas for improvement to B655 course curriculum design, identifying the main areas they felt needed improvement and also, if possible, suggesting how such improvements might be achieved.

Table 4.11 summarises the identified areas, listed in rank order based on the number of times mentioned.

The identification of the areas involved careful analysis of the section of interview concerned with potential improvements to the course design. This could potentially have been a challenging process with interviewees identifying large numbers of individual areas. This, fortunately, did not turn out to be the case. Suggestions were grouped by myself under eighteen broad classification areas. Thus the top down driver was thematic but the bottom up analyses inductive. The reference to Occurrences in Table 4.11 refers to the actual number of references made by interviewees and not to the number of interviewees who mentioned a particular theme.

<b><i>Identified area</i></b>	<b><i>Occurrences</i></b>
Placing explanations of mathematical calculations in the text	18
Providing videos of face to face sessions for those who are unable to attend	3
Making face to face sessions easier to attend through better scheduling	15
Providing more video to support text	11
Providing video tuition sessions to replace some text materials	3
Making TMA2 more work focussed	9
Being more realistic about the time required to study the course	6
Making greater use of diagrams and pictures in the course units	7
Remove the exam and replace with work-related course work	4
Alert employers to demands the course will place upon employees as students	2
Provide a separate PC skills development pack	2
Provide a separate maths skills pack	2
Having fewer TMAs	7
Taking account of demands on students of family responsibilities in scheduling face to face sessions	17
Making tutorials compulsory	7
Providing email access to tutors for support	13
Providing on-line peer support mechanisms	11
Providing better tutorial facilities	9

**Table 4.11** *Nature and occurrences of suggestions for improvements to the course design*

In making their suggestions, participants, following prompts, were asked about the

reasoning for the suggestions detailed in Table 4.11. Table 4.12 contains illustrations of a sample of suggestions made. These have been selected by myself. In so doing I applied a criterion of substance and justification for the suggestions made. These illustrative comments were reproduced in this text by myself and have been represented in fully punctuated English, with verbal interjections of *umms* and *ers* removed.

<b>Identified area</b>	<b>Selected illustrative comments</b>
<b>Placing explanations of mathematical calculations in the text: selected illustrative comments</b>	<ul style="list-style-type: none"> <li>• <i>I'm scared of numbers...almost number blind in a way and anything that explains, confirms even, would be really useful</i></li> <li>• <i>Figures are not usually an issue for me but sometimes it would help to be able to glance across, maybe to the margin, at the way some calculations have been done</i></li> <li>• <i>The ratios use accounting logic for relationships and although it explains it well in the text to see the words alongside the numbers could help by explaining and reinforcing</i></li> <li>• <i>Most of the calculations are ok but sometimes there are oddballs...like that flexible budgeting part. I worked through it for ages before I had a grip.</i></li> <li>• <i>Overhead absorption recovery...please spell it out that's if numbers can be spelled out</i></li> </ul>
<b>Providing videos of face to face sessions for those who are unable to attend</b>	<ul style="list-style-type: none"> <li>• <i>I wonder would it be possible to perhaps video the face to face sessions if we can't make it...that would be really useful for me as a working mum</i></li> <li>• <i>It would be good to have tutorial videos if you can't get there but also to go over again even if you did attend</i></li> </ul>
<b>Making face to face sessions easier to attend through better scheduling</b>	<ul style="list-style-type: none"> <li>• <i>It can be really difficult to attend what with work and stuff. Couldn't there be more sessions spread over a range of dates with more flexibility</i></li> <li>• <i>Tutorials are usually in the evenings... why not use Saturdays more or even Sundays</i></li> </ul>
<b>Proving more video to support text</b>	<ul style="list-style-type: none"> <li>• <i>The videos were really useful and a great support...the funny bits were really good... I reckon more would be really good...it brings it to life</i></li> <li>• <i>The a/v materials were generally ok but the ones which showed the calculations made things very clear and you should think about doing more of those...they really work</i></li> </ul>
<b>Providing video tuition sessions to replace some text materials</b>	<ul style="list-style-type: none"> <li>• <i>Well to be honest I never really thought there'd be as many words...I understand why you need to explain the method and logic but I think you could say it more quickly by telling us on</i></li> </ul>

video

**Making TMA2 more work focussed**

- *The first and last ones are really good cos they really relate to work and that's good. The second one does profit statements and balance sheets and ratios but on a made up company. Surely we could do ratios on our own company*
- *No probs with the TMAs apart from number two. Ok it makes sure we know the basics of the numbers but it might work better if it had real world work focus*
- *You could do the ratios of your own business*
- *TMA2 was fine from one angle but it was a commercial business and I work for (name removed – a charity) and those particular statements and ratios don't apply*

**Being more realistic about the time required to study the course**

- *It wasn't so much the time for the course as a whole but some of the unit timings were unrealistic. Unit 3 took a lot longer than Unit 4 and yet they were supposed to be the same in study time*
- *It took me a lot longer than it was supposed to, I thought I was slow but some others said the same*
- *I would have said something about time requirements but there again I think it was partly my own fault cos I got too interested in the materials and spent more and more time*

**Making greater use of diagrams and pictures in the course units**

- *In the main the units were well laid out but I really think more of those pen and ink drawings and diagrams you use would have improved things by both explaining things and breaking up the text*
- *Given that we're busy people don't always say it draw it*

**Remove the exam and replace with work-related course work**

- *I know it's an old chestnut but what do exams really do apart from show you have a good memory. It would be much better more effective to use coursework*
- *Exams bring so much stress and pressure. I think you can learn more by doing coursework and it's a better way of checking if you've really learnt anything*

**Inform/warn employers of the demands the course will place upon employees as students**

- *My boss had no comprehension of what I was doing and made no allowances whatsoever. I think if the OU could let employers know about the demands then we might get more support*

**Provide a separate PC skills development pack**

- *At present all the Pc stuff is in Unit 5 and in one way that's fine but I knew what to do anyway. Why not put it as a sort of access pack which people can use as and when required. You could even put it on-line.*

**Provide a separate maths skills pack**

- *I'd like a resource pack for maths so I could check things...even as simple as percentages...don't assume that we're all Einsteins*

<b>Having fewer TMA's</b>	<ul style="list-style-type: none"> <li>• <i>Doing three assignments in six months is just too many it makes the course too crowded</i></li> <li>• <i>It needs fewer TMA's...one small one at the start and a bigger work related one at the end would do</i></li> <li>• <i>We spent too much attention on the TMA's and that devalued some of the learning. Do less. One preferably but two at most.</i></li> </ul>
<b>Taking account of demands on students of family responsibilities in scheduling face to face sessions</b>	<ul style="list-style-type: none"> <li>• <i>I really don't know what the OU can do but it really can be difficult to balance all the demands at home with the course and work</i></li> <li>• <i>Why not schedule tutorials during the working day and then the family problems are minimised</i></li> <li>• <i>Lots of flexibility is required to allow mothers like me to take full advantage of the face to face sessions</i></li> </ul>
<b>Making tutorials compulsory</b>	<ul style="list-style-type: none"> <li>• <i>I don't know why they are optional add-ons as I think they are essential ...they bring the course alive</i></li> <li>• <i>I'm not sure if I would have survived without the tutorials and day schools</i></li> <li>• <i>They're absolutely essential as they add so much</i></li> </ul>
<b>Providing email access to tutors for support</b>	<ul style="list-style-type: none"> <li>• <i>We used the phone but direct email access would have been better and made life easier</i></li> <li>• <i>If email was official I could email when I want fitting in with my study patterns</i></li> </ul>
<b>Providing on-line peer support mechanisms</b>	<ul style="list-style-type: none"> <li>• <i>We needed some sort of conference facilities...to discuss and share and also just for support with each other</i></li> <li>• <i>Sharing on-line with other students would be great and would really help</i></li> </ul>
<b>Providing better tutorial facilities</b>	<ul style="list-style-type: none"> <li>• <i>The place was a dump</i></li> <li>• <i>It wasn't modern, not even data projectors for power point</i></li> <li>• <i>It was like being in an old Victorian school</i></li> </ul>

**Table 4.12** *Selected illustrative comments articulating the reasoning of participants in making suggestions for improvements to the course design*

#### **4.5 Interrogating descriptive accounts to create typologies**

The quantitative analyses previously undertaken in the IFS indicate that more technical matters such as maths ability, PC skills and prior academic attainments had great influence on outcomes when linked to course scores. As suggested in chapter 1, such analyses do not reveal student views regarding the aspects that are significant

within the study experience. Subsequent analyses thus far in this study suggest that students hold multi-faceted views regarding their experiences. Significant aspects include work experience, along with the challenges of studying whilst balancing a demanding set of work and family commitments. In both of these aspects, a dichotomy of views emerged between males and females. Overall, the findings reflect two common groupings of themes. One captures those elements of the curriculum design viewed by students as being significant within the study experience. The other captures perceptions held by students concerning the degree to which certain characteristics within their profiles are important in the degree of interaction with, and thus impact, upon the identified significant elements of the curriculum design. Participant perceptions represent *constructs*: beliefs by participants about aspects of their study experience environment and their interaction with elements of the course they hold to be significant. Analysing the interrelationships and interactions between the elements and the constructs provides insights into participants' views about what hinders or helps course experiences. Such insights enable groupings to be formed, based on typologies derived from indicative associations between sets of environmental characteristics of participants and their academic scores. This mode has its foundations in the *repertory grid analysis* research method, explained in chapter 3.

#### **4.5.1 Applying repertory grid analysis**

This further analysis is applied to the content analysis utilised in analysing the semi-structured interviews. That first analysis establishes meanings and interpretations of individual and collective perspectives of respondent's constructs, capturing and articulating the ways in which they think about the matters being explored in this

study. Constructs are used in articulating meaning through expression as *contrasts*. This is suited to this study in that a number of elements – important parts of the course experience, and constructs – views about influences of circumstances, characteristics and events on the functioning of the elements, have already been identified in the content analysis. The challenge is in identifying and assessing the perceived degrees of influence of the circumstances, characteristics and events on the elements.

The derivative application to be used requires the construction of a grid detailing identified elements and constructs relating to an articulated contextual focus, the rating of constructs upon elements, and the identification of any groupings of common sets of ratings to produce typologies. The constituent components of the grid relevant to this study are shown in the template in Figure 4.1.

The influence and impact of constructs upon elements are articulated through the expression of the constructs on a spectrum. For example, in relation to, say, attendance at day schools when viewed as a significant element within the curriculum design, it may be that some participants view their domestic circumstances as hindering to a great degree their ability to attend; other participants may view their domestic circumstances as not hindering attendance at all. It is then possible to assess the perceived relative measure of association between constructs and elements. Illustratively, it may be that some participants view lack of PC skills as impacting adversely on their overall study experience. If those same participants viewed their domestic issues as having a negative impact on attendance at face to face sessions, such participants may view themselves as being particularly

challenged by the environment in which they function as they undertake their course of study. The challenge lays in identifying significant elements and key constructs.

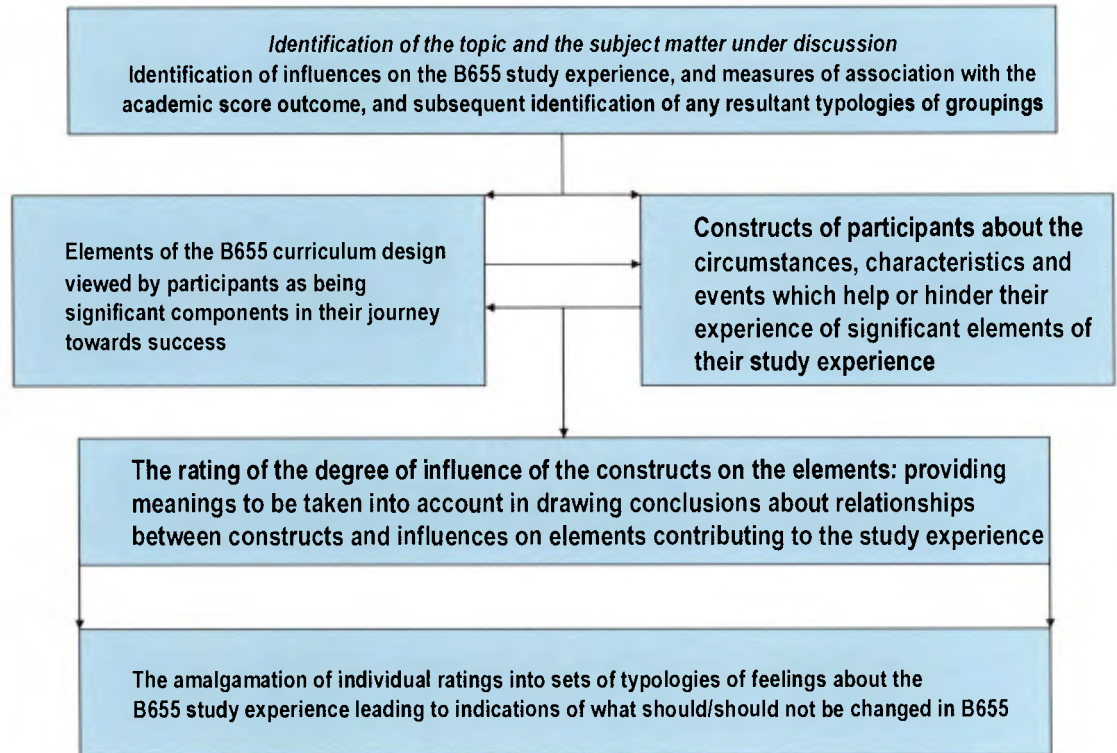


Figure 4.1 *The grid template*

#### 4.6 Identifying significant elements and key constructs

Tables 4.13, 4.14 and 4.15 detail, for reference, summarised negative, positive and neutral aspects based on rankings by students identified in chapter 4. These provide a context for the formulation of those elements students feel are significant elements of the course and key constructs articulating what helps or hinders their interaction with the key elements. They do not form a base for derivation of elements and constructs but, rather, provide a backdrop.



<i>Theme/issue</i>	<i>Number and % saying 'no view' of experience</i>		
	<i>Total n = 38</i>	<i>Male n = 24</i>	<i>Female n = 14</i>
<b>Level of required maths ability</b>	8 - 21%	6 - 16%	2 - 5%
<b>Content of face to face sessions</b>	7 - 18%	3 - 8%	4 - 11%
<b>Need to draw upon financial experiences at work</b>	6 - 16%	4 - 11%	2 - 5%
<b>Impact upon domestic-related/leisure time</b>	3 - 8%	0	3 - 8%
<b>Design of course materials</b>	2 - 5%	1 - 2.5%	1 - 2.5%
<b>Nature of coursework</b>	2 - 5%	0	2 - 5%
<b>Level of required PC abilities</b>	2 - 5%	1 - 2.5%	1 - 2.5%

**Table 4.13** *Themes/issues identified as neutral by interviewees, shown in rank order*

<i>Theme/issue</i>	<i>Number and % saying 'good' experience</i>		
	<i>Total n = 38</i>	<i>Male n = 24</i>	<i>Female n = 14</i>
<b>Design of course materials</b>	34 - 89%	24 - 63%	10 - 26%
<b>Nature of coursework</b>	29 - 75%	22 - 58%	7 - 18%
<b>Content of face to face sessions</b>	28 - 74%	19 - 50%	8 - 21%
<b>Level of required PC abilities</b>	28 - 74%	20 - 52%	8 - 21%
<b>Impact upon domestic-related/leisure time</b>	25 - 66%	22 - 58%	3 - 8%
<b>Level of required maths ability</b>	22 - 58%	16 - 42%	6 - 16%
<b>Need to draw upon financial experiences at work</b>	22 - 58%	16 - 42%	6 - 16%

**Table 4.14** *Themes/issues identified as positive by interviewees, shown in rank order*

<i>Theme/issue</i>	<i>Number and % saying 'not so good' experience</i>		
	<i>Total n = 38</i>	<i>Male n = 24</i>	<i>Female n = 14</i>
<b>Need to draw upon financial experiences at work</b>	10 - 26%	2 - 5%	8 - 21%
<b>Impact upon domestic-related/leisure time</b>	10 - 26%	2 - 5%	8 - 21%
<b>Level of required PC abilities</b>	8 - 21%	3 - 8%	5 - 13%
<b>Level of required maths ability</b>	8 - 21%	2 - 5%	6 - 16%
<b>Nature of coursework</b>	7 - 18%	2 - 5%	5 - 13%
<b>Content of face to face sessions</b>	3 - 8%	2 - 5%	1 - 3%
<b>Design of course materials</b>	2 - 5%	1 - 2.5%	1 - 2.5%

**Table 4.15** *Themes/issues identified by as negative by interviewees, shown in rank order*

Table 3.1 in chapter 3 sets out an interview schedule for this study. The broad thrust, excluding the area of *approaches to learning*, was confirmed by the pilot interviews. In accordance with section D of the interview schedule, students were asked about what they perceived as being influences on a successful study experience. Following a ranking on 1-7 (7 in this case representing a highly positive course experience), they were asked to identify course components which were important elements contributing to a positive experience. Typical elements cited included, perhaps, not surprisingly, the exam, along with the coursework assignments, the usefulness of the day-schools/tutorials, and the length of time taken/needed to engage with the study of the course materials. In Sections E and F of the interview schedule, they were then asked to identify, respectively, the factors they perceive as providing advantage and disadvantage. These invariably included prior academic study and achievement, attendance at day-schools/tutorials, level of PC spread-sheeting skills, prior distance learning experience, nature and length of work experience, level of maths ability, nature and length of financially-related work experience, family and domestic circumstances, previous training in/exposure to financial skills/knowledge acquisition (which includes prior accounting knowledge). They were asked to rank the aspects identified in Sections D, E and F, again on the same scale of 1-7. Based on mean scores and selected on the basis of being above 3.5, two lists were derived. One shows the elements scoring above 3.5, of which there were 4. Added to this was the generic element of the overall study experience. These elements are detailed in no particular order of mean score of rank in Table 4.16. The other list shows the factors identified in Sections E and F of the interviews as providing advantage/disadvantage to them as they engaged with the course. These are shown in Table 4.17, again in no particular order of mean score of rank. The reason for not ordering in terms of mean score is because the significance of ranking via mean

scores lays not in individual elements and factors but in their inter-relationships within the grid analysis. Such inter-relationships were ranked during the interviews (in Section G) and are reflected in the analyses detailed shortly in Section 4.7.

<b><i>Elements perceived by participants to be key components of the curriculum design</i></b>
Time taken to study materials
Experience of optional face-to-face sessions
Assignments
Exam
Overall Study Experience

**Table 4.16** *Identified significant elements*

<b><i>Key constructs perceived by participants to be impacting on the significant elements of the course study experience, expressed on a spectrum</i></b>
Domestic circumstances did/did not hinder progression via... <i>specific elements</i>
Length of work experience helped a lot/ hindered a lot with... <i>specific elements</i>
Financially-related work experience existed and helped a lot/did not exist and hindered a lot with... <i>specific elements</i>
Maths Skills more than adequate to cope with demands/not adequate enough to cope with demands of... <i>specific elements</i>
PC Skills more than adequate to cope/less than adequate to cope with demands of... <i>specific elements</i>
Design of materials helped a lot/hindered a lot... <i>specific elements</i>
AV Materials helped a lot/did not help a lot with... <i>specific elements</i>
Motivation to pass exams helped a lot/did not help a lot with... <i>specific elements</i>
Motivation to gain financial skills helped a lot/did not help a lot with... <i>specific elements</i>

**Table 4.17** *Identified key constructs expressed as contrasts*

#### **4.6.1 Placing elements and constructs in the grid format**

The empty cells in Figure 4.2 may now be filled with ratings made by participants, reflecting participants' views of the degree of association between individual elements and the impact of their constructs on individual elements.

	<b>E1 Time taken to study materials</b>	<b>E2 Experience of optional face-to-face sessions</b>	<b>E3 Assignments</b>	<b>E4 Exam</b>	<b>E5 Overall Study Experience</b>	
<b>C1 Domestic circumstances did not hinder progression via...</b>						<b>C1 Domestic circumstances did hinder progression via...</b>
<b>C2 Length of work experience helped a lot with...</b>						<b>C2 Length of work experience hindered a lot with...</b>
<b>C3 Degree of financial nature of work helped a lot with...</b>						<b>C3 Degree of financial nature of work hindered a lot with...</b>
<b>C4 Maths Skills more than adequate to cope with demands of...</b>						<b>C4 Maths Skills less than adequate to cope with demands of...</b>
<b>C5 PC Skills more than adequate to cope with demands of...</b>						<b>C5 PC Skills less than adequate to cope with demands of...</b>
<b>C6 Design of materials helped a lot with...</b>						<b>C6 Design of materials hindered a lot with...</b>
<b>C7 AV Materials helped a lot with...</b>						<b>C7 AV Materials did not help a lot with...</b>
<b>C8 Motivation to pass exams helped a lot with...</b>						<b>C8 Motivation to pass exams did not help a lot with...</b>
<b>C9 Motivation to gain financial skills helped a lot with...</b>						<b>C9 Motivation to gain financial skills did not help a lot with...</b>

**Figure 4.2** *The grid of elements and constructs*

#### 4.7 Establishing measures of association between elements and constructs

In Section G of the interview students were asked to specifically link each factor with each element on the basis of the degree to which, given their own circumstances and attributes, a particular factor impacted upon successful engagement with each element. The ranking scale was again on 1-7 but the protocol of grid analysis endorses the use of 1 indicating a particular issue/factor has very little negative impact/very positive impact on engaging with a particular element, and 7 indicating a very significant negative impact/no positive impact at all. This provides a picture of the degree of association as perceived by each interviewee. The individual scores are entered on individual spreadsheets, totalled in summary form, divided through by, respectively, the number of male or female participants, and a mean obtained. The relativity of means when compared gives indications of patterns of associations. The overall means for the total of participants are grouped into male and female means, accompanied by the medians. They are presented on the basis of male and female groupings in light of indications within the initial content analysis of noticeable distinctions between those groupings. Figure 4.3 shows male means and Figure 4.4 the female means, followed by illustrative explanations of the calculations using source data.

<b>Males Scores</b>						<b>Median</b>
	<b>E1</b>	<b>E2</b>	<b>E3</b>	<b>E4</b>	<b>E5</b>	
<b>C1</b>	2.1	1.2	2.2	1.7	2.1	2
<b>C2</b>	2.7	2.6	1.8	5.4	2.5	3
<b>C3</b>	4.1	1.9	2.1	3.9	2.2	2
<b>C4</b>	1.2	2.1	1.9	1.8	2.1	2
<b>C5</b>	1.3	2.2	4.2	1.9	2	2
<b>C6</b>	1.5	2.1	1.9	2.2	1.8	2
<b>C7</b>	2.1	6	2.3	3.1	1.4	2
<b>C8</b>	4.2	5.4	3	2.1	2.4	3
<b>C9</b>	2.1	3.1	4.8	3.8	2.9	3

**Figure 4.3** Mean rating scores and medians: males

Females Scores						Median
	E1	E2	E3	E4	E5	
C1	4.3	5.3	5.1	5.3	6.1	5
C2	4.2	4.7	5.2	5.1	5.4	5
C3	5.6	5.3	5.9	5.8	6.1	6
C4	5.2	4.4	5.1	5.3	5.4	5
C5	5.3	4.1	5.6	4.2	5.4	5
C6	3.1	3.8	2.8	2.9	2.7	3
C7	1.8	3.1	2.2	2.8	2.3	2
C8	2.9	2.4	2.8	2.6	2.7	3
C9	2.7	2.9	2.7	5.8	2.9	3

**Figure 4.4** *Mean rating scores and medians: females*

**Key:**

**Elements** - E1: Time taken to study materials; E2: Experience of optional face-to-face sessions; E3: Assignments; E4: Exam; E5: Overall study experience

**Constructs** - C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills

To illustrate the calculations, the inter-relationships between each construct and each element are shown, respectively, males and females, in Appendix C.

A visual assessment based on a laddering perspective – identifying locations of higher and lower ratings, in this case the means - reveals a skewing between the male and female students. Additionally, the median scores for C1 – C5 show consistently more support for the propositions from male students with median scores of two and three compared with medians of five and six for the female students. The differences can be summarised with the different responses to the overall learning experience (E5). Scores for C1 to C5 show apparent significant differences. This indicates that in respect of a number of elements of the course study experience, males view the impact of their characteristics as expressed through their constructs as being

somewhat different to those of females. To establish significance regarding the two male/female groups, a t-test is applied. This assists in establishing whether the student body is a homogenous group and make, ultimately, amendments to the design and delivery of the learning experience on the basis of the whole group, or, there are two distinct groups that demand separate consideration.

Where small sample groups exist, and their significance for a hypothesis needs to be assessed, a t-test calculation is appropriate. Here the t-test provides an indication of whether the responses from the male and female students represent simply two samples from the same ‘population,’ or whether they are so different that it is probable that they are distinct from each other and in fact represent different populations.

Assuming the hypothesis that the two groups represent the same population the t-test application to the data in Figures 4.3 and 4.4 as a whole returns a probability of less than 0.5%, and thus the hypothesis that the male and females represent a homogenous group may be rejected. To delve further, the test is applied to each construct in each of the two tables. The results are shown in Table 4.18.

	<i>Construct</i>	<i>Level of confidence</i>
<i>C1</i>	Domestic circumstances did not get in the way or hinder the Course experience	0.0%
<i>C2</i>	Length of work experience helped a lot in understanding the Course material	3.3%
<i>C3</i>	Nature and length of financially related work experience	0.3%
<i>C4</i>	Maths skills more than adequate to cope with the demands of the course	0.0%
<i>C5</i>	PC skills more than adequate to cope with the demands of the course	0.3%
<i>C6</i>	Design of materials helped a lot in providing a good experience	0.2%
<i>C7</i>	AV Materials helped a lot	54.8%
<i>C8</i>	Motivation to pass exams	29.5%
<i>C9</i>	Motivation to gain financial skills	93.9%

**Table 4.18** *Results of T Test applied to each construct*

These results indicate for constructs C1 to C6 there are strong indications that there is a distinct difference between the two groups but in constructs C7 to C9 there is no evidence of difference.

It is relevant to emphasise that the division between males and females which continually emerges does not mean that other potential factors that have and continue to emerge as influences upon a positive study experience should be dismissed. Age, length of work experience, and length of financially related work experience all emerge as influential in their own right. Permeating the findings, however, is the differing beliefs of males and females concerning how those and other factors impact upon their study experience in general and with regard to specific elements. For that reason, the gender differences assume a degree of priority in discussion of findings later.



## 4.8 Analysing the relationships between the constructs and the elements

Two further sets of analyses may be generated through analysing relationships between the means of constructs against elements. The first reflects broad indications of differences between males and females. The second explores relationships between constructs and individual elements.

### 4.8.1 Broad indications

The medians for constructs C1 – C5 inclusive show differences between males and females – and thus disagreement. Derived from the median scores shown in Figures 4.3 and 4.4, Table 4.19 captures the relativity of the differentials between male and female medians in the context of individual constructs across all elements. It reveals:

- the degree of disagreement between the male and female groups regarding constructs C1 to C6, and
- the degree of agreement between the male and female groups regarding constructs C7 to C9.

	<b>Construct</b>	<i>Median Score - Males</i>	<i>Median Score - Females</i>	<i>Differential factor</i>	<i>Rank order derived from differential factor, ranked from greatest disagreement first</i>
<b>C3</b>	<b>Impact of nature and length of financially related work experience across the elements</b>	2	6	3 times	1 <sup>st</sup> Greatest disagreement
<b>C4</b>	<b>Impact of maths skills across the elements</b>	2	5	2.5 times	Joint 2 <sup>nd</sup>
<b>C5</b>	<b>Impact of PC skills across the elements</b>	2	5	2.5 times	Joint 2 <sup>nd</sup>
<b>C1</b>	<b>Impact of domestic circumstances across the elements</b>	2	5	2.5 times	Joint 2 <sup>nd</sup>

<b>C2</b>	<b>Impact of length of work experience across the elements</b>	3	5	1.67 times	5 <sup>th</sup>
<b>C6</b>	<b>Impact of design of materials across the elements</b>	2	3	1.5 times	6 <sup>th</sup>
<b>C7</b>	<b>Impact of AV Materials across the elements</b>	2	2	1 times	Joint 7 <sup>th</sup> Most agreement
<b>C8</b>	<b>Impact of motivation to pass exams across the elements</b>	3	3	1 times	Joint 7 <sup>th</sup> Most agreement
<b>C9</b>	<b>Impact of motivation to gain financial skills across the elements</b>	3	3	1 times	Joint 7 <sup>th</sup> Most agreement

**Table 4.19** *Rankings of differences between males and females of impact of constructs across the elements based on median scores*

**Key:**

**Constructs** - **C1:** Domestic circumstances; **C2:** Length of work experience; **C3:** Degree of financial nature of work; **C4:** Maths Skills; **C5:** PC Skills; **C6:** Design of materials; **C7:** AV Materials; **C8:** Motivation to pass exams; **C9:** Motivation to gain financial skills

The characteristics and circumstances reflected by each individual construct in C1 to C6 are felt by females to have a greater negative impact upon perceived elements of the course experience. Conversely, males do not feel this. As a group, females have greatest concerns over the negative impacts of lack of financial nature work, domestic circumstances, maths skills and PC skills. There are clear indications that there is agreement between males and females regarding the positive contribution of each individual construct in C7 to C9. It would appear that both groups are in agreement regarding the positive impacts of the AV materials and the drivers of seeking to gain financial skills and pass the course.

Such analyses *across the grid* suggest:

- Males have longer work experience than females and usually the nature of their work is of a more financial , and thus they may well have a greater natural

empathy with the nature and context of the content of B655.

- Through more work of a financial nature, males may well have better spreadsheeting skills than females. This may also account for male perceptions that maths skills are less worrying, given their experience of managing budgets and financial decision making.
- Most males, even where they are parents, felt that their domestic circumstances did not impact negatively on the identified course elements. In contrast, females felt that they were often torn between family and other commitments and attention to the course. This was particularly so regarding challenges in attending face to face sessions. This has an enhanced negative impact on their course experience as such attendance is seen by both males and females as being a significant component of their course experience.

#### 4.8.2 More specific indications

Further analyses may be made, examining the data based on individual elements in relation to all of the constructs, thus reflecting an examination *down the grid*, based, again, on male and female groups. Figure 4.5 shows the differential of means between males and females for individual elements and individual constructs.

<b>Differential of means</b>					
	<b>E1</b>	<b>E2</b>	<b>E3</b>	<b>E4</b>	<b>E5</b>
<b>C1</b>	<b>2.05</b>	<b>4.42</b>	<b>2.32</b>	<b>3.12</b>	<b>2.90</b>
<b>C2</b>	<b>1.56</b>	<b>1.81</b>	<b>2.89</b>	<b>0.94</b>	<b>2.16</b>
<b>C3</b>	<b>1.37</b>	<b>2.79</b>	<b>2.81</b>	<b>1.49</b>	<b>2.77</b>
<b>C4</b>	<b>4.33</b>	<b>2.10</b>	<b>2.68</b>	<b>2.94</b>	<b>2.57</b>
<b>C5</b>	<b>4.08</b>	<b>1.86</b>	<b>1.33</b>	<b>2.21</b>	<b>2.70</b>
<b>C6</b>	<b>2.07</b>	<b>1.81</b>	<b>1.47</b>	<b>1.32</b>	<b>1.50</b>
<b>C7</b>	<b>0.86</b>	<b>0.52</b>	<b>0.96</b>	<b>0.90</b>	<b>1.64</b>
<b>C8</b>	<b>0.69</b>	<b>0.44</b>	<b>0.93</b>	<b>1.24</b>	<b>1.13</b>
<b>C9</b>	<b>1.29</b>	<b>0.94</b>	<b>0.56</b>	<b>1.53</b>	<b>1.00</b>

Figure 4.5 *Differential of means between males and females*

**Key:**

**Elements** - *E1: Time taken to study materials; E2: Experience of optional face-to-face sessions;*

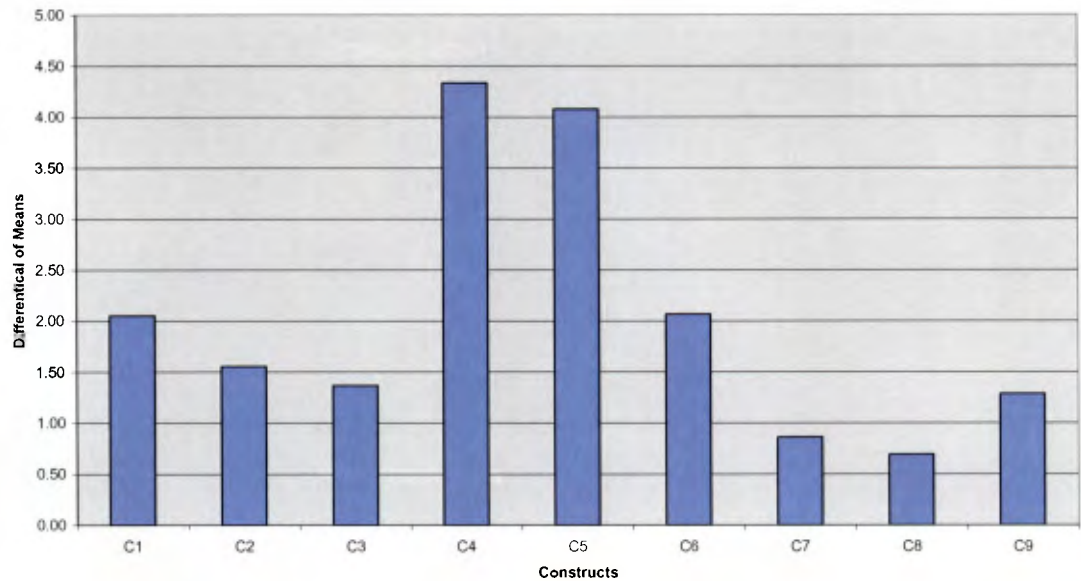
*E3: Assignments; E4: Exam; E5: Overall study experience*

**Constructs** - *C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills*

The data in Figure 4.5 may be presented pictorially in charts, showing the relationships *down the grid* between individual elements and all the constructs in each column. The relativity of each of the five columns in the grid is represented in, respectively, Figures 4.6 to 4.10.

Figure 4.6 shows in relation to element 1 – *time taken to study the materials*, the two highest differentials are for constructs C4 (maths skills) with a differential factor of 4.33, and C5 – PC skills, with a differential factor of 4.08. Respectively these are both considerably higher than for the other constructs. Accordingly, females appear to take longer to complete those sections of the course materials requiring the application of maths and PC skills. Clearly, in light of B655 being of a financial nature and requiring a spreadsheet to be constructed for TMA 3, these aspects may indeed impact adversely on the study experience and, potentially, on the academic score outcome. This may require the course team to consider including ways of improving confidence in these areas within the curriculum design.

Differentials between Males and Females of Individual Constructs against Element 1



**Figure 4.6** *Differentials of construct means against element 1 – Time taken to study materials*

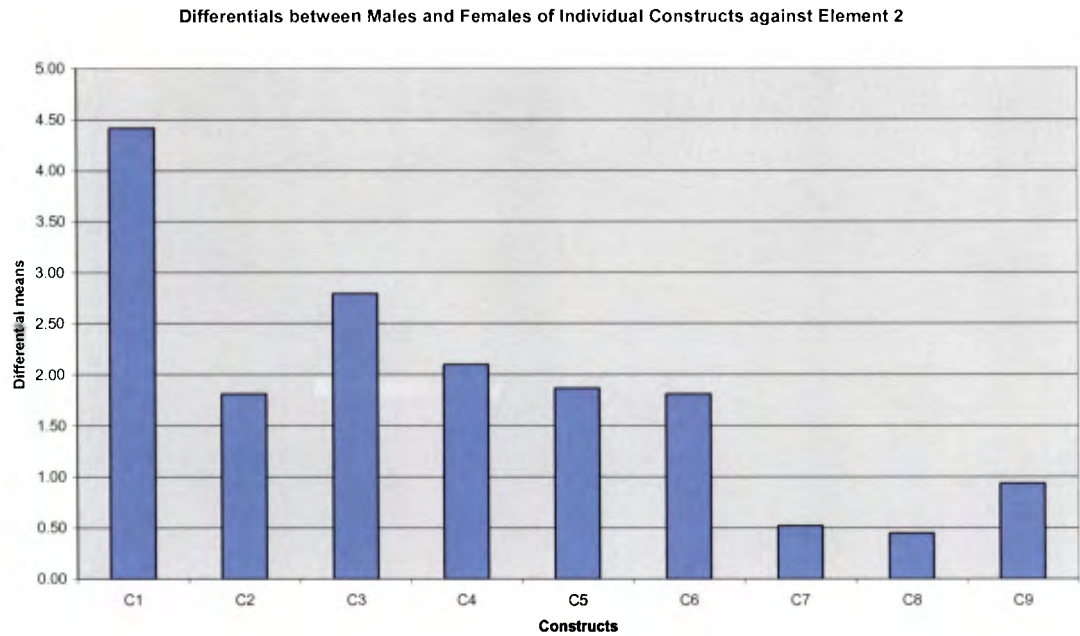
**Key:**

*Element - E1: Time taken to study materials*

*Constructs - C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills*

Figure 4.7 shows that in relation to element 2 – *experience of optional face-to-face sessions* - the two highest differentials are for constructs C1 (domestic circumstances) with a differential factor of 4.42, and C3 (degree of financial nature work) with a differential factor of 2.79. C1 –These differentials suggest that attending and participating fully in the face to face sessions is particularly challenging. Given that the sessions have been identified as key within the study experience, difficulties with attendance and/or participation may impact upon the academic outcome. The implications for the course team may centre on timings of face to face sessions, the provision of alternative experiences for those unable to

attend, and the use of activities which do not assume that all students have an empathy with the context of financial responsibilities in the workplace



**Figure 4.7** *Differentials of construct means against element 2 – Experience of face to face sessions*

**Key:**

**Element - E2:** *Experience of optional face-to-face sessions*

**Constructs -** *C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills*

In Figure 4.8 it can be seen that in relation to element 3 – *assignments*, the two constructs with the highest differentials are constructs C2 – length of financial work, with 2.89, and C3 – degree of financial nature of work, with 2.81. TMAs 1 and 3 are based on work based scenarios. Clearly if some females do not have financial responsibilities at work, the TMAs present challenges. TMA 1 also requires understanding of the management concept of *inputs into outputs*. If females have less management experience than males more challenges are presented. Each of the three TMAs requires mathematical calculations. It is interesting to note that in relation to

assignments, the next highest differential is for construct 4 – maths skills. There appears to be a pattern emerging when taken with previous considerations.

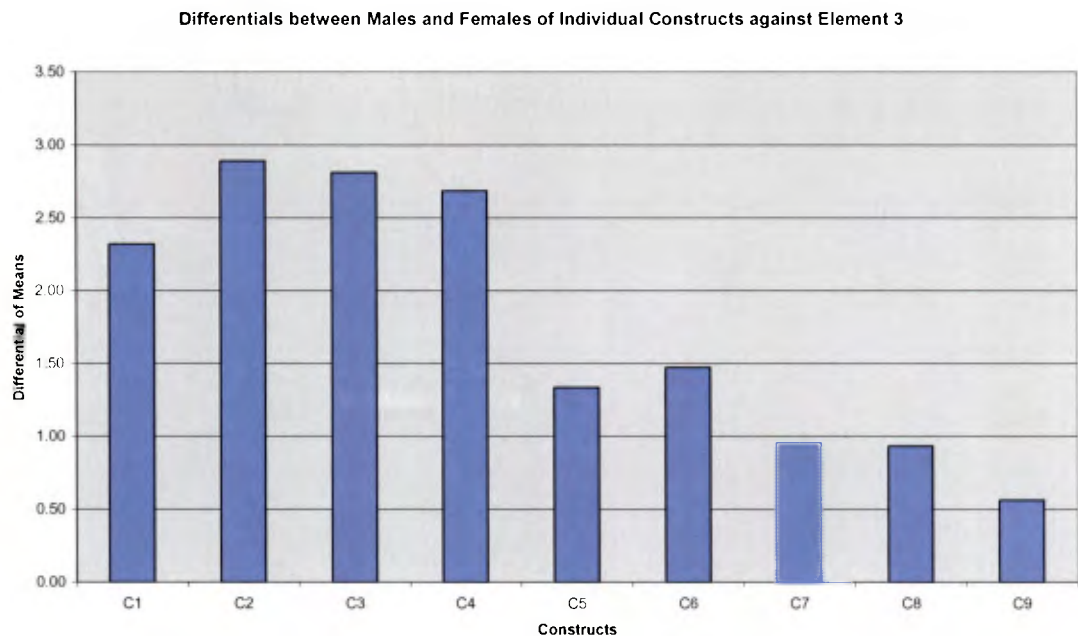


Figure 4.8 *Differentials of construct means against element 3 – Assignments*

**Key:**

*Element - E3: Assignments*

*Constructs - C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills*

Figure 4.9 refers to element 4 – exams. The two highest construct differentials are for C1 – domestic circumstances at 3.12, and for C4 – maths skills at 2.94. There is no evidence that domestic circumstances physically prevent females attending exams. The tone of the interviews suggests, rather, that there is a cumulative effect of domestic challenges throughout the course, culminating in, possibly, a lack of confidence as the final hurdle of the exam appears. There have already been indicators of challenges with maths, and, of course, the exam involves the application of maths skills under pressurised conditions.

Differentials between Males and Females of Individual Constructs against Element 4

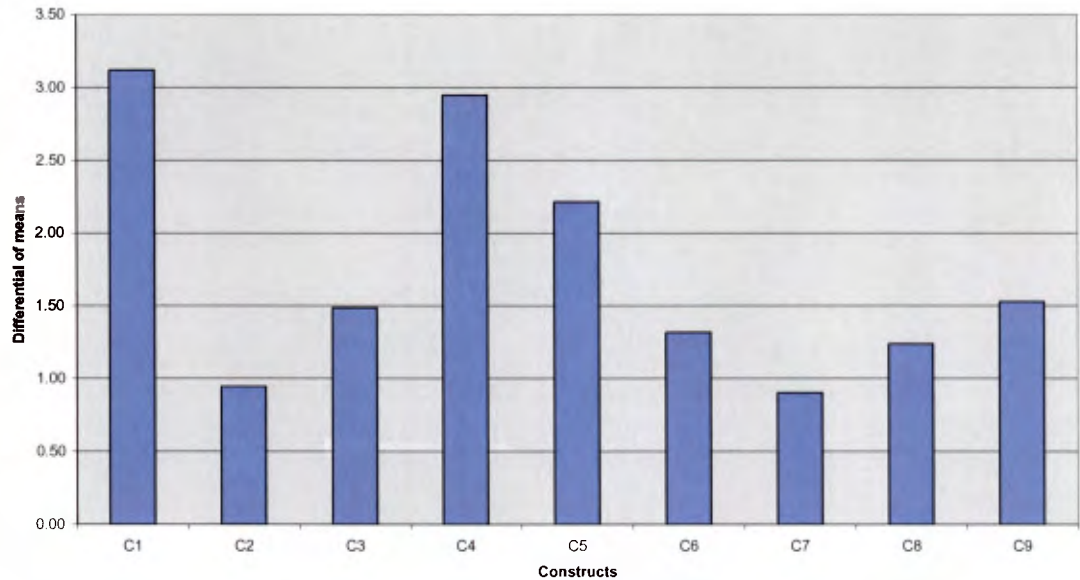


Figure 4.9 Differentials of construct means against element 4 – Exam

**Key:**

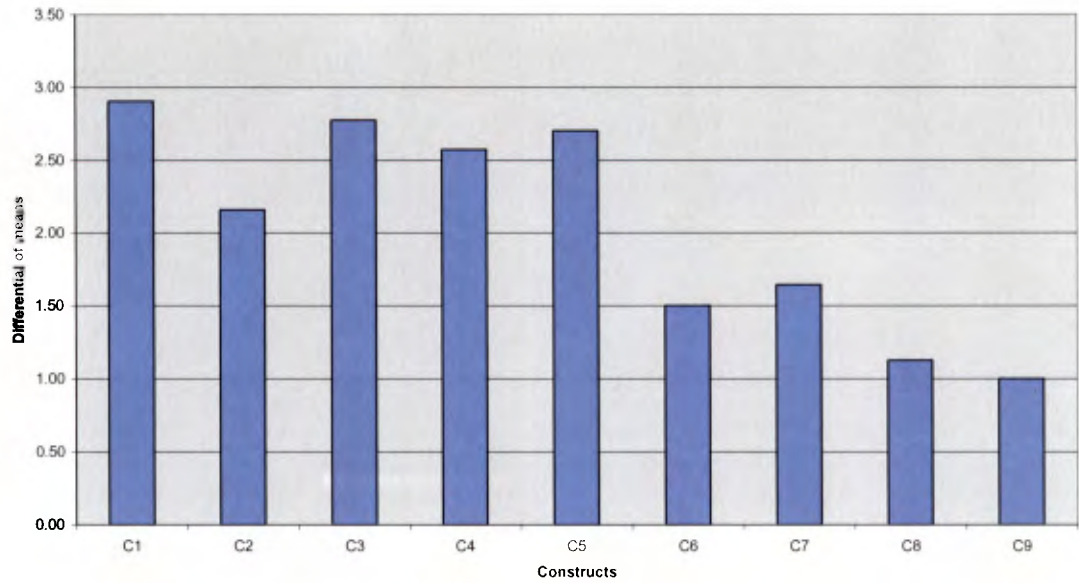
**Element - E4: Exam**

**Constructs** - C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills

Element 5 is the *overall study experience*. The four constructs with the highest differentials confirm that pattern. Figure 4.10 shows the construct with the highest differential is C1 – domestic circumstances, with 2.9. This is followed by C3 – degree of financial nature at work, 2.77, C5 – PC skills with 2.70, and C4 – maths skills, with 2.57. These are all views which females in particular have expressed regarding hindrances to studying the course and provide food for thought for the course team. The emergence of an indicative pattern provide a platform for the construction of broad typologies, linking the pattern to academic scores,



Differentials between Males and Females of Individual Constructs against Element 5



**Figure 4.10** *Differentials of construct means against element 5 – Overall study experience*

**Key:**

*Element - E5: Overall study experience*

*Constructs - C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills*

#### **4.9 Identifying typologies in relation to academic scores**

The analyses immediately preceding have generated discernable patterns. These patterns may now be matched against academic scores to ascertain whether or not it is possible to identify groups of typologies. Given the marked differences between males and females revealed by the analyses, it is appropriate to commence with a broad typology based on gender. That is then followed by other sets of typology.

#### 4.9.1 Gender-related scores

The gender-related scores for TMAs, exams and overall course scores are shown in Table 4.20

	<i>Male (N=24)</i>		<i>Female (N=14)</i>	
	<i>Mean</i>	<i>Standard deviation</i>	<i>Mean</i>	<i>Standard deviation</i>
<b>TMA01 score</b>	58.1	3.8	55.2	4.3
<b>TMA02 score</b>	63.9	6.8	57.2	6.2
<b>TMA03 score</b>	70.4	8.1	62.2	8.9
<b>Overall TMA score (weighted)</b>	65.0	6.0	58.9	5.9
<b>Exam score</b>	62.1	9.3	51.5	11.0
<b>Overall score</b>	63.3	7.3	54.9	8.1

Table 4.20 *Gender-related mean scores and standard deviations*

At first glance, males appear to be outperforming females in each of the different assessments. A one-sample Kolmogorov-Smirnov test was used to test for normality in each of the B655 assessments, and an *F*-ratio calculated to test for homogeneity of variance. The results are shown in Table 4.21.

	<i>Kolmogorov-Smirnov</i>		<i>F-ratio</i>
	<i>Male (N=24)</i>	<i>Female (N=14)</i>	
<b>TMA01 score</b>	*	ns	ns
<b>TMA02 score</b>	ns	ns	ns
<b>TMA03 score</b>	ns	ns	ns
<b>Overall TMA score (weighted)</b>	ns	ns	ns
<b>Exam score</b>	ns	ns	ns
<b>Overall score</b>	ns	ns	ns

\* Significant at the 0.05 level

Table 4.21 *Tests for normality and equal variance on B655 assessment performance data*

There is one significant result in the Kolmogorov-Smirnov test (TMA 1 score for males). However, the *t*-test is robust and will tolerate some non-normality (Black, 1999: 419). Results of *t*-tests are shown in Table 4.22. Results indicate that gender is a significant factor in B655 assessment performance.

<i>t</i> -test	(N=38)
TMA01 score	**
TMA02 score	**
TMA03 score	**
Overall TMA score (weighted)	**
Exam score	**
Overall score	**

\*\* Significant at the 0.01 level

Table 4.22 *t*-test of gender-related academic scores

This suggests the distinctions that exist between the study experiences of males and females, and that, possibly, a poorer experience produces poorer assessment results. This should not be assumed. Accordingly, it is appropriate to seek to identify further typologies based on gender matched against scores.

#### 4.9.2 Identifying further typologies

Further analyses were undertaken, utilising the views of participants regarding the five constructs that males and females had the greatest divergence of views on. These are:

- C1: Domestic Circumstances hindering/not hindering
- C2: PC skills hindering/not hindering
- C3: Length of work experience hindering/not hindering
- C4: Nature of financial work hindering/not hindering
- C5: Maths skills hindering/not hindering.

A linking of each of the five constructs with gender-related score bands produces clearly discernable patterns. The linking is based on the rankings by students of the

degree of perceived impact of each construct on the overall study experience. The original rankings were based on a scale of 1 to 7, with the lower end reflecting more positive/less negative impacts upon the study experience, and the upper end reflecting less positive/more negative impacts upon the study experience. The numbers of people with individual rankings above and below 3.5 for each of the five constructs are matched against the overall score. The results are revealed in Table 4.23. These indicate that the less positive/more negative impacts of the constructs analysed appear to have some greater degree of association with lower performance by females. This indication is evidenced by:

- 75% of males scored below 70% with 85.7% of females in the same banding
- 14.3% (derived from  $(85.7\% - 75\%)/75\%$ ) more females than males fell into the mid and lowest bandings
- 20.8% of males scored below 55% with 28.6% of females (being 37.5% more than males) in the same banding
- 37.5% (derived from  $(28.6\% - 20.8\%)/20.8\%$ ) more females than males scored in the lowest banding.

These statistics suggest the perceptions of females regarding the impact of the constructs on their study experience, may well be associated with negative impacts of each of the five constructs.

In relation to the four females scoring below 55%:

- 100% cited domestic circumstances as hindering their study experience.
- 75% cited similar hindrance from relatively short lengths of working experience.
- 75% viewed their limited or non-existent financial nature of work as having negative impacts
- 100% viewed their level of maths skills as impacting negatively

50%, the lowest proportion, were challenged by their level of PC skills.

Males B655 % Score N = 24	70+	55 – 69	40 - 54	Females B655 % Score N = 14	70+	55 – 69	40 - 54
	N = 6 (25%)	N = 11 (45.8%)	N = 5 (20.8%)		N = 2 (14.3%)	N = 8 (57.1%)	N = 4 (28.6%)
C1	0	1 (9.1%)	2 (40%)	C1	1 (50%)	6 (75%)	4 (100%)
C2	0	1 (9.1%)	1 (20%)	C2	0	3 (37.5%)	3 (75%)
C3	0	1 (9.1%)	1 (20%)	C3	0	3 (37.5%)	3 (75%)
C4	0	1 (9.1%)	1 (20%)	C4	0	4 (50%)	4 (100%)
C5	0	1 (9.1%)	2 (40%)	C5	0	3 (37.5%)	2 (50%)

**Table 4.23** *Means above 3.5 of individual constructs related to overall course academic scores*

**Key:**

**Elements** - E1: Time taken to study materials; E2: Experience of optional face-to-face sessions; E3: Assignments; E4: Exam; E5: Overall study experience

**Constructs** - C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills

A further examination of Table 4.23 reveals that for females, the two constructs appearing to most hinder the study experience when linked to the academic score are C1: *Domestic circumstances* and C4: *Level of maths skills*. These are followed by C2: *Length of work experience* and C3: *Degree of financial nature of work*, with C5: *PC skills* producing the lowest relative negative impact. Interestingly, when the male perceptions are analysed, the construct with the highest relative degree of negative impact is, as with females, C1: *Domestic circumstances*. An interesting outlier is to be found in males scoring below 55% also citing C5: *PC skills* as having equal negative impact as domestic circumstances, contrary to the female perceptions.

These as individual associations are interesting in their own right. What is of potentially greater interest are associations by group, providing typologies revealing more comprehensive profiles when linked to course outcomes when articulated as the overall study experience, and through course scores.

#### **4.10 Typologies based on associations between constructs and course outcomes**

A further analysis of data shows patterns of associations between combinations of constructs and, first, the overall B655 experience, and then three groupings of course scores reflecting bandings of 70%+, 55-69%, and 40-54%. These are detailed for females in Table 4.24. Constructs receiving mean ranking of more than 3.5 are considered in sets of combinations of constructs. These combinations are derived where those individual females ranked each of the five constructs as identified in Table 4.23 but where they also rank more than one construct above 3.5 in relation to Element 5 *Overall Study Experience*. These are then categorised within such combinations according to their final academic course scores. For example in Table 4.23 the one female, with an academic score within the 70%+ band felt C1 negatively impacted her studies but also felt that C2 also had an impact on her overall B655 experience. Conversely, the other female with an academic score within the 70%+ band did not feel any single construct impacted on her (Table 4.23) and nor did any combination of constructs (Table 24).

<b>Females</b>	<b>Overall</b>	<b>70%+</b>	<b>55 – 69%</b>	<b>40 – 54%</b>
<b>Sets of combined constructs</b>	<i>N</i> = 14	<i>N</i> = 2	<i>N</i> = 8	<i>N</i> = 4
<b>No combination</b>	2 (14.3%)	2 (14.3%)	0	0
<b>C1 + C2</b>	1 (7.14%)	0	1 (12.5%)	0
<b>C1 + C2 + C3</b>	3 (21.4%)	0	2 (25%)	1 (25%)
<b>C1 + C2 + C3 + C4</b>	5 (35.7%)	0	3 (37.5%)	2 (50%)
<b>C1 + C2 + C3 + C4 + C5</b>	1 (7.14%)	0	0	1 (25%)
<b>C1 + C4 + C5</b>	2 (14.3%)	0	2 (25%)	

Table 4.24 *Occurrences of combined sets of constructs for females, derived from earlier analyses of means via visual laddering*

**Key:**

**Constructs** - *C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills*

These occurrences suggest that there are sets of characteristics and circumstances which are particularly associated with first, a not so good study experience, and second, lower scores. By combining the two, it is appropriate to suggest that such sets of characteristics and circumstances have strong associations with lower scores. The sets with the strongest associations are shown in rows 5 and 6 in Table 4.24, combining *C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills*. When compared to females, males perceive a combination of less hindrance and greater assistance from these five constructs. This indicates that females are at a disadvantage to males, experience a ‘less good’ study experience, impacting negatively upon the course scores.

Specifically, Table 4.24 reveals a cumulative effect as each construct to a previous set. The one individual female falling into the 55-69% banding perceived that the C1: *Domestic circumstances*; C2: *Length of work experience* (C1 + C2 combination) impacted most negatively upon their study experience. That individual scored 61%. The addition of C3: *Degree of financial nature of work* (C1 + C2 + C3), results in two females falling within the 55-69% band and one in the lowest banding of 40-54%. The two in the 55-69% banding each scored between 58% and 60% respectively – lower than the one individual who felt negative impacts from only C1 + C2. The one female falling into the 40-54% band scored 53%. The addition of C4: *Maths Skills* (C1 + C2 + C3 +C4) results in three females falling within the 55-69% band and two in the lowest banding of 40-54%. The three females in the 55-69% banding scored 55%, 57% and 58% respectively – lower than the two individuals in that band who feel negative impacts from only C1 + C2 + C3. The two females falling into the 40-54% band scored 50% and 48% respectively, again lower in comparison to those impacted by C1 + C2 + C3. The addition of C5: *PC Skills* (C1 + C2 + C3 + C4 + C5) reveals one female falling within the 40-54% banding scoring 43%, the lowest score of all thirty eight students in this study.

<b>C1 + C2</b>	<b>C1 + C2 + C3</b>	<b>C1 + C2 + C3 + C4</b>	<b>C1 + C2 + C3 +C4 +C5</b>
61%	58%	55%	43%
	60%	57%	
		58%	
		48%	
		50%	

The cumulative addition of C3 and C4 suggests that the addition of the financial nature of work and maths skills makes an important difference. The indication is that females who feel they may be disadvantaged in any event as a result of both particular domestic circumstances and shorter lengths of work experience, are likely



to be further disadvantaged through a lack of financial experience at work, and lack of confidence relating to their level of maths abilities. There may well be interconnections here. If a female has a shorter length of work experience, it may well be that she has had fewer opportunities to engage in work of a financial nature. The management of budgets and involvement with financial decision making may well be associated with progression through a career path involving promotion, a step often requiring experience. Involvement on a regular basis with financial work will involve working with figures and numbers. Regular and repeated exposure may well enhance maths skills. Although the addition the PC skills construct (C5) does not provide a difference of the same magnitude, some impact may exist in that work of a financial nature may often involve the use of spreadsheets, enhancing PC skills.

The overall indication is that the combination of specific circumstances and characteristics may impact in such a manner that the study experience is impacted in such a manner that academic scores are affected. It is difficult to say if the converse applies in the contexts of males. As indicated within the analyses, there is some suspicion on my part that some male interviewees may have been biasing and skewing their answers. I sensed with some males that male bravado, for want of a better term, might have encroached upon responses, reflecting a view that those respondents needed to be 'seen' to be good at just about everything, and able to overcome any challenges associated with engaging with B655. It must be stressed that there is no hard evidence to support this and it may be worthy of a future investigation.

In considering these typologies, it must be remembered that some of the potential influences suggested in chapter 2 by researchers such as Tinto, Kember and

Rowntree have not been taken account of in this study. For example, the potential influences of ethnicity and socio-economic background have not been identified. Both may have links with domestic circumstances, ability to acquire employment, and career progression. The primary and secondary school contexts referred to chapter 2 may have implications for prior academic attainment, in turn influencing the B665 study experience in general and possibly particular elements such as Maths and PC skills.

#### **4.11 Chapter 4 in review: summation of key findings**

This chapter has demonstrated how data has been collected, collection validated through a set of pilot interviews, and how content analysis and repertory grid analysis have been applied to the data collected. The analyses identify the elements within the course curriculum which students perceive as being significant within their study of the course. These elements are E1: Time taken to study materials; E2: Experience of optional face-to-face sessions; E3: Assignments; E4: Exam; E5: Overall study experience. The analyses additionally identify the characteristics and circumstances of students, as perceived by students, which most impact either positively or negatively upon the elements. These perceptions – their constructs - are C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills; C6: Design of materials; C7: AV Materials; C8: Motivation to pass exams; C9: Motivation to gain financial skills. The constructs impacting to the greatest extent are C1: Domestic circumstances; C2: Length of work experience; C3: Degree of financial nature of work; C4: Maths Skills; C5: PC Skills. When mapped against females, these constructs impact negatively on course scores, reflecting a reality of the lives of females. When mapped against males, those same constructs have little or no impact in the negative sense. As indicated at the end of the previous section, it is challenging to find conclusive results relating to males. That said, across both males and females, the analyses indicate that males benefit from length of work experience, financial nature of work, maths and PC skills. They are less affected by domestic circumstances than females. Females suffer from shorter lengths of work experience, linked to domestic circumstances. As a consequence, they are likely to have fewer financial responsibilities, with lower levels of spreadsheet skills given that lack of

financial responsibilities. A further consequence is the less application of maths skills. The analyses in this chapter provide a basis for discussion in chapter 5.

## Chapter 5

### Discussion of findings

#### **Introduction**

In this chapter the findings resulting from the data analyses in chapter 4 are reviewed and discussed. Thereafter, as the research questions articulated in chapter 1 espouse an inductive approach, the discussions arising from the data analyses are linked back to the themes identified in chapter 2. The implications for responding to the research questions are discussed. Such discussions provide a base for conclusions in chapter 6, identifying matters and issues which may, indeed should, be of interest to educators in the OUBS community in seeking to improve the experience of students of *accounting for managers* type courses and, potentially, for other courses. Indeed, such conclusions may have some relevance to other distance learning educators elsewhere.

I commence with a short discussion based on general observations of the outputs from the analyses. I then proceed to discuss in detail more specific observations of students' perceptions of their study experience and the implications for course scores.

## 5.1 Discussion of analyses: general observations

This study has sought and provides representations of the perceptions of students concerning what factors and issues impact upon their study experiences. Those factors and issues are areas and issues connected with characteristics and circumstances of students, elements of the course design, and their inter-action. In broad terms, a range of positive, negative and neutral aspects have emerged. These are considered first.

Drawing upon 4.8b) in chapter 4, an initial observation is that that 79% of interviewees reported the B655 study experience as being excellent, very good or good, with only 5.8% (2 out of 38) reporting a poor experience. This does that not mean the curriculum design of B655 should remain unchanged. As identified in chapter 1, the arena of higher education has entered what might well be described as *a brave new world*, full of challenges. To bask in reflected glory in that context might prove to be a dangerous strategy. An imperative to consider contextually is that of continuous quality improvement. Accordingly, in the same vein, those aspects categorised as negative and neutral should not be ignored as they may prove enlightening. This is particularly the case with the neutral category shown in Table 4.9. For example, each of the eight reporting level of required maths ability as being neutral has scored C grade or higher at GCSE. Accordingly, they may have reported a neutral view because they had no problems with the level of maths in the course rather than because of clear explanations of calculations within the B655 materials. Seven reported neutral views of the content of face to face sessions but of those seven two had not been able to attend any of the sessions and thus may have felt unable to offer a view. Of the six who reported neutral views concerning the need to draw upon financial experiences at work, four had relatively significant experience.

The remaining three aspects reported as neutral appear to have no underlying set of characteristics across the spectrum of relevant interviewees.

## **5.2 Discussion of findings associated with the study experience**

Referring back to chapter 4, an interrogation of the themes in Table 4.15, and the nine constructs identified in Figure 4.16, together with interview transcripts, reveals interesting insights. The interrogation is located within the areas of Gender, Age, Nature and length of work experience, Nature and length of financially related work experience, Prior academic attainment, Level of maths ability, Attendance at and content of optional face to face sessions, Domestic circumstances, and Level of PC/spread-sheeting ability. Each area is considered in turn next, commencing with Gender, which emerged as a particularly significant area warranting a deal of attention.

### **5.2.1 Gender**

The analysis in Table 4.10 reveals a dichotomy of views between males and females regarding the degree of significance of Gender as a factor. Nine (64.3%) of the fourteen female interviewees feel that aspects associated with Gender impact adversely upon their studies, aspects relating mainly to arrangements for tutorials and day schools, and coursework deadlines. A chi-squared test shows the differences in Table 4.10 to not be significant. That said, the views expressed in the interviews provide insights into the views of some students, views which might well inform future OUBS considerations. A number of views expressed reflect concern that OUBS seems to take no account of the combined impact of managing domestic

responsibilities and work demands, not least in the scheduling of face to face sessions. This combined impact is in itself is a key finding which should be of interest, indeed concern to curriculum designers. These are explored further under *Domestic circumstances*, but selected quotes of an indicative nature of the concerns expressed are cited below, with significant parts of each quote highlighted.

### *Comments*

The first set of comments concern tutorials and day schools.

- *I managed to get to only half the tutorials and one of the day schools. It's quite difficult trying to juggle everything...what with the children and a busy job. I'd have loved to attend more 'cos I really enjoyed and got a lot out of the ones I did get to. I wouldn't say I suffered because of it but I feel I might have done better, even though I did alright. It's a shame they're held when they are but I'm not sure what you could do about it. (F3)*
- *I managed to attend only the first one and I had to move heaven and earth to do that...a busy life and two demanding kids just got in the way of the others. That's a shame as others told me how useful they were. I really wonder if my exam mark of 53 might have been that much better if I'd managed to get to all or even some of the tutorials. (F7)*

The second set relates to tutor-marked assignments (TMAs):

- *I understand why there have to be deadlines for TMAs and for those first two it was good to be able to ask for an extension. But that final one has to be in on that date and I really struggled. I had one child down with mumps and somebody was off work then and I'm sure I would've got a better mark for that one if I could've had a bit more time. (F9)*
- *Two of the TMAs are work related and I think I was slightly hampered by being female. At work there's almost a hidden barrier block to women. The men seem to get more responsibility sooner so they get more financial aspects at work. That makes it easier to do the assignments. I don't do that much with finance things so I found those ones quite difficult. (F9)*

The issue of Gender is not restricted to females. Eleven (45.8%) of the twenty four male interviewees also feel that aspects associated with Gender impact adversely. That said, further interrogation reveals that eight (72.7%) of those eleven males are commenting more on the impact on females rather than on themselves, showing



some acknowledgement by those males of the challenges presented by domestic circumstances, even if they themselves were not impacted. Although not evidenced in direct comments, my sense as interviewer is at least two of those eight males were paying 'lip service'. Aspects associate with *Gender* materialise across the whole range of analyses. These are referred to as appropriate as each area is considered.

The literature review in chapter 2 identifies contradictory findings: Mutchler *et al.* (1987) and Tyson (1989) indicating better performance by females in both mean scores and grade of achievement with Lipe (1989), Williams (1991) and Koh and Koh (1999) showing better results achieved by males. This study finds that males outperform females. It goes further to identify potential causes why, as discussed later in this chapter.

### 5.2.2 Age

In section 2.1.1.6 in chapter 2, the review of prior research concerned with *Age*, as with *Gender*, shows contradictions and inconclusive results. *Age* as a factor in isolation does not seem to be a major factor impacting upon the study of the course. The interviews reveal, however, some concerns about returning to study after some period of time away from studying. Some slightly older participants, particularly male, feel there is a link between age and their study experiences. Of significance here is some indication, both implicit and explicit, of association between *Age* and *Nature/length of work experience* and, potentially, *Nature and length of financially related work experience*. The existing literature provides no such associations. The comments below indicate that students perceive such associations to exist.

### **Comments**

- *From one angle, no, I don't think it matters. After all the course starts from scratch and assumes no knowledge. That said, the older you are the more likely you are to have more experience of financial things at work so I guess that would help in some way. (M3, aged 37)*
- *Yeah, it does help being older cos of the work I do. I could identify with a load of the ideas. I'm sure that if I'd done this a few years ago I wouldn't have cottoned on as easily as I did. (M9, aged 29)*

Such comments link directly to the next area.

### **5.2.3 Nature and length of work experience.**

The literature review identifies little prior work relating to either length of work experience and nature, particularly financial, of work. Where it does exist it suggests that both aspects contribute towards improved performance. In this study, both aspects are identified as major influences. The comments on *Age* indicate that participants see connections between age and work experience. When probing the data, it becomes apparent that 71% (twenty seven) of interviewees, regardless of *Age* as a factor, assess having a deal of length of work experience as being of benefit in general terms. Comments on length of work experience reveal a view that organisational experience helped.

### **Comments**

- *Even if you haven't had that much financial experience at work, having worked for a while is really good...you understand what's going on around you and in your own company, and you sort of understand there's a financial climate and how it works. That applied to me you see as I don't even manage a budget but because I've been there seven years I could understand what the course material was trying to get at so, yeah, it was helpful to have general experience. (M17)*
- *I've been around a while now and though I have not much to do with budgets and stuff my general work experience made it easier for me to*

*make sense of the financial terms in the course as I hear them a lot. I think if I'd only been working for a year or two it would have been harder. (F11)*

The twenty seven referred to above comprise sixteen males (66% of the twenty four males) and eleven females (77% of the fourteen females). Interestingly, in the main, the males report positive impacts from their work experience. Females, in the main, feel disadvantaged by shorter work experience lengths, particularly in the contexts of maternity leave and return to work on a part-time basis. Compounding these views is the nature of work when financial work experience is considered, a finding not apparent in prior literature.

#### **5.2.4 Nature and length of financially-related work experience**

This area was identified in the IFS as reflecting a clear association with the B655 academic score outcome. The findings in this study reinforce that association. As with the generic of length of work experience, the views expressed revealed a broad opinion that involvement in financial matters at work is very positively helpful. This is particularly so for males, with, again, females feeling adversely impacted by a lack of relevant financial experience

#### **Comments**

- *No I don't have much to do with financial decisions and budgets but I don't feel that that was a serious handicap. The material was clear enough. I guess if I'd had more experience that probably would have been a help. (F4)*
- *I found the fact that I'd managed budgets for a few years really useful in helping me to understand the ins and outs of it all. It really helped in being able to do the final TMA and in fact it was a bonus to discover I'd been doing it the right way all this time. (M9)*
- *For example I've done a fair bit of contribution analysis and break even decisions over the years and I've even done some of the relevant costs*

*incremental cash stuff and that really helped me in making a success of the course. It felt really comfortable. (M22)*

Eight (57%) of the fourteen females have little financial work experience whereas seventeen (71%) of the males had financial experience of substance. Twenty-two (58% of the population of thirty eight) also report the *need to draw upon financial experiences at work* as being positive. This is, in the main, because those interviewees are able to relate the course content to their jobs and the financial contexts of the organisations they work in. Of that twenty-two, eighteen (82%) are current budget holders and receive regular financial information at work. An interesting feature of this aspect is that whilst twenty two view it as positive, ten interviewees (26% of thirty eight) view it as negative, not being budget holders, with eight of the ten being females. An analysis of the transcripts reveals that all of the ten had a degree of difficulty in relating some of the course content with their work. This is not surprising given that eight of the ten are not and never had been budget holders, and two have very small budgets. The course design may need to take account of non-budget holders in some way, particularly in the context of the OU's commitment to equal opportunities. It may well be that this might be attended to by engaging non-budget holders in two ways. One might be to emphasise the fact that non-budget holders are usually part of somebody else's budget and perform activities and consume resources associated with that budget, and thus impact directly on it. Another might be to engage such students in the context of owning and managing a small business funded by a bank loan secured on their house. In that scenario, the significance of budgeting is most certainly emphasised. The combination of interruption to work for females and lack of financial work experience appear to have conspired to act against female students in terms of their study experience and

resultant lower academic scores. The OU's commitment to equal opportunities effectively demands that these particular and other similar female students are not disadvantaged.

This area, as suggested earlier, is little researched, particularly when linking it to gender issues. It is a key finding and emphasises how useful the repertory grid analysis is in illuminating the research.

#### 5.2.5 Prior academic attainment

In the literature review, the work on undergraduate courses indicates a strong association between previous academic attainment and course performance. In contrast, in the context of a distance learning course for working managers, the analysis in chapter 4 suggests that whilst some association exists, it is not as significant as in other studies. B655 is an open access course and thus any person with or without formal qualifications may enter. A majority (78%) of participants have secondary education level qualifications (A Levels and GCSEs) with 64% having GCSEs, 14% with A Levels and 22% with degrees or diplomas. Participants, in the main, do not see any adverse impact relating to level and/or type of prior academic attainment. There is, however, an issue of confidence.

#### **Comments**

- *No. it didn't seem to make that much of a difference. I left school at 16 with a few GCSEs and I thought I might suffer. I thought there'd be lots of high flyers in my tutorial group but it wasn't that way at all. I was too concerned about how good others might be and me not. It was all about confidence but the way the course was put together really helped there.*  
(M19)

- *I was really worried. Only four GCSEs and being at university after ten years. I really thought I might sink. But I found that the others, well a lot of them, seemed to be in a similar position but in the end it didn't seem to make much difference, which was a bit of a relief. (F30)*
- *Well, as you know I've got my degree but despite that I was worried. Well, engineering is straightforward and though I wasn't worried about the effective management course I took first, accountancy's different isn't it? So though I've got a degree I was still concerned. (M14)*

The interviews indicate, although without supporting hard evidence, that males appear more confident, although this may possibly be associated with a degree of 'male bravado', seeking to avoid 'loss of face'.

### **5.2.6 Level of maths ability**

All participants have, as a minimum, GCSE (or equivalent) Maths, but the majority (84%) having no qualification higher than that. Prior literature indicates a strong association between maths ability and course outcome. Indeed, the prior work undertaken by myself and summarised in section 2.1.2 in chapter 2, reveals a link between a higher B655 score and prior maths attainment. That said, as with prior academic attainment, the concerns of participants are associated with confidence. Males seem less concerned, with some indication that calculators and spread sheets could handle the 'number crunching'. Females certainly are more expressive regarding their concerns. This may indicate that this is a reporting issue rather than a disadvantage for females that might influence performance.

### **Comments**

- *I'm just not that good at maths and numbers and it's been twelve years since I did maths so I was really worried about it. After all you can't do accounting without the numbers can you? There were bits where I struggled but it was interesting to see how a lot of it was words and a lot of*

*the calculations were quite straightforward. The ratios bit could have had clearer explanations though but in the main it was a lot better than I thought it would be. (F22)*

- *I was really worried. I'm just not good with numbers. Never was at school and only just scraped it. I did struggle a bit and it was all about getting back into it. From one angle it was ok cos some of the calculations were really quite easy but bits like the overhead rates and flexed budgets were really hard and I thought there could have been more help and explanation although that perhaps was down to me just not being good with numbers. (F9)*

Twenty two (58%) of the thirty eight interviewees rate their experience as positive. The transcripts show the reason for this view is that many interviewees are pleasantly surprised to discover the level of required maths ability is relatively low. That said distinct differences between males and females emerge in the analyses in chapter 4. Yet again, looking wider, there is a case for visualising a number of issues associated with lack of confidence amongst females, contributing to a less satisfactory experience. Eight (21% of eighty eight) rate their experience as negative. The transcripts show two had struggled with basic maths at school, one male and one female, and this had proved a challenge throughout their lives. Of the other six, two, both female, suggest that their challenges arise from the fact that their jobs involve no budgetary responsibilities and virtually no number-related work. The remaining four – three female - reflect the view that their problems are specifically associated with the calculations needed for financial ratios and would welcome further explanation in the text. There is a suggestion that as a substitute for understanding the relationships within the financial ratios calculations, they resort to learning formulae through rote learning.

### 5.2.7 Attendance at and content of optional face to face sessions

Little prior work exists in this area. In this study it emerges as significant and a key finding. The majority of people (71% of thirty eight) attended all the sessions, with the others attending at least half of the sessions. They feel they benefited from that attendance, not least in the form of boosting confidence. Those who did not attend all of them feel they suffered as a consequence. Those not attending all of them cite domestic and/or work reasons as the causes of non-attendance. The face to face sessions are optional but it is apparent that it is felt strongly they are essential parts of the course, for both academic and peer support reasons.

### **Comments**

- *I thought the tutorials were really good. They clarified things in my mind. Even when I thought I knew what was going on it was good to get confirmation that I was in fact doing things the right way. (M11)*
- *Sometimes you just need to have another go at the numbers with someone there as a guide. That's why I found the sessions so helpful. (F12)*
- *It was good to get extra practice on the application of the ideas and how they worked. What was really good though was being really worried before the tutorial about having fallen behind but turning up and finding that everyone else was in the same boat. (F8)*
- *I couldn't get to all the sessions as the timings just weren't right. That was a shame as the ones I did get to were really useful. I think the OU needs to look at the timings. (F3)*
- *Something that we (the students) spoke about at lunch at a day school was that the whole idea of face to face sessions was really god and really helpful and yet they are an option...you're supposed to be able to the course without any attendance and yet they really made a change to understanding and I think even the exam results...are they optional or compulsory or not.. (M19)*

When the attendance statistics are analysed further, 83% (twenty) of the twenty four males attended all the sessions, whilst only 50% (seven) of the fourteen females were able to do so. Given the high degree of significance students place on the benefit of the sessions, females appear to be further disadvantaged through non-attendance. Of value would be an indication of reasons why females in particular are unable to



attend. Linked to this are views on the content of the sessions.

The twenty eight (74% of 38) reporting the *content of face to face sessions* as being positive appeared through the transcripts to be consistent in their views. Comments with words such as "*...brought the course to life...*", "*...clarified...*", "*...helped me to make sense of it all...*", "*...encouraged me to keep at it...*" reveal satisfaction with the content for many. This is encouraging feedback. However, given that the face to face sessions are not compulsory, the challenge to the course team may well be to ensure that the core textual materials clarify matters appropriately, help students to make sense of it all, and bring the course to life. This may involve more detailed explanation and linking materials more to application in the work place, aspects clearly attended to in the face to face sessions.

An interesting feature of the students' views on face to face sessions is that face to face content comments relate more to quality of teaching rooms and facilities as opposed to the teaching materials.

### **5.2.8 Domestic circumstances**

This represents a major finding and endorses existing literature. Echoing that existing literature, the views expressed related to the demands placed on females, in particular of balancing work/life balance. The majority of males seem unaffected by the potential impact of family and domestic circumstances. Females seem concerned with the generality of family obligations to children and the consequences of finding time to study and attend face to face sessions. This again shows the complexity of inter-relationships between aspects of the course.

### **Comments**

- *Well it didn't really affect me as if I'm honest my wife usually attends to the more immediate needs of the children. That doesn't mean that that's right but that's the arrangement we've come to and it works for us. (M7)*
- *Finding the time to study was really challenging...work, study and three children is a difficult lot to balance. (F2)*
- *Being divorced and a single mother is a nightmare when you have to be able to set aside time for regular study and there were times when I felt guilty about ignoring my children even when they were quite happy with what I was doing. (F7)*
- *Me and my wife are divorced and we have two children, They're with me every other weekend and one evening a week and then I do nothing on studying. At times it impacts but they're my priority. (M16)*

The evidence from the transcripts indicates that for females, the needs of and associated priorities given to family have a significant amount of influence on the ability to participate fully in the study experience. This particularly impacts upon attendance at face to face sessions and finding time for study. Of the ten (26%) of the thirty eight interviewees reporting concerns, eight (being 21% of the thirty eight) are female (being 57% of the fourteen females). These are the same eight females who report challenges in relation to being able to draw upon financial experience. These eight all have children and appear to be endeavouring to balance the challenges of managing work and domestic lives. Four (50%) of the eight females are divorced/single parent mothers and are working out of financial necessity rather than to pursue careers. This may explain the difficulties these particular four face in drawing upon financial experiences at work, reflecting the nature of what could be perceived as low-level administrative jobs. Again, the OU's commitment to equal opportunities may be compromised if the course design does not address such challenges.

Associated with this area, twenty five (66% of thirty eight) interviewees report the *impact upon domestic-related leisure time* as being positive. An examination of the transcripts suggests that this means they are able to organise themselves around the schedule suggested by the B655 course team. However, only three (12%) of the twenty five are female with a number of negative comments being recorded by those females.

### **5.2.9 Level of PC/spread-sheeting ability**

This aspect ranks fifth in the five most significant constructs put forward by students, and thus enters into the key finding league. Two distinct groups emerge: those possessing adequate or good skills, and those with basic or zero skills. The former, perhaps not surprisingly, feel it is an advantage to have such skills. The latter, however, do not see lack of skills as a disadvantage as the course brought them rapidly up to the level required. Twenty eight (74% of thirty eight) report few challenges arising from their level of required PC abilities, although this masks a gender divide.

Males are more likely to possess existing spread sheeting skills with females less likely. Indeed, more than 70% of the twenty four males report good or adequate spread-sheeting skills before the course, with the equivalent female figure being less than 40% of the fourteen females. Eight interviewees (21% of thirty eight) report concerns with the level of required PC abilities, five of whom were females (being 63% of those eight). A probe into the transcripts shows that each of the eight possessed at least some spreadsheet skills when entering the course. When asked about *Unit 5-Making Models*, six admit that their PC skills-related challenges arose

because the unit was the last one in the course and they had slipped in their time-management of the course, resulting in little time to study the materials. Significantly, the five females amongst those eight also reported challenges with their domestic lives.

*PC skills* is an umbrella heading, hiding strengths and weaknesses in certain areas. Whilst all have word processing skills, only fifteen (54%) of the twenty-eight reporting few challenges have the requisite spread-sheeting skills. A probe into the transcripts reveals that the other thirteen (46% of twenty eight) feel that this does not hamper them as they are of the broad opinion that *Unit 5-Making Models* introduces them easily and quickly to an appropriate level of spreadsheet ability to be able to complete the third assignment. An issue for consideration here is the move within OUBS to assume that students enter courses with appropriate PC skills. It may well be appropriate to consider establishing a checklist of required PC skills and allowing students to judge in advance their own level of skills against that list,

### **Comments**

- *I'm quite good anyway at PC stuff. What was good at about the PC stuff was learning how to put my spread sheeting skills to good use by preparing a budget spreadsheet to use at work. (M14)*
- *No, no problems as I use spreadsheets all the time at work anyway. I think I would have been disappointed if they hadn't been part of the course as it's a reality of life these days. (M23)*
- *I thought I was quite good at the start but I really learnt a lot more about the formulas and construction and that was just really good for me at work as I felt my confidence really improved. (F7)*
- *I could do word processing and I was really worried about the spreadsheets bit ...my children do it naturally and hadn't really bothered. It took a bit of effort, longer than I thought in fact but I got there in the end it was really satisfying in the end to do the spreadsheet in the final TMA. (F11)*
- *I was fearful because whilst I could do word processing all I could really do with spreadsheets before the course was enter numbers into boxes. I didn't know how to design them. The last book though was really good at*

*showing you how to do it. I liked the exercises. And the one on working out how much your car cost you for each mile was really useful. I didn't realise it cost me that much. And afterwards I was able to do a good budget spreadsheet which has really helped me at work... ''.* (F8)

The fact that TMA3 requires the construction of a spread-sheet to manage a work-place financial matter requires those with little prior knowledge to acquire appropriate skills before even tackling the assignment.

### **5.2.10 Previous training in/exposure to financial skills/knowledge acquisition**

Little work exists in prior literature regarding this. In this study, it has no great bearing on the course experience. That said, this may relate to the fact that very few had had any previous training. Three participants had undergone formal training with two having studied some accounting and finance post-A Level. These are of the opinion that little advantage emerged from this, given the length of time since study and, in one case, the poor quality of the training. Those with no prior training/exposure were initially fearful but felt they were not disadvantaged.

#### **Comments**

- *I'd been on an in-house training course but that was ages ago and to be honest I'd forgotten most of it. The trainer was useless...bit like a typical accountant really in attitude and communication skills and it all seemed divorced from things I was doing at work. B655 was much more relevant and user-friendly.* (F2)
- *I did it in my IT diploma but that was more as the necessary evil than because I wanted to do. I did it, learnt enough to pass it ...and then in reality forgot it.* (M13)
- *No training anywhere but that was fine...it might have made the course easier but I guess it's a case of not knowing what you don't know.* (F6)
- *They put on courses at work but I've never really been encouraged and I'm always too busy anyway to go. I thought B655 was grand and no I don't think I suffered.* (M22)

The statistics are low and in any event the course material in technical terms is designed to start from an assumption of zero-level knowledge.

### **5.2.11 Design of course materials**

This aspect was included in the original 'top nine' constructs, indicating it was of significance, but emerges as an area of little concern. Indeed, it is, in the main seen as having a positive impact. Rowntree's work considered in chapter 2 most certainly emphasises its significance and thus the literature is endorsed. The design aspect did not make the 'final top five' constructs. This may be because, although deemed important, students were happy with the design. Thirty four (89% of thirty eight) students report the *design of the course materials* as contributing positively to a good study experience, with two (5% of thirty eight) having negative perceptions of the *design of course materials*. As a B655 author and a B655 tutor, I sense that this is certainly the case, even allowing for my own potential bias. A point to reflect upon in relation to this is that OUBS Programmes are endeavouring to move towards standardised styles for all courses within a particular Programme, and it may well be a moot point as to whether any new 'imposed' style is better or, indeed, worse. Little is said by students by way of criticism. It may be, however, that students focus on design in a narrow sense, without recognising that criticisms of other aspects of the experience may potentially impact upon the design in an effort to remedy perceived deficiencies elsewhere. Only three (8% of thirty eight) report issues concerning *content of face to face sessions*. The two students commenting negatively on design felt there were too many components of units, disks, cassettes and other supporting materials. They were, however, unable to provide suggestions for alternatives.

### **5.2.12 Nature of coursework**

As with design, Rowntree has much to say on this as an element of a course. Whilst not perceived by students as being of great significance within their study

experience, it was perceived as a positive factor. The *nature of coursework* aspect was perceived as being positive by twenty nine (75% of thirty eight) interviewees. An examination of the transcripts reveals, however, that there are mixed views regarding each of the three individual pieces of coursework. Of the twenty nine, eighteen (62% of twenty nine) express contentment with all three of the assignments. These eighteen represent only 47% of the total of thirty eight respondents. Of the eleven not expressing contentment with all three, three (27% of eleven) students are concerned with the nature of the first assignment, expecting to see more numbers, and nine (81% of eleven) are of the view that the second assignment on financial statements and ratios would benefit from a focus on the statements and ratios of their own organisations. All twenty nine are satisfied with the nature of the third assignment (blending spreadsheets with financial applications). This reveals an area requiring further consideration regarding the style, nature and utility of assignments.

### **5.3 Contributions of this study to knowledge through a review of chapter 5**

In the introduction to the literature review in chapter 2 it was stated that this study should seek to confirm and/or add to the base of knowledge already in existence. In the discussions in section 5.2 above, links have been made with contradictions, lack of conclusions and gaps identified in the literature review in chapter 2. Accordingly it is appropriate here to build upon those links, to review the extent to which prior findings have been confirmed or questioned, and new insights have been established. This aspect is especially important given the inductive stance adopted within the articulation of the research questions at the start of this study.



Much of the relevant prior research relating to the identification of major determinants, reflected within the six-factor model, upon performance in Accounting studies has been conducted in the USA in particular, with some in South East Asia and the Pacific Rim but relatively little in the UK. Additionally, the research that does exist in this area considers undergraduate study in face-to-face institutions. Little exists in the arena of distance learning mode and even less where the focus is working managers studying open access courses. The considerations in this inquiry have provided new knowledge given the gaps that existed.

The research questions originally detailed in Table 1.4 in chapter 1 are reproduced here:

1. What are the elements with the course design perceived by students as being key components within the student study experience, and requiring successful engagement with?
2. What factors relating to their own characteristics and circumstances do students perceive as providing advantage/disadvantage to them as they endeavour to engage with those elements identified as being key components within the study experience?
3. Are there typologies of characteristics of students which are associated with helping or hindering the study experience and contribute towards higher/lower academic scores?
4. What lessons emerge with regard to improving the student study experience through amendments to the curriculum design, with a view to more successful academic outcomes as evidenced through course scores?

I consider that the questions have been proved to be relevant and appropriate, and in answering them contributions to knowledge and understanding, and to my professional development have been generated. Responses to each question are detailed below.

Regarding Question 1, there are five elements identified by students as being key components within the study experience are E1: Time taken to study materials; E2:

Experience of optional face-to-face sessions; **E3**: Assignments; **E4**: Exam; and **E5**: Overall study experience. The implication of such identification is that curriculum designers should take account of these as they set about designing courses. They do not, however, exist in isolation. They are connected to the factors sought by asking Question 2.

Regarding Question 2, the aspects students perceive as being very significant in engaging successfully with the course are, in rank order; **C1**: Domestic circumstances; **C2**: Length of work experience; **C3**: Degree of financial nature of work; **C4**: Maths Skills; **C5**: PC Skills. Students believe that they must engage with these. Their views on what helps or hinders such engagement must also be known by designers.

In response to Question 3, this study shows how and to what degree the elements and constructs interact. When groupings are linked to academic scores, typologies may be identified. Females score below males and appear to be impacted by a combination of factors. In general, a combination of demanding domestic circumstances and a shorter length of work experience suggest that females will have a less positive experience than males, evidenced in part by lower academic scores. When a lack of financial experience at work and lower confidence regarding maths skills are also combined, these four aspects suggest a marked impact on the experience and lower scores.

A response to Question 4 emerges from the insights into the student experience, provided by the study, as reflected in Table 4.11. Students are content with the overall design and quality of the course materials. That said, they would welcome

better explanation of mathematical calculations in the text (with 18 occurrences in Table 4.11). The AV materials are highly thought of and perhaps it is not surprise that they would welcome more, possibly in place of some text. Significant lessons emerge in the areas outside the core text materials. Students value the face to face sessions but some, particularly females, face challenges in attending what are perceived as being important course components. This is linked to a perception that OUBS does not take into account domestic circumstances in particular. In Table 4.11 there are 17 occurrences of students suggesting that fuller account be taken. Reflecting, perhaps, some of the academic and social integration aspects referred to in the literature review, suggestions are made to providing on-line peer support mechanisms (11 occurrences), and email access to tutors (13 occurrences).

The responses to the questions reflect analyses and findings which, I contend, have added to the existing literature. I expand on this aspect next.

### 5.3.1 A more detailed review

The six factor model cited in much prior research into determinants of academic performance in accounting courses and detailed in Table 2.1 in chapter 2. The factors being *Gender*, *Prior accounting knowledge*, *Academic aptitude*, *Mathematics background*, *Previous working experience*, and *Age*. This study confirms the prior research which suggest the six factors are relevant.

Further illumination has been provided, however. The focus of prior research relating to these factors is on undergraduate accounting courses in non-distance learning modes within accounting degrees, degrees taught in traditional *face to face* modes. Relatively little research exists on Accountancy courses in which the emphasis is on

equipping managers with the knowledge, understanding and skills to better manage budgets and make financial decisions. Additionally, whilst there exists some research on the experiences of adult learners in distance learning contexts it does not focus singularly on Accounting courses. This study goes beyond that base, to show:

- Each factor in the six factor model reflects a degree of significance
- Additional factors are significant
- Significance is derived from empirical analyses and the original six and the additional factors are multi-faceted, with deeper analyses through qualitative-based illumination providing richness and insight.

The richness emerges from interviews concerning student perceptions of what is important to them – elements – within the course, and of the factors and issues – reflected in constructs – which impact upon the elements, contributing towards a good study experience.

This study is significant in that it illustrates how the initial six factor model research appears to suffer from compartmentalisation: considering each factor as a standalone, ignoring the inter-relationships between those factors, other factors, and the consequential layers of complexity that may be hidden beneath the surface. Additionally, based upon the groupings and typologies established, it is clear that of great significance is the clear divide between males and females. The literature associated with gender within the six factor model is contradictory and inconclusive. This study indicates that gender is of significance in the eyes of the students, significance rooted in a range of issues connected with length and type of work experience, domestic circumstances, and confidence in the areas of maths and PC abilities.

Prior literature reviews the impact of prior accounting knowledge, but in the context of academic study. This study as new findings indicates that of greater significance is knowledge and understanding acquired in the work place through the nature and length of experience, suggesting that some advantage is gained over others but more in the context of being able to cope with the time demands of studying B655 than with the academic challenges. Although work experience appears in prior research to be advantageous in accounting degrees, little if any work of substance attempts to relate prior work experience with performance on accounting courses such as B655 designed for working managers. This study shows that those with greater work experience perform better academically. This would appear to be the result of being able to relate the significance of the course content to the workplace. Related to this is the aspect of *Age*. Prior research is inconclusive whereas this study indicates that, at least on the surface, it is significant, but in the context of work experience.

Regarding confidence in maths and PC skills, many prior studies are inconclusive although some later, perhaps better structured ones, show a strong relationship between success on accounting degrees and established mathematical ability. The interviews, whilst revealing initial concerns, indicate that the challenges presented to those fearful of maths and spread-sheeting are of less magnitude than had been anticipated by the students. That said, females reported challenges presented by maths and PC skills in the context of confidence.

Perhaps a major contribution is to be found in the duality of gender and related domestic circumstances; it is clear from this study that the student experience is shaped significantly by such circumstances. Domestic circumstances, particularly for

females and very much less so for males, are influential especially where parenting responsibilities are involved and may have impacts upon the pragmatic approaches to studying to balance the demands on life, particularly in the context of the combination of work and domestic circumstances.

Because of the range of points referred to above, the findings of this study suggest that *Gender* is an issue of great significance. Prior research, in its context of undergraduate, face to face Accounting degrees was inconclusive regarding gender. This study endorses existing literature which suggests that in distance-learning, course design and support systems impact significantly upon the study experience of the female learner. Females are challenged by a number of factors, particularly those concerned with the need to combine domestic roles and parenting with employment responsibilities, all impacting on the time available to study. It is clear that the references referred to in chapter 2 are accurate in that females are challenged by family responsibilities. Additionally, females in this study tended to have less managerial experience and associated budgetary and other financial responsibilities. The study indicates a divide between males and females, providing a platform for further and future work regarding gender issues.

This study reveals that students do not just study for academic success but for additional and/or substitute reasons. Some (79% shown in Table 4.6) have the clear objective of gaining the Certificate in Management and potentially the MBA as symbols of academic achievement. That said, the interviews suggest that this driver subsumes work related reasons within it. The majority are studying for two work related reasons, either as independent reasons or, more commonly, as combined ones. Some study because they feel that obtaining a qualification is important to their

career progression. Others feel that understanding management in general and accounting in particular will help them at work now with the demands of their job and potentially demands associated with career progression. Many see both of these as going hand in hand. As a consequence the percentages detailed in Table 4.6 do not necessarily reveal the reality of student study motivations.

With regard to course design and structure, it become very clear that the work of Rowntree referred to in chapter 2 is very significant. Rowntree stresses as a generality the need to produce an overall student experience which is conducive to success and as a consequence the totality of the curriculum design – the course and all its facets – is what is important. Whilst making some specific suggestions, most students seem relatively content with the physical design and structure of the text. What this study reveals is that where there are student concerns they are linked to the fact that B655 is essentially producer-centred when, as Rowntree suggests, it should be student-centred. This involves finding out about the needs, expectations and circumstances of learners prior to and during the course delivery. This study has made a major step forward in doing just that: finding out about the student experience and using those findings to inform the design of improvements to the curriculum design.

## Chapter 6

### Conclusions

#### **Introduction**

In this chapter I draw conclusions as I place the discussions and outputs from chapter 5 in two contexts: implications for the curriculum design of B655 (and potentially other similar distance learning accounting courses), and future paths for further research relating to the outputs from this study. Their combination connects back to the drivers for this enquiry, drivers relating to professional development. Before final conclusions are drawn, a caveat should be signalled, a caveat concerning a technology-related context

#### **6.1 Change in the context of a technology-related caveat**

The outputs of chapter 5 suggest that the student study experience would be enhanced by a range of support mechanisms in a number of areas, particularly in the context of female distance learners. The reality may, however, prove challenging. This is not solely because of the inherent challenges associated with negotiating and implementing change. Here, there is a specific context, associated with on-line support. In the online context, much research exists examining the benefits and disadvantages for students. Mangan (2001) in a study of on-line MBA programmes, notes how learners in general have been somewhat disappointed by the cited benefits, feeling their study experience at best, does not improve. Huang (2002) suggests that,



in essence, constructivism by students is more challenging for some in online learning. Tait (2000) warns that endeavouring to ‘be all things to all people’ is virtually impossible. The challenges to those responsible for curriculum design would thus appear to be great. Indeed, there is potential scope for on-line matters being attended in a separate future study.

## **6.1 Potential changes to the course design**

The analyses in chapter 4, taken in the context of the discussions in chapter 5, suggest a number of potential amendments to the B655 curriculum. These are identified and considered next. My observations, considerations and reflections have resulted in the identification of a number of potential changes to B655. These reflect the issues raised by students, captured in chapter 4. Such potential changes are just that, potential, and at some stage a more formal assessment of their feasibility and likely contribution to the student experience would need to be undertaken.

### **6.2.1 Changes associated with the circumstances and characteristics perceived as being most influential on the study experience**

The identification of typologies in chapter 5 suggests that the five most influential sets of circumstances and characteristics are C1: *Domestic circumstances*; C2: *Length of work experience*; C3: *Degree of financial nature of work*; C4: *Maths Skills*; C5: *PC Skills*. Potential changes relating to each are considered in turn.

#### **C1: Domestic circumstances**

It may prove possible to lessen the impact upon domestic-related/leisure time via amendments to the design of text materials and the arrangements for face to face

sessions. It may prove possible to re-design text units into 'one hour study chunks', and/or offering more flexible schedules and timings of face to face sessions. Text materials are already divided into relatively discrete units and amendments should be readily achievable. The OU's cadre of experts who concern themselves with the technology of design would be able to offer valuable insights in this area. In theory, offering face to face sessions on a number of different days across, say, a fortnight would be easily scheduled, subject to the availability of rooms/locations and tutors. In practical terms, such a move would mean that students allocated to one tutor group might well mix with students from other tutor groups which might bring advantages (e.g. wider sharing of experiences) and disadvantages (e.g. potentially changing established tutor group dynamics). Regional offices would have to be involved in the setting up process and would comment on potential additional administrative support. Changes of these natures would potentially help those learners, particularly females, by providing flexibility. Regarding 'one hour study chunks', those with busy and challenging domestic lives might be able to better organise their studies in a more pragmatic manner. The re-organisation of schedules for face to face sessions would enable those with domestic responsibilities to select times/dates which fitted in with their schedules rather than with the OU's. This would, again, benefit female learners in particular.

### **C2 and C3: Length of and financial experience at work**

It is apparent that the length of work experience is of significance to students as they study. This is compounded by the nature of any financial elements within their work, with challenges for those with little of no such elements. The data collected and analysed indicates that female learners are faced with challenges in these areas. Many are 'returners to work', having interrupted work for family-related reasons.

Their career progression seems subsequently to be impeded. Career progression is invariably accompanied by greater financial responsibility at work, not least in the context of becoming budget holders. For those with long work and/or financial experiences, their experience could be put to good use through appropriate in-text activities. That would improve their study experience. However, this is potentially problematic in that whilst those with work/financial experience would in all probability welcome such activities, those with little or no experience would be excluded. This might disadvantage particularly some female learners. The problems could be overcome by providing appropriate wording of activities, wording which encourages students to suggest how particular financial issues might be dealt with in the workplace, with clear follow-up explanations. It would be incumbent upon the course team to ensure that full explanation is given to such students as they are guided through such activities. This is achievable in that a number of existing in-text activities already exist but are of a self-reflective nature with no clear answers, students being left to draw their own conclusions. Follow-up explanations could be easily provided. These would help in providing a more positive experience for those worried by maths skills.

#### **C4: Maths ability**

It would seem appropriate to consider how to lessen challenges to those facing difficulties related to the required level of Maths ability, possibly through the provision of 'help desk' text unit, perhaps printed, perhaps electronic, and/or explanatory calculations as margin notes. The provision of a printed 'help desk' text unit would add extra print cost and would be costly and time-consuming to amend and update, but would have the advantage of being readily available to the student as and when required. An electronic version would cut down on print cost, be easily

updated and amended but would not be readily available without a PC. In contrast, margin notes would provide immediate explanation at little extra cost. This move would advantage anybody challenged by maths, not necessarily only female learners.

#### **C5: PC Skills**

This construct is ranked fifth and in light of the positive views expressed by students, the challenge is not so much to change, but, rather to improve even further. The existing PC skills development materials should be retained as they receive excellent assessments by the students. It might well be that further advantage might be gained by the incorporation of software to apply principles for bookkeeping, budgetary statements, and ratio analysis (amongst other areas). It may well be possible to include aspects such as automatic assessment of short test questions followed by automatic provision of answers/explanations.

#### **6.2.2 Changes associated with producing course materials which have more meaning for students**

The interviews indicate that a challenge facing many is that of pre-conceived fears associated with the image of accounting and finance. Potentially the study experience could be improved for all by the inclusion of mechanisms to help students to locate themselves in the nature of the course. Such location might involve a) demonstrating the relevance of matters financial to students' working lives, and b) presentation of materials, particularly financial reporting, cost and budget statements, in engaging ways. Key areas here may include the relevance of the content of the text units, the content of face to face sessions, the nature of coursework assignments, and the layout of the design of text units.

Improving the layout of the design of course materials could, as indicated above, include the use of the 'one hour study chunks' approach. It may be that authors might identify through the use of pilot teams of 'quasi-students' areas students may be challenged by. As a response increased use of the provision of explanations and cross-referencing in the margins of the text units may be appropriate.

Improving the relevance of the course content might be achieved through a mechanism of a student learning log. This would encourage an independent and reflective approach to learning and development which will be sustainable beyond the programme of study, particularly important in the contexts of vocational application of learning and skills, and potential later study of more advanced accounting and finance courses. A learning log/diary would allow students to record learning experiences, with a view to providing evidence for what was studied, and to help them in thinking about and reflecting upon learning points. This is achievable through the inclusion of a learning log which students would complete at strategic points through the course. Such points might be after the completion of studying major sections within the text units, after feedback from tutors on coursework and after any attendance at face to face sessions, culminating in a final assessment/conclusion at the end of the course

Content of face to face sessions might be enhanced through the inclusion of, for example, real world illustrations of a number of financial aspects. For example, how budget sheets are used by managers in organisations, and how different organisations respond to the challenges of cost determination, and using ratios to analyse the financial performance of well known organisations. Students who are budget holders should be encouraged to bring copies of budget feedback sheets to sessions to be

used as illustrations of how the theory described in course units is applied. Students may forget to bring copies or may choose not to and thus the tutor may need to be provided with core copies of sample statements, perhaps based on OU specific feedback sheets. The calculation of ratios for well known organisations would bring reality to the course, with such organisations being drawn from the private, public and voluntary sectors to reflect student work profiles. Any calculations would need to be well explained with sign posting to the source of financial figures within the organisations' financial statements.

The relevance of the coursework could be improved through amendments to TMA 2, changing its nature from a generic ratios-related exercise to the measurement of the financial performance of the student's own organisation. In principle this is an excellent idea. It would accentuate the relevance of the course ideas in this area. That said, each set of calculations would differ, and it would not be possible to provide tutors with set answers to the organisations used. Tutors would have to calculate up to fifteen sets of answers and would 'not be happy'. It may be appropriate to ask students to calculate ratios for one organisation drawn from three within the private, public and voluntary sector, related to the individual student's background. Thereafter, students could be asked to reflect upon actions that managers in their own organisations would need to apply to improve key ratios. This would require the course team in providing three sets of answers for tutors and tutors not having to check up to fifteen sets of organisation-specific calculations.

In assessing the impact of such amendments, a pilot study would need to be undertaken. This could involve a group of past and potential B655 students and tutors testing the proposed amendments and providing feedback. In an ideal world

this would take place within this study. However, permission would be required from the OU. This would take time – past experience indicates up to six months to obtain such permission and a further six to nine months for implementation and analysis of feedback..

### **6.3 Final thoughts and next steps**

As final thoughts, it is clear that this study is limited in the scope of the number of students involved and the consequential limitations on the ability to generalise findings. Additionally, the students are all drawn from cohorts taught by myself in the London region. The students in this study represent a particular cluster. It may well be, however, that this cluster is not typical of the course population at large. This has implications for the sample size, the representativeness and parameters of the sample, access to the sample, and the associated sampling strategy to be used. Where there is heterogeneity in the student population, a larger sample must be selected on a basis that respects that heterogeneity. Additionally, other tutors may have teaching/engagement skills which differ from mine. It would be appropriate at some stage in the future to replicate this study but across a number of cohorts of students taught by other tutors and drawn from other parts of the UK, and indeed the wider Europe. This may go some way towards meeting Guba and Lincoln's notion of trustworthiness with qualitative studies. The Furthermore, it may well be that subsequently, subject to ethical considerations, some research could be undertaken as students engage with their studies, rather than after study has been completed. In such a circumstance, it may be that the use of learning logs could become a vital ingredient.

The above points are generic in that they relate to all students. In this study, a particular finding is that female learners appear to be disadvantaged by domestic circumstances and/or work-related challenges connected to length of work experience/financial nature of work. The suggestion from this study is that the disadvantages are such that females are impacted significantly enough to a) reduce the positive aspects of their study experience and b) reduce the academic score obtained. Of further merit would be a study identifying the specific challenges facing females, and the degree to which each challenge impacts upon their study experience. An area requiring investigation might be how females organise - or are unable to, their domestic lives to find time for meaningful course study. Additionally, specific ratings of various components of course content in the context of relevance to the nature of their employment would provide insight into the nature of their study experience, adding richness and indicating additional areas of potential improvement by course designers. Underpinning, or indeed overlaying, this study are potential challenges presented by matters connected with socio-economic issues and/or ethnicity. As gender has emerged as a key area of significance within the study, it would be appropriate in a further study to identify the factors associated with gender and map those onto the reality of the lives of female distance learners.

The drivers for this and any subsequent research continue: the improvement of the student experience and improved learning. In chapter 1 I point out that in the introduction to the course on a DVD segment, I assure students that they will not have to worry about the challenges associated with gaining and acquiring the required knowledge, understanding and skills. I look directly at the camera, and thus at the student, and state categorically: *That's a promise*. The drivers for that promise remain, and should be at the heart of the educator's passion.





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# Appendix A

# **Introduction and Study Guide**

*Prepared for the Course Team by Alan Parkinson*

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## **Appendix    The Audio and Video Cassettes and PC Activities**

# 1 Introduction to the Course

## 1.1 The aims of the course

### **Welcome to B655, *Accounting for Managers*.**

This Introduction and Study Guide is the first part of a set of materials designed to help you become a more effective manager through better understanding, use and management of financial information.

You have already watched (or should have done!) the first video sequence, 'Looking Ahead'. The Introduction and Study Guide builds upon that video sequence by providing further detail about what lies ahead for you.

If you have not yet watched the first video sequence, 'Looking Ahead', you should do so now. It's on the video cassette included with the course material. It's the very first sequence and lasts for about ten minutes. When you have finished watching it, return to this Introduction and Study Guide. Do keep the video cassette in your video player, however. As soon as you finish this Guide you will be asked to watch the second video sequence 'Accounting for What?'

You should now work your way through this Guide. By the end of it you will have a general picture of B655 and understand the nature, purpose, content and shape of the course.

The central aim of this course is to help you to make better management decisions by improving your understanding and use of financial information. In addition, the course stresses the benefits of using a PC to manage financial information. To achieve this the course includes material and activities to develop your personal computing skills, not least in the area of spreadsheeting. The course thus interweaves a financial component and a personal computing component.

To make the best possible decisions you need the best financial information that is available and the competence to use it to the full. You naturally turn to your accountants for much of your information, but your job as a manager is not made easier by the accountant's use of professional jargon: accountants have their own language and culture just like many other professional groups. You may also, like many managers, find the prospect of working with, and applying, accounting information daunting.

### ***The financial component***

This course will help you to overcome difficulties with jargon and lessen the problems of communication with accountants and financial managers. It should give you the understanding and confidence to assess the significance of accounting information, and help you to identify what financial information would be valuable when making decisions.

Whether you can use financial information effectively will largely depend on your abilities, skills, training and experience. We aim to give you the necessary training and, through practice, the experience to apply this information. The course will help you to understand the language, customs and practice of the financial community. You will soon understand what balance sheets, profit and loss accounts and cash flow statements

are all about. In addition you'll be able to establish the costs of your products or services, and construct and use budgets for planning and control purposes.

### *The computing component*

Many managers now regularly use the PC in their working environments. The PC is used in the accounting environment too, and this course is designed to help you use the PC.

### *Aims and objectives*

The main aims of the course may be summarised as follows:

- to describe the formal concepts, principles and conventions employed in financial accounting, costing and budgeting
- to give you practice and confidence in the application of these to decisions typical of those facing managers in their daily work
- to give you practice and confidence in 'hands-on' use of a PC for building and using relevant financial models.

### **Regarding specific objectives, by the end of the course you will:**

- understand the customs and practice of accountants in the preparation of financial statements such as profit and income and expenditure statements, cash flow statements, balance sheets, cost statements and budgets
- be able to construct simple versions of the statements listed above
- be able to establish the costs of your products/services, whether you work in a commercial enterprise or voluntary or public sector one
- understand how line managers and senior management set about measuring your performance
- be able to negotiate for resources to achieve objectives and construct and manage a budget
- be able to assess the relevance and significance of financial information to a range of decision making scenarios
- be able to use a PC for building and using simple financial models.

## **1.2 The course materials**

There are five core books in this course. Their titles are:

**Unit 1 First Ideas**

**Unit 2 Financial Frameworks**

**Unit 3 Counting the Costs**

**Unit 4 Balancing the Budget**

**Unit 5 Making Models**

These core books contain the essence of the course.

While working through this course you are strongly encouraged to relate the material to your experience of managing. The units are divided into convenient study

sessions, and they are liberally scattered with exercises (called Activities) and ideas for the workplace.

Three video cassettes and two audio cassettes are provided, and you are prompted, by an appropriate symbol in the margin of the books, to leave the printed materials and to turn to the audio or video material. The audio-visual material is supported by the Audio-Visual Activities Workbook. The AV Activities are an integral part of the course and you ignore them at your peril. The detailed contents of the cassettes are listed in the Appendix at the back of this Guide.

There is also a PC disk provided. This is supported by a PC Activities Workbook, and you'll soon discover that these PC Activities are also an integral part of the course. The PC Activities are listed in the Appendix at the back of this Guide.

*There is a Supplementary File in the ring binder which is provided so that you may collate the other printed course materials supplied in loose-leaf form and any working notes you record as you progress through the course. The lower part of the spine of the Supplementary File is designed to bend backwards to enable the binder to stand up without additional support, and you will find this a convenience when working at the computer.*

The other course materials include:

- a Course Calendar
- a Tutor-marked Assignment Booklet
- a Glossary of Accountancy Terms
- a Specimen Exam Paper, Suggested Answers Booklet and two actual past papers.

The calendar is the key document for pacing your work during the course and you should always attempt to complete the various parts of the course by the given dates.

You will, if you are able to attend the tutorials and day schools offered, receive tutorial and day-school material from your tutor. If you are unable to attend, or for some reason tutorials or day schools are not offered, your tutor will mail the material to you upon request. This material, too, can be filed in your Supplementary File.

### ***Computer hardware and software***

When you read the course prospectus you were made aware that you would require access to suitable computer hardware and software in order to complete the course. It is your responsibility to have arranged this. You should have organised suitable access to a PC and appropriate software before the start of the course, and we regret that failure to have done so may not be considered an adequate reason for delays in completing the study materials or in submitting assignments. If you have not yet completed the arrangements for obtaining access to hardware and software then you should treat this as an urgent matter.

### ***1.3 Course overview***

The following course overview may include descriptions of some terms which are new to you. You are not expected to learn any unfamiliar terms at this point, but rather to grasp the structure of the course.

There are essentially two types of accounts, known as financial accounts and management accounts, although management accounting and financial accounting are complementary activities. In a smaller organisation, financial accounting and management accounting may be carried out by the same accountant or accounting department and, consequently, the distinction between them may be blurred. However, in most larger organisations a clear distinction will be drawn between the two functions and each will be handled by different accountants or accounting departments. There are further accounting specialities, such as auditing or taxation, but since the course is directed at managers rather than budding accountants we will not be dealing with those functions.

*Financial accounting* is principally concerned with reporting summaries of financial information which show the owners and fund providers of an organisation how it has performed in the recent past. It is about measuring and recording the financial resources and performance of an enterprise whether in the public or the private sector. This information is required mainly by the shareholders and/or investors, as well as banks, creditors, customers and other individuals and organisations outside the business, but the information is obviously valuable to senior management.

*Management accounting*, by contrast, is essentially an internal financial service to management. Its main aim is to provide financial information that will facilitate planning for the future and ensure efficient control of activities while the plans are being carried out. Management accounting is much more wide-ranging in its scope than financial accounting; its boundaries are less clearly defined, and vary from organisation to organisation. The task of the management accountant extends to the design and implementation of systems that collect, classify and distribute financial and other information. As information technology (IT) improves the capabilities of such systems, individual managers are potentially better able to plan and control their own activities within a coherent organisation-wide framework.

## **The core materials**

### ***Unit 1 First Ideas***

...illustrates and explains why an understanding of financial matters is essential for you as a manager. It introduces the concept of the cycle of production with you, as a manager, being responsible for resources and the conversion of such resources (inputs) into goods or services (outputs). It details a range of management tasks which most managers are concerned with and introduces financial ideas which can help in managing the tasks effectively. These ideas are revisited and developed later in the course. The book builds upon a video sequence, 'Accounting for What?', and makes use of an audio segment, 'Accounting for Managers – the Practice'.

Unit 1 also introduces you to the PC, if you need an introduction to word-processing skills. This is achieved by directing you out to the PC Activities Book.

The final section of Unit 1 enables you to place all these ideas into the context of your own work and the objectives of the course.

### ***Unit 2 Financial Frameworks***

...provides you with an understanding of common financial statements and the underlying theory and approaches to their construction as practised by accountants and others in the financial community. It looks at the strengths and weaknesses of financial statements, particularly with regard to the financial valuation of the inputs and outputs introduced in Unit 1.



The unit focuses on the construction and use of cash flow statements, operating statements (such as profit and loss accounts and income and expenditure accounts) and balance sheets. In exploring these statements a practical examination of the management of working capital is conducted together with an introduction to the use by management of simple financial ratios.

The book draws upon an audio segment, 'Managing Working Capital', a video sequence, 'Treats in Store', and PC Activities to illustrate some of these ideas.

### ***Unit 3 Counting the Costs***

...explores what is meant by the term 'costs' and why it is important to understand how we set about establishing the costs of goods and services. It examines the practices (there is more than one!) used by the financial community to establish costs, focusing particularly on what are known as the absorption, contribution/marginal and activity-based costing approaches. The costing principles established are reviewed in relation to changing levels of activity, opportunity costs, and planning in the areas of break-even analysis and the management of scarce resources.

The unit again draws upon PC Activities to illustrate and reinforce costing principles. It also involves two video sequences, 'Counting Costs' and 'Breaking Even', and an audio segment, 'Counting More Costs', which builds upon the 'Counting Costs' video sequence.

### ***Unit 4 Balancing the Budget***

...explores the use (and abuse!) of budgets, approaches to setting budgets and how they are used to monitor and control management activities. The unit focuses in particular on the involvement of people in the setting and implementation of budgets, given the fact that it is people who make the decisions and undertake the activities – and it is activities which cost. This book will be particularly relevant to you since all managers are either budget holders or part of the budget for which their line managers are responsible.

Unit 4 finishes with an examination of the calculation and interpretation of performance measures and financial ratios, answering the question 'How do we know how well we have done?'

Full use is made of PC Activities and two video sequences, 'Budgets and Blueprints' and 'Reading the Runes'. An audio segment, 'Reading More Runes', continues a ratio calculation and interpretation exercise started in 'Reading the Runes'.

### ***Unit 5 Making Models***

...illustrates how financial models, combining financial knowledge and spreadsheeting skills, may be used to achieve effective management of financial information. By the end of the unit you will be able to develop and use your own financial model to help manage a work-based situation more effectively. This will normally take the form of a budget.

If you are not yet able to spreadsheet the book will direct you out to the PC Activities Workbook and soon there will be no stopping you!

The unit makes use of a video sequence, 'Making Models Work'. Please note that you will require access to a PC throughout Unit 5.

### **Resources (supplementary materials)**

In addition to the Introduction and Study Guide and the five core books there is additional material of a resource nature, to be referred to as required and/or directed.

This resource material comprises an Audio-Visual (AV) Activities Workbook, with its accompanying video and audio cassettes, and a PC (personal computing) Activities Workbook, including software.

#### *The Audio-Visual Activities Workbook*

...supports the audio-visual material in the course, introducing the scenarios and detailing your objectives and their related tasks. The AV material is designed to show how financial ideas are applied in practice. Organisations visited include the retailer Marks and Spencer p.l.c., the financial services provider Hill Samuel (Jersey) Limited, and RTE in Dublin, the Irish TV and radio production and broadcasting corporation. Visits are also made to a public sector leisure centre, a voluntary sector hostel, a small motor vehicle component business and a print technology firm in the Netherlands. You will also visit two firms created especially for this course, Treats, a sweet shop, and Cheapo Limited, manufacturers of exclusive furniture.

#### *The PC Activities Workbook*

We refer you to the PC Activities Workbook whenever you are required to use your PC. It introduces a fictitious management development organisation, the Personal Development Association (PDA), which is visited at strategic points throughout the course material. There are a number of Activities related to PDA which offer you an opportunity to explore how the PDA management team uses the financial ideas discussed in the texts. This workbook also helps you to acquire word-processing skills and simple spreadsheeting skills. There is also a glossary of computer terms.

### **Computing**

The use of a PC is an integral part of the course, so access to a PC is essential. You may wish to use one you already own, purchase a new one, or use one in your place of work. If you do use one at work please remember to seek authorisation from an appropriate authority. If you are purchasing a machine, now or in the future, we recommend that you buy one using a Windows operating system.

The course material includes a number of PC Activities on a pre-prepared disk. This is supplied in a 3.5 inch version and runs under the OUBS's recommended software, Microsoft Excel 4 or higher, via Windows 95 or higher.

You are responsible for providing access to your own PC hardware and software operating system. The OUBS Customer Service Centre (Telephone 01908 652143 from within the UK and UK Code -1908-652143 from outside) can provide details of low-cost purchase schemes for Microsoft software.

It is assumed that most students will choose to use the appropriate version of Excel and those who do will have access to an OU PC telephone helpline. No guarantee can be given that the course disks will run under other operating systems such as Lotus 1-2-3, etc. At present the course disks are not available in Apple Mac format. The PC Starter Pack contains further information regarding recommended PC related specifications.

All OUBS discs are guaranteed virus-free. There is a letter with the material you received: show it to your employer or colleagues if you intend to use their machine(s).

## 2 Study Guide

### 2.1 *Planning your study*

To manage your study time effectively, you will need to understand how the various course materials interrelate. You should note that the Course Calendar suggests the dates at which you should *commence* the study of individual books. It also specifies the dates by which you should submit your Tutor-marked Assignments to your tutor for assessment and feedback.

Each book is divided into convenient study sessions to help break up the overall study time of about 110 hours. On average, a study session will require around two hours to complete, but some will take much less time and others considerably longer. The time required for most study sessions will depend upon the individual as much as the content of the session. For most sessions you will require one of the core units together with the AV Activities and/or PC Activities Workbooks. You should look through an individual session before commencing your study of it to establish whether you need access to a PC, VCR or audio cassette player. The Appendix at the back of this Guide also lists the AV and PC Activities with their corresponding study sessions.

If you registered early, then you will have received your study materials in advance of the start date of the course, and you may choose to begin your study straightaway.

### 2.2 *Tuition*

You will receive an introductory letter from a tutor assigned to you by your Regional Centre, giving the tutor's name, address and telephone number. Your tutor will be able to provide you with help and support by correspondence, and by telephone at reasonable hours, while you master the course materials.

You may have the opportunity to attend tutorial sessions at which you will meet your tutor and other students. You will find that these tutorials are invaluable if you go prepared to share your experience, problems and achievements in a constructive manner. You are not assessed in these sessions and there is no compulsion to attend. However, if you are able to attend the first tutorial, you will find it much easier to become involved or to start a self-help study group with other students who share your needs and outlook.

This course requires regular and sustained study and so there is a generous provision of tutorials and day schools. The arrangements for these are the responsibility of regional staff who will send you a list of tutorial and day school dates at the start of the course. There are variations in the patterns of provision which reflect local circumstances, but a typical schedule would include four tutorial sessions of two hours each and two day-school sessions of five hours each. Unfortunately, it is not practical to organise face-to-face tutorials in some parts of the UK and some other parts of Europe where travelling distances are too great. If this impacts on you, don't worry. The course material in your pack is designed to act as a 'stand alone'. It delivers *more* than you need to know!

### 2.3 *Computing support*

Your tutor and the helpdesk at the Academic Computing Service (ACS) of the Open University will be able to help with problems that arise as you work through the PC Activities, provided that you have installed the recommended software on a PC which conforms to the Open University Business School hardware specifications.

The helpdesk telephone numbers are given at the start of the PC Activities Workbook.

If you believe that you already have some command of personal computing and you have access to software and hardware which does not conform to the recommended specifications for this course, you will have to make a difficult choice. You may choose to obtain access to the approved hardware and recommended software, and follow the course materials more quickly, in all probability, than other students new to computing. Alternatively, if you do not use the recommended software on an approved PC, you should check whether your existing level of competence is in fact adequate to complete the course, by reading through the books and the Tutor-marked Assignment questions.

*NOTE: You will not qualify for tutor support for resolving computer problems, nor for the use of the ACS helpdesk, if you do not use the recommended software.*

## **2.4 Assessment**

Where they are available, attendance at the face-to-face tutorial groups and at the day schools is to be strongly recommended, but it is not compulsory and it does not affect the assessment of your performance on the course in any way: neither does your use of the ACS helpdesk.

There are, however, two types of formal assessment, tutor-marked assignments and the examination.

### *Tutor-marked assignments*

You should aim to complete the three tutor-marked assignments (TMAs) in the Assignment Booklet. The TMAs are designed to test your level of competence – that is, to allow you to demonstrate your knowledge, skills and accomplishments which relate to the course. For example, some parts of the TMAs will require you to use the PC. Each assignment should take up to five hours to complete, and you should send it to your tutor for comment. Further details about the TMAs, and the dates by which they should reach your tutor, are shown in the Assignment Booklet. The three TMAs together carry a weighting of 50% towards the overall assessment of your performance on the course, and it is not possible to pass the course without achieving a certain minimum aggregate TMA mark.

### *The examination*

The second part of the formal assessment procedure involves a written examination. With the sole exception that 'hands-on' personal computing competences cannot be examined for obvious practical reasons, the written examination will involve answering questions similar to those which you will have already tackled in the Activities and TMAs. The examination score carries a weighting of 50% towards the overall assessment of your performance on the course, and it is not possible to pass the course without achieving a certain minimum mark in the examination. A Specimen Examination Paper (SEP) with suggested answers is included in the course materials. The suggested answers to the SEP cover the essential points for a good answer, although you may include additional material for a fuller answer to gain more marks. The questions on the unseen examination paper at the end of the course will offer a similar range of choice to the SEP and are designed to allow you to demonstrate what you know, not to trip you up or to act in any way as a barrier to your continued progress. Of course, the topics selected for examination may vary

from one examination to the next. There are two additional past B655 examination papers included to illustrate a range of questions. Your tutor may draw upon these for reference as appropriate.

Turn now to your AV Activities Workbook and undertake AV Activity 2.

When you have completed this Activity, begin your study of Unit 1.

## **Appendix: The Audio and Video Cassettes and PC Activities**

Remember as you view or listen to the AV materials you will need access to the AV Activities Workbook. A full listing of the audio-visual materials is detailed in Table 1.

**Table 1 Audio-visual course materials**

<i>Number</i>	<i>Video/Audio</i>	<i>Title</i>	<i>Location</i>
1	<b>'Real World'</b> <i>video sequence 1</i>	Looking Ahead	Course Chair's introductory letter
2	<b>'Key Ideas'</b> <i>video sequence 1</i>	<b>First Ideas: Understanding the Accounting Process</b>	Unit 1 Session 2
3	<i>Audio segment 1 (Audio cassette 1, side 1)</i>	<b>Accounting for Managers – the Practice</b>	Unit 1 Session 3
4	<b>'Real World'</b> <i>video sequence 2</i>	<b>Accounting for What?</b>	Unit 1 Session 3
5	<b>'Key Ideas'</b> <i>video sequence 2</i>	<b>Financial Frameworks for Financial Statements</b>	Unit 2 Session 1
6	<i>Audio segment 2 (Audio cassette 1, side 2)</i>	<b>Managing Working Capital</b>	Unit 2 Session 2
7	<b>'Real World'</b> <i>video sequence 3</i>	<b>Treats in Store</b>	Unit 2 Session 3
8	<b>'Real World'</b> <i>video sequence 4</i>	<b>Counting Costs</b>	Unit 3 Session 1
9	<b>'Real World'</b> <i>video sequence 5</i>	<b>Breaking Even</b>	Unit 3 Session 2
10	<i>Audio segment 3 (Audio cassette 2, side 1)</i>	<b>Counting More Costs</b>	Unit 3 Session 2
11	<b>'Key Ideas'</b> <i>video sequence 3</i>	<b>[Capturing] Costs</b>	Unit 3 Session 3
12	<b>'Key Ideas'</b> <i>video sequence 4</i>	<b>Balancing the Budget</b>	Unit 4 Session 2
13	<b>'Real World'</b> <i>video sequence 6</i>	<b>Budgets and Blueprints</b>	Unit 4 Session 2
14	<b>'Real World'</b> <i>video sequence 7</i>	<b>Reading the Runes</b>	Unit 4 Session 3

15	<i>Audio segment 4 (Audio cassette 2, side 2)</i>	Reading More Runes	Unit 4 Session 3
16	<i>'Key Ideas' video sequence 5</i>	Rationalising Ratios	Unit 4 Session 3
17	<i>'Real World' video sequence 8</i>	Making Models Work	Unit 5 Session 2

**Table 2 PC Activities**

<i>Number</i>	<i>Location</i>	<i>Title</i>
1	<i>Unit 1 Session 3</i>	Understanding the PC – a diagnostic test
2	<i>Unit 1 Session 3</i>	Establishing your word-processing skills
3	<i>Unit 2 Session 1</i>	Monitoring cash flow – the impact of debtors (PDAONE)
4	<i>Unit 2 Session 1</i>	Monitoring cash flow – the impact of debtors and creditors (PDATWO)
5	<i>Unit 2 Session 3</i>	Understanding the balance sheet (PDATHREE)
6	<i>Unit 2 Session 3</i>	Exploring stock holding (PDAFOUR)
7	<i>Unit 3 Session 1</i>	Absorption costing – a cautionary tale (PDAFIVE)
8	<i>Unit 3 Session 2</i>	Marginal costing – a contrasting tale (PDASIX)
9	<i>Unit 3 Session 2</i>	Clearing the hurdle (PDASEVEN)
10	<i>Unit 4 Session 2</i>	Managing flexible budgets (PDAEIGHT)
11	<i>Unit 4 Session 3</i>	Reading ratios (PDANINE)

## **Appendix B**

## APPENDIX B

### A template for the core design, implementation, analysis and dissemination of this study

	<i>Notes</i>
<b>Research into and consideration of design issues</b>	<i>Takes account of feedback obtained from peers when presenting about:: &gt; the IFS at the British Accounting Association Conference, Glasgow, May 2002 &gt; initial design thoughts for the dissertation at the IOE Summer Doctoral Conference, June 2004</i>
<b>Confirmation of design by author</b>	<i>To take account of literature research undertaken by author and agreed with supervisor</i>
<b>Contact with potential respondents and arrangements made for pilot interviews</b>	<i>Via email and/pr phone, with follow up letter</i>
<b>Pilot interviews undertaken</b>	<i>At interviewees' work locations or other location of their preference, using tape recorder</i>
<b>Pilot interviews reviewed and any amendments made to interview schedule</b>	<i>Undertaken by hand by author to ensure no nuances are missed</i>
<b>Other interviews conducted</b>	<i>At interviewees' work locations or other location of their preference, using tape recorder</i>
<b>Transcription of interview data</b>	<i>Intention to use computer software from OUBS</i>
<b>Analysis of transcriptions and establishment of conclusions</b>	<i>Undertaken using content analysis</i>
<b>Writing up of dissertation and final publication within IOE Edd process</b>	<i>Draft materials reviewed on an ongoing basis and allowing a further provision of 6 to 12 months for amendments and delays</i>



## **APPENDIX C**

### **Illustration of calculations/workings for means contained in Figures 4.3 and 4.4**

The tables below show for males, and females respectively, the total of the ranking scores assigned during Section G of each interview, ranking based on 1-7. For example, for males, the total mean assigned in relation to the impact of C1 (Domestic circumstances) upon E2 (Experience of optional face-to-face sessions) is 28.8. When divided by the number of males ( $n = 24$ ) the mean score of 1.2 is shown in the intersection between C1 and E2 in Figure 4.3 in Section 4. For females, the total mean assigned in relation to the impact of C1 (Domestic circumstances) upon E2 (Experience of optional face-to-face sessions) is 74.2. When divided by the number of females ( $n = 14$ ) the mean score of 5.3 is shown in the inter-section between C1 and E2 in Figure 4.4 in Section 4. These means suggest that females feel that their domestic circumstances impact more negatively/less positively upon the experience of face to face sessions than males. The context of the interview transcripts indicates that this may be the result of females being unable to attend the sessions in light of domestic circumstances. Thereafter, the medians have been entered.

*Tables shown on next page.*

						<b>Median</b>
<b>Males Scores</b>						
	<b>E1</b>	<b>E2</b>	<b>E3</b>	<b>E4</b>	<b>E5</b>	
<b>C1</b>	50.4	28.8	52.8	40.8	50.4	
<b>C2</b>	64.8	62.4	43.2	129.6	60	
<b>C3</b>	98.4	45.6	50.4	93.6	52.8	
<b>C4</b>	28.8	50.4	45.6	43.2	50.4	
<b>C5</b>	31.2	52.8	100.8	45.6	48	
<b>C6</b>	36	50.4	45.6	52.8	43.2	
<b>C7</b>	50.4	144	55.2	74.4	33.6	
<b>C8</b>	100.8	129.6	72	50.4	57.6	
<b>C9</b>	50.4	74.4	115.2	91.2	69.6	

						<b>Median</b>
<b>Females Scores</b>						
	<b>E1</b>	<b>E2</b>	<b>E3</b>	<b>E4</b>	<b>E5</b>	
<b>C1</b>	60.2	74.2	71.4	74.2	85.4	
<b>C2</b>	58.8	65.8	72.8	71.4	75.6	
<b>C3</b>	78.4	74.2	82.6	81.2	85.4	
<b>C4</b>	72.8	61.6	71.4	74.2	75.6	
<b>C5</b>	74.2	57.4	78.4	58.8	75.6	
<b>C6</b>	43.4	53.2	39.2	40.6	37.8	
<b>C7</b>	25.2	43.4	30.8	39.2	32.2	
<b>C8</b>	40.6	33.6	39.2	36.4	37.8	
<b>C9</b>	37.8	40.6	37.8	81.2	40.6	