

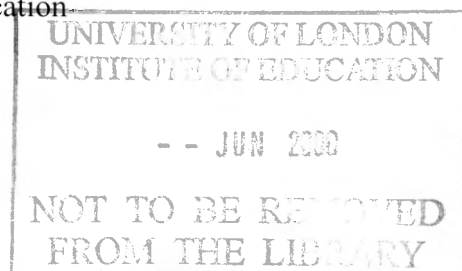
**WHAT IS BEHIND A GRADE?
GREEK PRIMARY SCHOOL TEACHERS' DESCRIPTIONS OF THEIR
GRADING CRITERIA AND PRACTICES**

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Abstract

Historically, research on grading, ie the allocation of marks by teachers to pupils has shown that it represents an assessment of both the academic and non academic characteristics of pupils. Recent research examining teacher grading criteria and practices, shows that little has changed. The present study investigates the grading criteria and practices of Greek primary school teachers . Interviews with 17 teachers investigated the extent to which the legislation regarding grading is implemented by teachers, and the possible criteria that they believe they use in grading. The analysis of the interviews showed that teachers' grading was affected not only by the academic attainment of pupils, but also by non academic factors including the overall picture of pupils' academic attainment assessed by tests, classroom participation and homework, pupils' families, linguistic level, intelligence and motivation, pupils' behaviour, teachers' personal likes of some pupils, pupils' differential attainment in different subjects, pupils self perception of attainment, and local school factors. Different teachers' grading was influenced to a different degree by these factors. On the basis of the interviews a questionnaire was devised to enable a larger sample to be studied. 472 primary teachers of both genders, working in different geographical areas of Greece, with different levels of experience and education completed the questionnaire. Its analysis showed the extent to which they were influenced by the criteria elicited in the interviews, and the differences between them. Factor analysis of the questionnaire confirmed the interview findings, and enabled the development of a possible model of the factors influencing grading, which may be used as the basis for explaining teachers' actual grading practices as opposed to their beliefs about them.

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INTRODUCTION

During the academic year 1998-99 a major educational reform in Greece was implemented. Although all parties (teachers' unions, academics, political parties) had stressed the need for a major change in the Greek educational system, the implemented reform provoked fierce disagreement by the opposition, the teachers' unions and the pupils which resulted in strikes and occupations of schools by pupils which lasted for a long time. During that time, long discussions in the media and in parliament about education in Greece took place, where, regardless of the arguments against or for the reform, one thing was evident: Most arguments were based on people's experience and ideology and not on evidence, for the simple reason that educational research in Greece is almost non-existent.

This study therefore first of all aims to contribute to our knowledge of Greek educational practices. It can be seen as part of the effort increasingly made in recent years by researchers to explore in a systematic way the Greek educational system so that arguments about education can be based on evidence and not on intuitive ideological perceptions of it.

The specific subject of this study is how grading is undertaken by teachers in Greek primary schools. Pupil assessment in Greece usually refers to the final examinations that pupils sit at the end of the last year group of the secondary school in order to be offered a place in Universities. However, pupils are constantly assessed and graded by their teachers throughout their school lives. International reports about the Greek educational system have repeatedly stressed the social importance of grades. It can be argued therefore that through the self-fulfilling prophecies created throughout a pupils' school life performance in the final examinations is largely dependent on the assessments of previous years. Such prophecies and labelling may take place as soon as the pupil begins primary school. However, little is known about how teachers in Greece assign grades because there is lack of educational research.

In Greece only a few studies have sporadically and indirectly indicated how grading takes place in the primary or secondary school. The nature of this study therefore is mainly exploratory. It attempts to explore the direct and the indirect influences of a number of factors

on grading. It focuses on how teachers describe their grade assignment, since they are the most important party in the grading process. It does not attempt to objectively describe and analyse the factors that affect grades, it only analyses the factors that teachers perceive to affect grades. The main questions that it attempts to answer are:

What implicit theories do Greek teachers hold about grading?

What are the factors that they believe they take into account when undertaking grading and how do these factors affect grading?

For instance, how do they perceive that

-testing affects grading?

-pupils' classroom participation affects grading?

-homework preparation affects grading?

-family background affects grading?

-the linguistic ability of the pupil affects grading?

-individual differences among children affect grading?

-pupil motivation affects grading?

-pupil behaviour affects grading?

-personal likes affect grading?

In relation to teachers, the study explored whether teacher characteristics affect their perceptions of grading practices. Are these differences based on

gender?

education level?

experience?

the age of children that they teach?

the geographical areas where they teach?

This thesis starts with a description and critique of the general theoretical frameworks of assessment. Chapter 1 briefly describes the arguments against and for assessment, the purposes of assessment and the assessment paradigms implemented in education as well the general guidelines of a suggested new assessment paradigm.

Previous research carried out mainly in the USA and the UK investigating the factors that influence teachers' grading are presented in chapter 2. They show that grades although they are supposed to represent academic attainment, represent much more than that. For instance a grade may represent pupil effort, interest, industry, intelligence, motivation and a number of other affective characteristics of pupils. Also different teachers appear to be affected by different pupil characteristics when grading. Even academic attainment is not assessed in the same way by different teachers. For instance some teachers place much more importance on testing, some on performance assessment etc.

Chapter 3 briefly presents what we know about Greek teachers, the Greek educational system, and the evolution of the assessment system in the past decade in the Greek primary school. It also presents the findings of Greek research into grading in the primary school. The research questions outlined above are based on the literature and the discussion undertaken in the first three chapters.

The general methodological plan of the study is presented in chapter 4. There is a discussion of why interviews and questionnaires were chosen for the investigation: the exact methodology followed in the interviews, and how the sample was selected.

The analysis of the interviews takes place in chapter 5. Extracts from the interviews allow a better understanding of Greek teachers ideas not only about the grading process itself but also about the Greek primary school. The interview findings are synthesised in a model of the factors affecting grading, and raise a number of issues for investigation in the questionnaire study.

The questionnaire methodology is presented in chapter 6. This chapter explains the development of the questionnaire, the items included in it, issues of validity and reliability, the questionnaire sample, the pilot study and its contribution to the final questionnaire.

Chapter 7 is divided into three sub-sections in accordance with the three types of analyses of the questionnaire data. In section 7.1, a descriptive presentation of the data takes place.

Section 7.2 presents the differences in teachers' answers in relation to their demographic characteristics. Section 7.3 reveals the underlying factors affecting grading which are summarised in a model of factors influencing teachers' grading according to the questionnaire study.

In chapter 8 the findings are discussed in relation to the literature and possible causes for their occurrence are explored. The limitations of the study and the questions arising from it are also discussed.

This study does not claim to have fully explored the issue of grading in the Greek primary school. It does not claim that it has been methodologically perfect, or that it has produced generalisable results. Its importance lies in its provision, for the first time, of extensive data about grading which is a central issue in Greek educational practice. Its findings may stimulate informed discussion and further research.

CHAPTER 1

GENERAL THEORETICAL FRAMEWORK

1. 1. SHOULD FORMAL ASSESSMENT BE USED IN EDUCATION?

Assessment, like every other aspect of education has stimulated debates not only concerning how it should be implemented, but also with regard to its necessity. A brief examination of the arguments on both sides will enable a better understanding of both the literature review and the study reported here.

1.1.1. Arguments against assessment

According to Dimitropoulos (1989) arguments against assessment fall into three categories: those that derive from a pedagogic perspective, those from a psychological perspective and finally those from a sociological perspective.

From a pedagogic perspective the main arguments against assessment are the following:

- The pedagogic relationship between the teacher and the pupil is disturbed when the former becomes an assessor. The pupils are no longer motivated to cooperate with the teacher, and the teacher performs less well than s/he should (Gronlund, 1978; Harlen & Quarlter, 1991; Markantonis & Kassotakis, 1979).
- Examinations a) measure only certain tasks and not the personal characteristics of the pupil as a whole, b) have little predictive validity and c) do not represent a real picture of the pupil (Papas, 1980).
- There is little evidence of the reliability and status of school assessment, and it directs educational operations towards the aim of assessment, that is, the mean is transformed into an end (Ebel, 1979).

- Pupils may make an effort, not in order to satisfy themselves, but in order to gain a prize or privilege (Child, 1993; Rowntree, 1991).

From a psychological perspective the main arguments against assessment are the following:

- Pupils' examination stress reaches extreme levels of neuroticism. Examination stress among university students is very high (Kassotakis, 1981). It has been argued that the model on which the National Assessment structure in England and Wales is based on is the creation of pressure (Gipps, 1992).
- One of the most common fears of adolescents is related to examinations (Vamvoukas, 1978).

From a sociological point of view the main argument that:

- Assessment at school has been deliberately transformed into a medium for conservation of social inequality, of oppression of some categories of pupils, and perpetuation of the differences of social classes and social discrimination (Ksohelis, 1986; Eliou, 1984).

1.1.2. Arguments in favour of assessment

The arguments in favour of assessment, according to Dimitropoulos (1989) derive from four main perspectives: those of the pupils, the school, the parents and the the social system.

From the pupils' perspective the arguments in favour of assessment can be summarised as follows:

- Pupils need assessment because they need to be aware of their own progress (Stewart & White, 1976). A pupil who is aware of his/her progress can modify his/her effort for more efficiency (Black & Wiliam, 1998).
- Assessment enables the rewarding of pupils who make an effort. High grades are seen as recognition by the pupil who has worked hard. The use of grades can be a positive reinforcer which, according to the behaviourists, contributes to the repetition of a behaviour.
- Pupils through assessment become more self-aware. This is believed to help them make crucial decisions concerning their lives in the future (Dimitropoulos, 1989).
- Assessment has motivational effects on pupils. It has been shown that pupils who know that they will be assessed are better prepared than those who know that they will not (Alexopoulos, 1979).

From the school's perspective the arguments in favour of assessment can be summarised as follows:

- School is a social institution. Since assessment exists in society, it is a school's obligation to prepare pupils for it (Satterly, 1981).
- The assessment of pupils can provide information about the teaching material which has been used, the methodology that has been followed, the educational aims that have been set, and the staff and the curricula. It also provides feedback to the teacher about the efficiency of his/her work (Crooks, 1988).
- Assessment provides information about any potential difficulties of some pupils in some areas: it has a 'screening' function (Gipps, 1992).

From the parents' perspective the main argument in favour of assessment can be summarised as follows:

- Parents have the right to be informed both about their children's progress at school and about overall school efficiency. Assessment provides the basis for such information (Airasian, 1991).

From the social system's perspective the main arguments in favour of assessment can be summarised as follows:

- Pupils must undergo some kind of selection since society has certain needs for certain specialisations. Through assessment society (a) can locate certain human resources in order to make them productive, (b) can establish the weaknesses of its members in order to improve them (Satterly, 1981).
- Every society has some kind of assessment. Therefore schools which are social institutions, inevitably must have some kind of assessment (Satterly, 1981).
- Meritocracy is one of the fundamental principles of our societies. Assessment is the medium by which those most capable for certain positions can be identified.
- Through assessment, society can locate members in need of extra help and organise programmes for them. At school assessment locates and helps children with special educational needs.

The arguments outlined above briefly summarise the debate on whether formal assessment should be used or not. However, the arguments proposed by both positions refer to only some purposes and aims of assessment, ignoring the others. For instance, the term 'assessment' is used by those who criticise assessment, to mean selective examinations either for passing from one year group to another, or to gain a position in higher education, or a

position in the work force. The anti-assessment arguments do not say much about the positive educational uses of assessment, like motivation, feedback etc. These are stressed by the pro-assessment position, which ignores the negative psychological and social consequences essentially of summative assessment. Mavromatis (1995) referring to the ‘undesirable side effects of assessment’, clarifies that assessment is a procedure which not only has positive but negative effects; the latter are mainly related to its summative function. Assessment, as shown above, is a multi-dimensional process which serves a number of purposes. A closer examination will allow a better understanding of the debate.

1.2. ASSESSMENT PURPOSES

If assessment is seen as an integral part of education, then, it can be claimed that it serves all the purposes that education serves. Therefore, a close examination of the literature concerned with assessment could reveal a wide range of purposes. However, this section will briefly present the purposes of assessment which have attracted the most attention, namely, assessment for selection, assessment for diagnosis, and assessment for motivation and feedback.

1.2.1 Assessment for Selection

Students in most formal educational systems are selected for further studies or careers on the basis of their grades. However, this process has been accused of reproducing social inequality (Broadfoot, 1979; Jencks, 1973). Selection examinations have been characterised as vehicles for rejection, since the large majority of participants fail them (Rowntree, 1987). Furthermore, there are studies which show low correlations between examinations and degree performance (Petch, 1961; Barnett & Lewis, 1963; Nisbet & Welsh, 1966). There is little evidence even about the relationship between high educational qualifications and success in later life (Berg, 1973; Hoyt, 1965; Taylor, Price, Richards, & Jacobsen, 1965).

On the other hand, it has been argued that we live in a society where selection, educational

occupational, and therefore social, is a part of our lives. As long as our society imposes selection processes we cannot just reject assessment in schools. It would be better to talk about improvement of the assessment system in a direction which reflects the current social situation. Some would even claim that: since selection is a reality which cannot be abolished, maybe what is needed is for the assessment system to be strengthened and improved (Dimitropoulos, 1989). Satterly (1981) expresses a more cynical position: 'To charge schools entirely with the responsibility for bringing about changes in society at large at the expense of overlooking the paradoxical demand that they maintain and transmit what is held by consensus to be worthwhile, is to deny an aspect of reality'.

In conclusion, selection is undoubtedly one of the purposes of assessment, especially at the end of schooling and it is this which has stimulated much of the argument against it. However, the value of meritocracy, which is deeply rooted in western societies, requires, and imposes, assessment throughout the individual's life. School assessment thus cannot be blamed for social inequality.

1.2.2. Assessment for diagnosis

The current literature on learning recognises that new knowledge can be more easily acquired when based on already existing knowledge (Chi, 1985). It is therefore essential for teachers to know what children already know in order to teach new knowledge. This is the role that diagnostic assessment plays. Assessment for diagnosis is described by Rowntree (1987) as follows:

Assessment is also a necessity pre-condition for diagnostic appraisal -ascertaining the student's strengths and weaknesses, and identifying his emerging needs and interests. In truth it is the practice of diagnostic appraisal (not grading) that enables us to claim we are teaching.

(Rowntree, 1987 p.6)

Diagnostic assessment does not take place only once, for example, at the beginning of the

school year, but is a constant process which frequently provides information to the teacher about pupils' progress and needs. Research shows that it is practised by teachers on a stable basis (Galton, Simon, & Croll, 1980; Shipman, 1983). Furthermore, teachers do not attempt to diagnose only the cognitive strengths and needs of their pupils but also their emotional ones (Thomas, 1990; Wilson, 1989). Harlen, Gipps, Broadfoot, & Nuttall, (1994) argue that success and failure are not clear-cut in the classroom, since performance is substantially influenced by context, so it seems to be preferable to use the single term 'formative' to encompass and replace what the TGAT Report described separately under formative and diagnostic. Also, Gipps (1994) describing formative assessment stresses its diagnostic nature. 'It involves a wide range of activity but its purpose is to gather information for use in decision-making in the classroom; a sound assessment is one that allows understanding of the teaching/ learning process for the student and the teacher is assessor, user, and interpreter of results i.e. s/he has an interactive role. The results are used by teachers to identify students' needs, assign them to teaching groups and to evaluate their teaching and courses; by students for feedback on their learning which in turn helps to determine their academic self-esteem and attitude to school; by parents to monitor progress and shape their child's academic potential' (ibid p.13)

This description of the functions of formative assessment shows two more purposes of assessment which will to be discussed in this chapter: assessment for motivation and feedback, and assessment for accountability.

1.2.3. Assessment for motivation and feedback

One of the basic arguments in favour of assessment, as shown before, is related to its motivational function. Indeed, research shows that assessment is related to a number of motivational styles.

Assessment has traditionally been used by teachers as a tool for reward and punishment in schools (Broadfoot 1979). Assessment has operated traditionally as extrinsic motivation in

the way it was initially suggested by the behaviourists, although its effects have been questioned by a series of studies. For instance Deci (1975) demonstrated that young children were more likely to become engaged in an activity that they were interested in, rather than one in which they knew would result in a reward for them afterwards. Indeed, research shows that the motivational function of assessment is much more complicated than initially thought by the behaviourists.

Expectations of what will be tested have been claimed to have a major impact in the learning approaches adopted by College students. For example Entwistle & Ramsden (1983) Laurillard (1984) and Ramsden (1985) demonstrated that most students were somewhat versatile in their choice of learning approach. This choice depended on such factors as interest in the topic, the nature of their academic motivation, the pressure of other demands on their time and energy, the total amount of content in the course, the way in which a task was introduced, and their perceptions of what will be demanded of them in subsequent evaluations or applications of the material. Students' perceptions of the requirements of assessment may lead them to adopt a deep or a surface approach. However, not all students are capable of adapting to assessment's demands. Several studies (Marton & Säljö, 1976; Ramsden, 1984; Ramsden, 1985) have shown that students who generally use surface approaches have great difficulty adapting to evaluation requirements that favour deep approaches. On the other hand, students who on some occasions successfully use deep approaches can all too easily be persuaded to adopt surface approaches if evaluation or other factors suggest that these will be successful. It seems therefore that if assessment requirements are perceived as demanding a surface approach, students who usually adopt deep approaches find it easy to change their approach, while, students who usually use a surface approach find it difficult to adopt a deep approach even when they perceive that assessment requires it. Thus, perceived assessment requirements affect students' learning approaches, and especially those students' who can adopt both approaches. For instance, an examination with essay questions, which is perceived as requiring a deep approach, leads students who usually adopt a deep approach to adopt it, while an examination with multiple choice questions, which is perceived as requiring surface approach, leads students who usually adopt a deep a approach to adopt a surface approach. On the other hand, students who usually adopt a surface approach, are expected to find it difficult

to adopt a deep approach even for an examination perceived as requiring adoption of a deep approach.

Achievement motivation has also been shown to be linked with assessment from an early age. For instance, Greek primary school children as young as 11 years old who were high achievers claimed that they worked hard in order to do well in examinations which were not going to take place for at least 5 years (Zbainos, 1993). Similarly Broadfoot (1979b) reports that 12 year old pupils who, when asked why they thought they were studying a particular subject, replied that it was to get their O' levels. Crooks (1988) reports that modern theories of achievement motivation place considerable stress on the importance of students' self-perceptions in determining responses to educational and evaluative tasks. Self-efficacy as defined by Bandura (1982) refers to students' perceptions of their capability to perform certain tasks or domains of tasks. Research on the role of self-efficacy in achievement behaviour has been reviewed by Schunk, (1984; 1985). Perceptions of self-efficacy in an area have been shown to correlate highly with achievement in that area. Furthermore, Thomas, Iventosch, & Rohwer (1987) demonstrated that self-efficacy was a better predictor of school achievement than selected measure of academic ability. He also found that students with high self-efficacy tended to make more use of deeper learning strategies than others. Perceptions of self-efficacy appear to have a strong influence on effort and persistence with difficult tasks, or after experiences of failure. Under such circumstances, students high in self-efficacy usually redouble their efforts, whereas students low in self-efficacy tend to make minimal efforts or avoid such tasks (Bandura, 1982; Schunk, 1985). Self-efficacy is influenced by assessment outcomes. According to attribution theory (Weiner, 1979) success and failure in school tasks could be attributed by the student to four possible causes: ability, effort, luck, or task difficulty. The first two of these are internal to the student, the latter two are external. Weiner (1979) calls them 'loci of control'. Success in assessments which is attributed to ability and effort, leads to pride and self esteem, failure which is attributed to lack of effort leads to guilt, and failure attributed to stable factors, like lack of ability leads to hopelessness. It seems therefore, that assessment outcomes affect self-efficacy through attributions, which in turn affect later motivation, and finally later performance which is assessed and so on.

The above brief presentation of some of the studies concerned with the relations between assessment and motivation leads to the conclusion that assessment does affect students' motivation. Assessment can operate not only as a medium for reward and punishment but also by affecting students' styles of learning, it can influence achievement motivation, and also it has an impact on students' self-efficacy which in turn affects students' attributions of success and failure.

Feedback is conceptually linked to assessment and motivation. Feedback has been defined by Ramaprasad (1983) as 'information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way' (Ramaprasad, 1983 p. 4). From this definition it can be concluded that feedback can only be provided within the process of formative assessment; summative assessment cannot provide much useful feedback since this is not its role. Kulhavy (1977) stresses that the key function of feedback is that of correction : '(Feedback) confirms correct responses, telling the students how well the content is being understood, and it identifies and corrects errors - or allows the learner to correct them. This correction function is probably the most important aspect of feedback' (Kulhavy, 1977 p. 229). The role of feedback is especially stressed in the social-constructivist cognitive theory initially proposed by Vygotsky (1978) where adults are seen as the 'significant others' who help scaffold learners' knowledge in order the cognitive skills to be learnt. It is not surprising, therefore, that feedback is a key element of both teaching models, e.g. (Bennett, Desforges, Cockburn, & Wilkinson, 1984; Pollard, 1990) and assessment models e.g. (Sadler, 1989; Sadler, 1987).

The literature regarding the relationship between feedback and assessment has been reviewed by Crooks (1988). In brief, the literature suggests that feedback generally increases what students learn from reading assignments which include questions or tests for them to answer (Kulhavy, 1977). However, if the material is too difficult for the students to process, they try to learn the main points from the feedback. That is, the more difficult the task, the more daunting feedback becomes (Kulik & Kulik, 1987). Also feedback does not seem as effective when provided too soon, thus allowing the student to avoid careful reading and answering the questions. The major benefit from feedback is the identification of errors of knowledge and

understanding, and assistance with correcting those errors. The most effective form of feedback depends on the correctness of the answer, the student's degree of confidence in the answer, and the nature of the task. If the answer is correct, simple confirmation of its correctness is sufficient. If the question is factual and the answer is incorrect, the most efficient form of feedback is probably simply to give the correct answer. If the question involves comprehension or higher cognitive skills, however, more detail is desirable. Students who answer such questions incorrectly with high confidence may need to identify the source of their misunderstanding, whereas students who answer the question incorrectly with low confidence may need to be given conceptual help and advised to restudy the material (Block & Anderson, 1975; Fredericksen, 1948).

The literature on feedback has also examined its relations with the self-image and self-esteem of students or pupils. Findings differ regarding the age by which children have formed an academic self-image being capable of ranking themselves according to their academic ability. Crocker & Cheeseman (1988) reported that by the age of 6 children used criteria which were predominantly academic. On the other hand Tizard, Blatchford, Burke, & Plewis (1988) demonstrated that 7 year olds were not particularly accurate at estimating their academic achievement. They argued that children up to the age of 8 tended to overestimate their own academic ability. In fact, a follow-up when the same children were 11 showed that they were more accurate in estimating their academic achievement (Blatchford, 1992).

Regardless of age, it has been shown that pupils' academic self-image is created through observing and feeling not only how the teacher interacts with them but also how the teacher interacts with the rest of the class (Crocker & Cheeseman, 1988). Feedback therefore appears to have a great influence in creating an academic self-concept. Dweck (1986) demonstrated that self-concept has a significant effect on pupils' motivation. The concepts of feedback, self-image and motivation are interlinked. Dweck (1986) claimed that students according to their self-concept may adopt adaptive or maladaptive motivational patterns. 'Adaptive motivational patterns are those that promote the establishment, maintenance and attainment of personally challenging and personally valued achievement goals. Maladaptive patterns are associated with a failure to establish reasonable, valued goals, to maintain effective striving

toward those goals, or ultimately to attain valued goals that are potentially within one's reach' (Dweck, 1986, p.104) In an earlier study Dweck, Davidson, Nelson, & Enna (1978) showed that children stop trying when they do not see themselves as capable of success. They also demonstrated that girls attributed failure to lack of ability rather than motivation; this was because teachers' feedback to boys and girls led to girls feeling less able, while allowing boys to explain their failure through lack of effort or poor behaviour. It is evident therefore that teachers' formative assessments, even if used as feedback, have a very important impact on pupils' self-perceptions which affects their attributions and motivation and finally their attainment.

In conclusion, according to the literature feedback plays a major role in classroom learning. It appears to have an important effect in improving pupils' academic performance as well as being a major influence on their motivation. Assessment has a central role in the circle feedback-motivation-learning, since feedback is provided after assessment of certain pupil behaviours, and is used again for assessing learning outcomes. The circle therefore becomes: pupil performance - assessment - feedback - motivation - learning - assessment, and it is repeated if the assessment results are not satisfactory.

So far, central questions regarding the necessity of assessment have been raised, and the discussion has been extended to some of the purposes of assessment since they were related to those questions. Within the rather theoretical nature of the above discussion, assessment was presented as a fixed concept and neither differences in assessment practices nor the different assessment theories were mentioned. These practices and theories will be dealt with now:

1.3. ASSESSMENT PARADIGMS

Assessment is an integral part of the educational process and it is logical that the

psychological theories that throughout time have influenced educational practices have influenced assessment. The categorisation of assessment theories adopted here therefore is in accordance with the educational-psychological theories on which they are based. The major distinction however is between large scale assessment and classroom assessment (Stiggins, 1992). As Cizek, Fitzgerald & Rocher (1995) stress, the literature on educational assessment has been targeted towards two aspects: (a) large-scale testing, its uses and its influences on teaching and learning, and (b) investigations of alternative assessment formats. Similarly, Berlak (1992) categorises theories of educational assessment under two paradigms, the 'psychometric' and the 'contextual', the former referring to large scale assessment which has dominated for many years, the latter referring to the principles of the 'new science of assessment' that he is suggesting. Gipps (1994) in a more detailed categorisation draws distinctions among the mass administered tests with regard to their underlying assumptions. Thus, she suggests the 'psychometric paradigm' which includes norm-referenced tests; the 'educational measurement paradigm' which includes criterion-referenced tests; and the 'educational assessment' paradigm, for which she presents the principles of a new theory of educational assessment. The following presentation uses Gipps' (1994) categorisation.

1.3.1. Psychometric Paradigm

Intelligence is one of the most studied concepts in educational psychology. The relationship between intelligence testing and education is as old as intelligence testing itself. The first scale was published in 1905 and aimed not to measure academic knowledge (what children already knew) but educability (their potential). The Binet tests and their derivatives (the Stanford-Binet in the USA and the Burt tests in the United Kingdom) were widely used throughout the world for the next sixty years for diagnosing mental retardation in children. A 'scientific' tool - an intelligence test-, was thought to be more appropriate and less biased for selection in education than any alternative. It is frequently pointed out that when IQ tests were abolished for the eleven plus, the number of working class children in grammar schools decreased (Rust & Golombok, 1989). However, psychometrics is only axiomatically valid if sociobiology is axiomatically true, and this is widely disputed. For instance Gipps (1994) argues that the idea

of inherited and fixed characteristics which underlies trait theories provides an assessment model which is one of limitation:

‘This notion of limitation is seen now to be a major disadvantage of the psychometric approach. Assessment to support learning, by contrast, aims to help the individual to develop and further his/her learning; it is enabling rather than limiting’.

(Gipps, 1994 p. 5)

The type of assessment suggested by the psychometric paradigm is that of norm-referencing.

Satterly (1981) summarizes the characteristics of norm-referenced testing as follows:

- i. Is carried out for the purposes of comparison and discrimination between individuals.
- ii. Aims at high variability among scores to maximize this discrimination
- iii. Interprets scores in relation to those of a number (preferably large) of other individuals (norm groups).
- iv. Is indispensable on the relatively rare occasions in education where fixed quota selection decisions have to be taken, when selecting from a larger pool of children for the distribution of limited resources as in the competition for places’.

(Satterly, 1981 p.48)

Gipps (1994) argues that norm-referenced tests are designed to produce familiar proportions of high, medium and low scorers. Since students cannot control the performance of other students they cannot control their own grades; this is now widely considered to be an unfair approach for looking at pupils’ educational performance. Furthermore, although psychometric assessments as mentioned above were initially introduced to promote equal opportunities, it has been shown that they are not free of bias, especially of race and gender (Mackintosh & Mascie-Taylor, 1985; Rutter, Yule, & Berger, 1974; Yule, Berger, Rutter, & Yule, 1975; Gipps & Stobart, 1993; Hannon & McNally, 1986).

The issues of validity and reliability are crucial in testing in general, but particularly so in psychometric testing. But it is almost impossible for a test to be absolutely valid and reliable and free of bias. Even according to psychometric handbooks, it appears questionable that there are any tests which are indeed valid. For example Kline (1993) concludes:

'As we have seen it is no easy matter to show that a test is valid. Consequently it is hardly surprising that relatively few tests have good evidence for their validity. Indeed perhaps the opposite is true: the fact that any tests have been shown to be valid is surprising'.

(Kline, 1993 p.27)

In summary, psychometric testing was claimed to be a 'fair' 'scientific' tool when it was first introduced in educational assessment in the US and the UK. However, research from the fifties onwards showed not only that it was not fair or scientific, but also that it did not serve educational purposes since one of its basic claims was that it measured fixed and inherited properties, an assumption which minimised the role of learning.

1.3.2. Educational Measurement Paradigm

The distinction between psychometric testing and educational measurement can be understood by reference to an example used by Popham (1978): If we are interested in whether someone can ride a bicycle or not, then the performance of other people on their bicycles may well be irrelevant. Further, if we have a group of individuals and we want to know whether they can ride bicycles, then we should be delighted if they all turn out to be able to do so and not concerned that we do not have a wide spread of abilities. He suggested that there was no special need for the distribution of scores to be normal on a test. It is performance on the criterion which matters, even if all individuals obtain the same score.

Criterion referenced assessment was suggested by (Glaser, 1963):

What I shall call criterion-referenced measures depend upon an absolute standard of quality, while what I call norm-referenced measures depend upon a relative standard.

(Glaser, 1963 p.519)

At the time when the term criterion referenced assessment was introduced the notion of fixed personal characteristics, normally distributed among individuals, was starting to be replaced by the Vygotskian 'zone of proximal development' (Vygotsky, 1978), which places instruction at the heart of development: 'a child's potential for learning is revealed and indeed

is often realised in interactions with more knowledgeable others' (Wood, 1988). At the same time Carroll (1963) introduced the term 'mastery learning', claiming that every person can learn anything under certain conditions. Bloom (1974) mentions that what any person in the world can learn, almost all persons can learn if provided with appropriate prior and current conditions of learning. Mastery learning proposed structured-programmed teaching since its basic concept was that new knowledge can only be built on prior knowledge. Assessment's role therefore is to examine whether a pupil has mastered the objectives set by the structured teaching programme. In such an educational system psychometrics is pointless since interest has shifted from norm-referenced to criterion-referenced assessment.

Black and Dockrell (1984) point out that, although the idea of criterion referenced assessment was not new, it was not until 1963, when Glaser (1963) published his first paper, that the term was adopted. In 1971, Popham (1971) characterised the period between 1963 and 1971 as a gestation period for criterion-referenced testing. In fact the first book on criterion-referenced assessment was published in 1971. In 1979, Hambleton, Powell, & Eignor, (1979) reported that there were 600 available papers on the issue. By the early eighties, a number of comprehensive books was available on criterion referencing e.g. (Berk, 1980 ; Popham, 1978; Roid & Haladyna, 1982). Criterion-referenced testing was adopted widely in the USA, mostly in the guise of minimum competency tests and mastery learning programmes. A modified version was taken up in the UK with graded assessment; and then in the mid -1980s it was decided that both GCSE and National Curriculum assessment would be criterion-referenced (Gipps, 1994).

Although criterion-referenced assessment and mastery learning programmes seemed at the time to be the solution to both the philosophical and the technical problems of psychometric testing, a detailed examination showed that they could not be considered as a panacea for assessment.

First of all questions have been raised regarding the distinction between criterion and norm-referenced testing. In the literature there are examples of criterion-referencing being used for normative purposes. For example, Madaus (1992) pointed out that in Massachusetts criterion-

referenced tests are used for comparison among students, or in other words for normative purposes. Gipps (1994) gives the example of the Notenskala, the criterion-referenced grading scale of the German educational system, where the same grade in Germany has a different meaning in different schools. That is, the interpretation of 'good performance' is defined differently in different types of schools until the final national examinations. Therefore in Germany we have a case of criterion-referenced assessment in which criteria are loosely interpreted within norms which correspond to types of school.

Technical problems have also been identified in criterion-referenced assessment especially with reference to validity and reliability. These issues have their roots in psychometric tests which are considered 'scientific' only if they meet certain standards of validity and reliability which can be calculated using complicated statistical formulae. Statistical analyses in psychometrics presume the variance of the mean scores, because the philosophical presupposition of psychometric testing is that a psychological attribute is normally distributed in the population. As Satterly (1981) stresses, in criterion-referenced testing there is only a small amount of variance, because it yields only two values, mastery and non-mastery. This makes it difficult to calculate a predictive validity coefficient. It is even more difficult to measure construct validity in criterion-referenced tests, since they are not made to measure constructs like, for example, mathematical ability or intelligence. However the content validity of criterion-referenced tests can be more easily achieved than with psychometric testing, since the objective tested is more narrowly defined. Therefore Linn (1980) concluded that validity in criterion-referenced assessment relates mainly to content validity.

The issue of reliability is also important in the assessment literature, and also has its roots in psychological testing. Satterly, (1981) stresses: 'Given the definition of reliability, it is obvious that if a test failed to distinguish between children (say if all children in a group got the same mark) it would be impossible to differentiate zero variance into true and error components! Although such a test would be useless as a norm-referenced instrument it is not entirely valueless in the assessment of criterion-referenced learning. The purpose of criterion-referenced testing is usually to classify learners into 'masters' or 'non masters' of an objective so that the teacher may decide whether a pupil is ready to move on to the next objective or

whether it would be advisable to spend longer on related learning in order to overcome the deficiency identified' (Satterly, 1981 p. 217-8). Gipps (1994) discusses reliability in criterion-referenced assessment by saying that classical test theory methods for estimating reliability are not suitable for criterion-referenced assessment. Satterly (1981) recognises that measurement theorists are unable to provide a satisfactory method for estimating the reliability of criterion-referenced tests and suggests a test re-test method in each one of the domains of criterion-referenced tests. In general, however, it is admitted that reliability in criterion-referenced testing cannot easily be estimated.

Another major technical issue relating to criterion-referenced testing is that of aggregation, defined by Gipps (1994) as the 'collapsing' of the detailed performance profile for each individual into a single reporting figure or grade. Gipps & Stobart (1993), discussing the effects of aggregation in GCSE examinations, argue that an aggregated crude grade decreases the motivating effects of a criterion-referenced test, since it does not provide feedback to the assessed individual. Also it does not provide any information to the employer; if a test examines for instance five domains and one examinee has done well in only three, s/he will get a high overall grade. However the crude grade by itself does not give information on which of the five domains the examinee has done well.

An overall criticism of criterion-referenced testing comes from its failure to fulfill the expectations of its supporters when it was first introduced into education. Even in relatively early work, (Black & Dockrell, 1984) there were doubts about its use in every domain: 'it is not unusual to find assertions in the literature or in debate that the criterion-referenced approach has limited application. Typically, these are based on the assertion (a) that it is not possible to create tests in some areas because the domain cannot be 'defined', and (b) that even if such tests were available they could not be interpreted in a mastery context because the notion of 'n correct' does not apply.' (Black & Dockrell, 1984 p. 63).

In recent years, a further debate has focussed on the specification of the criteria of criterion-referenced testing. Gipps (1994) for example argues that 'in order to meet the requirements for strict criterion-referenced assessment, criteria need to be specified in fine detail; however

this leads to over-specification and a focus on narrow, tightly defined objectives'.(Gipps, 1994 p.93) She also mentions that even Popham, who was one of the most enthusiastic supporters of criterion-referenced assessment in the USA in his later work stresses the importance of stating only a few broad objectives (Popham, 1987).

Criterion-referenced assessment in general must be seen as the alternative to norm-referenced assessment as suggested by psychometrics. More recent work in the area of assessment has proposed a new theory of assessment which is linked with the educational process, and supports learning. This trend can be seen in the most recent books on assessment: for example the titles of two books are characteristic: 'Towards a theory of educational assessment' (Gipps, 1994) or 'Toward a new science of educational testing and assessment' (Berlak, et al., 1992). 'Educational assessment' is the third paradigm to be considered. It should be noted however that the theories that constitute it cannot be characterised as providing a single solid and coherent approach to assessment; they share, however, the idea that existing theories of assessment do not adequately serve educational purposes and that a new theory of classroom-based assessment is needed.

1.3.3. Educational Assessment Paradigm

The work of Sadler demonstrates the transition from educational measurement to educational assessment. Sadler (1987) although he adopts the motivational and philosophical underpinnings of criterion-referenced assessment, raises two concerns about its general applicability. He argues firstly that in criterion-referenced assessment, especially as seen in examinations, much of the responsibility for grading and assessment is removed from the teaching profession as a whole and vested within a central bureau or agency. Secondly, criterion-referenced assessment which relies heavily on objective testing is inappropriate for many students and parts of subjects where the quality of student work can be best assessed only by direct qualitative human judgment. As an alternative to criterion-referenced assessment he proposed standards-referenced assessment.

His suggestions indicate that assessment first of all should take place at school and be undertaken by the teacher. In fact, teachers constantly make qualitative judgments, assessment remarks in other words, which are not taken into account in formal assessment. In order however for teachers not to be biased by external and pupil factors, standards should be stated clearly and teachers should be trained. In contrast to educational measurement as expressed by criterion-referenced assessment, the shift to educational assessment which takes place within the school and by the teachers is evident in Sadler's theory.

Assessment in the classroom by the teacher of the class and not by an external body is the central idea of the new proposed assessment paradigm as described by Berlak (1992) and Gipps (1994). Berlak (1992) uses the term 'contextual' to describe the new paradigm of assessment. In essence, the terms 'educational assessment paradigm', used by Gipps (1994) and 'contextual paradigm' used by Berlak (1992) do not differ, since education is the context within which assessment takes place and thus the name for it. Moreover, the basic assumptions underlying the two conceptions are similar and complementary to each other rather than contradictory.

Berlak (1992) presents the basic principles of the contextual paradigm as counter-assumptions in contrast to the assumptions underlying the measurement tradition. He does not attempt to make a detailed set of recommendations for a national system of school assessment a task that he characterises as beyond the capacity of any individual. He contrasts the suggested new 'contextual paradigm' only with reference to the 'psychometric paradigm', which according to his view includes both norm-referenced and criterion-referenced testing, considered as expressions of the same tradition of assessment, since they are mass administered, centrally devised, and serve the same purpose, namely to exercise control from the centre. The basic assumptions of the psychometric paradigm that the contextual paradigm rejects are as follows:

1. There are or can be universally accepted meanings of educational constructs, or where conflicts and contradictions exist these can be transformed into technical problems which may be settled by experts.

2. Tests, constructed according to established technical requirements, are morally neutral scientific instruments which stand outside history and culture.
3. Human cognition and affect may be separated, at least for the purposes of measurement.
4. Schools and educational systems should be managed and controlled by the centre, the centre here referring to the central office of a local school district, a district-wide governing board, state educational bureaucracy, a national government or non-governmental testing agency, an accrediting body, or some combination of the foregoing.

The counter- assumptions that underlie the suggested contextual paradigm can be summarised as follows:

1. The assumption that there can be meaningful nationwide, statewide, district-wide or even school-wide consensus on the goals of schooling and what students should learn and how they should learn is unattainable. In a multicultural society which values difference, a consensus is undesirable. He argues that it is possible to develop a system of educational assessment that takes plurality of perspectives and differences in values and beliefs as givens, and treats these differences as assets, rather than obstructions to be overcome.
2. The argument about whether a test measures what it claims to measure rests on the case made for its construct validity, which is considered a technical matter. However, all assessment procedures including tests, are privileged forms of schooling practice; they are not and cannot be neutral scientific instruments.
3. The next counter assumption of the contextual paradigm is the inseparability of cognitive affective and conative learning. This assumption is based on Raven's (1992) work where he argues that each aspect of learning cannot be assessed separately. He also introduces the conative aspect of learning (determination and persistence) which is interlinked with the other two. He suggests that all these aspects of learning should be assessed together, since the development of human capacities is contingent upon the opportunity structure (the social

context) as well as the learner's will, interest, and knowledge.

4. The fourth counter assumption of the contextual paradigm argues that 'assessment for democratic management requires dispersed control'. That is the system of assessment should be reformed in such a way that it disperses power, vesting it not only in administrative hands but also in the hands of teachers, students, parents and citizens of the community a particular school serves. From both experience and social scientific evidence it is clear that good schools require a strong measure of autonomy for teachers and other school-level professionals, and participation by the local school community.

The general principles of the contextual paradigm as presented by Berlak (1992) in opposition to the traditional assumptions of assessment clearly show its disagreement with both norm and criterion referenced assessment. Criticism of existing educational practices, especially when based on political and sociological arguments, which may be in principle correct, should be accompanied by practical and tested suggestions. With the exception of the third counter assumption of the contextual paradigm which is based on the work of Raven (1992) who has carried out research and makes very clear suggestions for how cognitive affective and conative aspects of learning can be assessed together, there is no other empirical research support to Berlak's arguments.

Gipps (1994) offers a much more detailed description of an 'educational assessment' paradigm which provides a holistic alternative to the traditional assessment paradigms with much more practical recommendations. In brief, the general framework of the educational assessment paradigm as she describes it (Gipps, 1994) is as follows:

- 'Educational assessment recognises that domains and constructs are multi-dimensional and complex; that assessing achievement is not an exact science; and that the interaction of pupil task and context is sufficiently complex to make generalisation to other tasks and contexts dubious'.
- In educational assessment clear standards are set for performance against which pupils will be assessed.

- Educational assessment encourages pupils to think rather than tick alternatives or regurgitate facts.
- Assessment which elicits an individual's best performance involves tasks that are concrete and within the experience of the pupil.
- Educational assessment involves grading or scoring by teachers or trained raters.
- In educational assessment we move away from the notion of a score, a single static, and look at other forms of describing achievement including 'thick' descriptions of achievement and profiles of performance.
- Teachers' own assessment of pupils are a key component within an educational assessment.
- Teachers cannot assess well subject matter they do not understand just as they cannot teach it well.
- Educational assessment is not high stakes: the publication of test data at the class and school level distorts the educational process and encourages 'cheating' of various kinds.

The definition of educational assessment by Gipps (1994) can be characterised as a much more complete picture of recent trends in the area of assessment. She has taken into account both the literature (for example the influence of Sadler's (1987) work on standard reference assessment is evident) and the English experience in assessment where both psychometric and criterion-referenced assessment have been applied (e.g. 11+ exams, GCSE exams). In the principles of the educational assessment paradigm quoted above, the role of teachers in assessment is central. Gipps, as well as Sadler and Berlak give special emphasis to the role of the teacher who after all is the one who interacts with the pupils during a school year. Under some conditions the teacher is considered as the most responsible person to assess. For instance, at least three of Gipps' (1994) principles refer to the central role of the teacher in assessment. Sadler (1987) stresses that competent teachers are the ones who can perform standard referenced assessment. Berlak (1992) also stresses the need for the decentralisation of assessment and transference of responsibility to teachers.

To conclude, in recent years, after experience of psychometrics and criterion referencing in

various countries including Australia (Sadler, 1987), the USA (Berlak, 1992) and the UK (Gipps, 1994) new trends in assessment have a common focus. Assessment should be made in schools by the teacher(s) of the class and mainly focus on meeting learning needs and improving the motivation of pupils. It has been shown that each assessment paradigm is related to the educational purposes suggested by educational theories of its time. The psychometric paradigm was applied when the predominant theory suggested that personal characteristics were stable and inherited. The educational measurement paradigm was related to constructivist psychological approaches and mastery learning programmes. The shift to the educational assessment paradigm occurred when it was realised that assessment could not be seen separately from learning and should aim to support it. Teacher assessment (or classroom assessment in the USA), and formative assessment in recent years have repeatedly been the focus of research and have been adopted in formal assessment systems. For instance in the National Curriculum of England and Wales introduced in 1988 there is a teacher assessment (TA) element. The evidence however demonstrates that teachers do not assess in the same ways. That evidence will be presented in the following chapter.

CHAPTER 2

TEACHERS' ASSESSMENT AND GRADING PRACTICES

Having discussed the theoretical issues connected with assessment let us see what empirical research has shown regarding the implementation of assessment in schools by teachers. The research presented shows that teachers although following the same curricula and following instructions demonstrate large differences in their assessment practices.

2.1. ASSESSMENT IN ENGLAND AND WALES

In England and Wales the existing assessment system has its roots in the 1988 Education reform act which introduced the National Curriculum. According to Desforges, Holden, & Huges, (1994) the provisions of the Act intended to raise the standards of educational attainment in schools and to achieve greater value for money. That is to say standards would be raised without an increase in public expenditure. This was to be achieved by means of the promotion of market forces in the education of children. Customer choice would be enhanced through the open enrolment system, and market information would take the form of test scores and other data set out in the form of league tables. Within this framework, assessment in the primary school would take place in Y2 and Y6 (at the end of key stages 1 and 2) the assessment results would be sent to the Local Education Authority and would then be forwarded to the Department for Education which would then publish the league tables in order to inform parents and the public about the results of each school. Summative formal assessment in each curriculum area comprised Teacher Assessments and Standard Assessment Tasks. In the first attempt to implement Standard Assessment Tasks in the primary school, a boycott of assessment by primary school teachers caused the system to be reconsidered (West, Sammons, & Nuttal, 1994). Now, at the end of key stage 2, SATs have become more comprehensive formal national tests, examined by external markers organised by the secondary examination board after agreement with the teacher unions to reduce the workload of teachers (Brown, McCallum, Taggard, & Gipps, 1997). At the end of Key stage one, the tests are standard activities that require interaction between the student and the teacher in their

administration. They are intended to simulate typical classroom activities so that children may not even know they are being assessed (Thomas, Madaus, Raczek, & Smees, 1998). Teacher Assessment is reported to parents alongside national test results, but teachers may postpone marking their assessments until after receiving the results of the national test (Brown, McCallum, Taggard, & Gipps, 1997). Teachers appear to spend a long time preparing pupils for the SATs (Menter, 1991), and in general TA and SAT's appear highly correlated at Key Stage 1 (Thomas, Madaus, Raczek, & Smees, 1998). However, according to a study carried out by Brown, McCallum, Taggard, & Gipps (1997) at Key stage 2 teachers appeared to express concerns about SATs validity centred around the unfairness of the tests for specific types of pupils, and the poor match with classroom practice. These are the reported reasons for the significant discrepancies between TA and SATs at key stage 2. While a minority of teachers remain opposed in principle to national tests, most teachers accept them as fulfilling a moderation role, believing that the results should be combined with teacher assessments rather than being separately reported.

2.1.1. Teacher assessment in England and Wales

Teacher assessment however, appears to take different forms with different teachers and is different in relation to the pupils' year group. Two studies (Gipps, McCallum, & Brown, 1996; McCallum, McAlister, Brown, & Gipps, 1993) have attempted to devise models of the ways in which primary teachers carry out assessment at key stage 1 (pupils of 7 years old) and key stage 2 (pupils of 11 years old). At key stage one they devised three categories -they name them models- of Teacher Assessment. The first category comprises 'critical intuitives' who fall into two subgroups: the first 'Children Needs Ideologists' and the second 'Tried and Tested Methodologists' (mentioned also as tried and tested practitioners in later papers). The second model was named 'Evidence Gatherers' and the third 'Systematic Planners'. This also including two subgroups 'Systematic Assessors' and 'Systematic Integrators'. The main characteristics of each of these groups are that:

'Intuitives' in general reject systematic recorded Teacher Assessment, which is seen as

interfering with real teaching. 'Children's needs ideologists' show a great deal of confidence and can articulate arguments about assessment which defend a child-centred view of curriculum, teaching and learning. 'Tried and tested methodologists feel secure in modes of teaching and assessing practised before the introduction of the National Curriculum, but are less confident in articulating what these are, their basis, or how they use them.

'Evidence gatherers' have a basic belief in the primacy of teaching rather than assessing. Their main method of assessment relies on collecting evidence which they only later evaluate. They have a belief that pupils generally learn what is taught and only what is taught; thus assessment follows teaching in order to check that the process is going to plan.

For 'Systematic planners' planning time for assessment has become part of their practice, and the planned assessment of groups and individuals informs future task design and class work. There are two identifiable subgroups in this category. 'Systematic Assessors', who give regular concentrated time to one group of children at a time and devise systems to lessen demands upon them by the rest of the class. Other teachers, called 'Systematic Integrators', do not separate themselves off from the rest of the class but circulate, gathering evidence in different ways which is fed into recorded assessment and informed planning. However, for all 'Systematic Planners' assessment is diagnostic.

The second study was carried out with teachers of Y6 (11 years old). The results indicated four teacher assessment models with similarities and differences from those found at key stage 1:

'Testers' are characterised by teaching a body of work relating to one or more attainment targets and then checking attainment by testing children using assessment tasks which have been planned well in advance: assessment is essentially 'bolt on'. Levelled tasks kept as evidence feed into decision making, and recording of levels. Clearly, the teachers in this group do not rely on global, intuitive judgments about children, but are using assessment criteria to set tasks and refer back to the criteria to assign a level to the work.

‘Frequent Checkers’ have something in common with ‘Testers’ in that at the beginning of the year, they plan which assessment tasks will be carried out. However, their practice is characterised by more frequent task monitoring and setting than ‘Testers’. Their assessment is not diagnostic in that they do not elicit discussion about individual misunderstandings resulting from assessment. Rather they focus on the next piece of work or handle it in a different way or repeat it in the light of the general misunderstandings, although they often target a group and bring them together to give revision or reinforcement. The priority is teaching (rather than assessing), but teaching that can be changed and adapted as a result of how children in general manage the activities from day to day or week to week.

‘Markers’ are characterised by the use of intuitive judgements using personal criteria and marking schemes which later need to be converted into National Curriculum criteria before assigning a level. These are intuitive assessors who think of assessing as marking and say that much assessment goes on in their heads. This group of teachers is clearly not planning to give assessment tasks on particular SoAs (Statements of Attainment). They focus on teaching not assessing and they feel that their plans for classes and groups can also be used for assessment purposes. The work may be loosely based on the National Curriculum, but is not always tightly so. They do not take and annotate samples of ongoing work as evidence of attainment; the marked work in exercise books is the evidence and when making decisions, they consult marks they have given for work in books or marks they have given on tests.

‘Diagnostic Trackers’ are characterised by detailed planning for different National Curriculum levels, day-to-day tracking of children as they cope with the work, and teacher assessment that uses techniques of research: questioning, observation and recording incidents as they happen. They tell children what criteria they are looking for in their day-to-day work, make an attempt to sit with individual children and may set up times for reviewing each child’s work with the child. They do not have set times at which they record progress throughout the term, because they may be noting things or collecting data and samples from children at any time. If they find they do not have enough from some children, they target them for attention and data collection before the end of the year.

The similarities and differences among the teacher assessment models of the two first key stages are described by Gipps, McCallum, & Brown (1996) as follows:

A focus on the individual and assessment for diagnosis at Y2 shifts to a focus on assessment for curriculum differentiation for the class/group at Y6

The strong ideological views about what is appropriate (in both assessment and curriculum terms) for young children shift/soften to a rather more accepting view of the appropriateness of formal testing by age 11 (although the use of league table is still not seen acceptable).

Along with the use of tests and assessment tasks there would appear to be more summative than formative assessment at age 11 and this assessment appears to be less integrated with teaching.

Informal or qualitative approaches to assessment, while more evident at age 7, are nevertheless a key feature at age 11.

At both ages some teachers do not adopt the use of National Curriculum levels, but rely on their personal criteria for assessment (which must then be converted to, or equated with National Curriculum levels for reporting)

At both ages some teachers collect large quantities of evidence to support their assessment; this may be a temporary phenomenon which is due to anxiety about a new requirement for which there has been little preparation or training.

At both ages some teachers are very systematic in their planning and assessment practice.

(Gipps et. al., *ibid*, p.180)

Gipps, McCallum, & Brown (1996) attributed the differences they found among teachers to an objection to the use of the law (National Curriculum) to impose on teachers the obligation to operationalize a different set of understandings concerning the role of assessment in primary schooling. They also stressed that this conflict of understanding was stronger at infant

than junior level, reporting that the disagreement was not so much about the role of assessment in helping children to learn, but about the type of assessment. The reasons for the differences between the teachers' assessment models at the two stages in their opinion needs further research with regard to the age and the stage of the learner.

It seems therefore that teachers, although they know that their assessments will be reported alongside national test results employ a range of different strategies to carry them out. Maybe, the different models of teacher assessment can explain the discrepancies between TA and SATs reported at key stage 2. Teacher assessment however, is only one part of the summative assessment of pupils and relatively less important as it is always over-ridden by the SATs. Teachers also do not report an overall grade for each subject at the end of term but a subject level description according to clearly pre-specified Statements of Attainment Targets. As the following studies will show, the differences among teachers in both assessment modes and criteria by which they assess is even greater within curricula where an overall final grade is reported by the teacher without external moderation.

2.2. TEACHER'S GRADING PRACTICES

Research has also focussed on teachers' grading practices, in other words how do they allocate grades at the end of a pre-specified period of time such as a semester, term, or school year. It is a common practice in many educational systems for teachers to give report cards with grades, marks or letters at the end of certain periods of time, (terminal or summative assessment). In some educational systems this can be characterised as the most important form of assessment, since grading constitutes the most formal form of assessment with possible motivating consequences for the pupils as well as informative purposes for others (parents, community, school society). Blount (1997) comments that because grades seem essential, they have taken on an artificial status in some educational systems. The importance of grades has transcended the importance of learning. It appears that learning has become a by product of grade acquisition. The real goal in the instructional process, it seems, is for students to acquire good grades. Grades have become so important that they have acquired the

status of a medium of exchange. Students can exchange grades for the good will of parents, teachers and often peers. They can also exchange grades for recognition, awards, scholarships, and admissions to prestigious colleges and universities. Grades like any other medium of exchange, retain their purchasing power despite how students acquire them. For example the purchase power of a dollar is the same if found, inherited, earned through enjoyable work or labourious drudgery, or stolen. Maybe this is the reason that teachers appear to encounter difficulties when writing reports and express doubts about the usefulness of their format (Afflerbach & Sammons, 1991).

The general question that these studies have attempted to investigate is ‘how do teachers allocate grades to their pupils. There is also a number of sub-questions related to the methods used, the pupil characteristics affecting grades, the reliability of teacher summative assessment etc. The general conclusion of these studies can be summarised as following:

“Regardless of the kinds of marks, however, grades continue to be relied on, ostensibly to communicate important information about performance and progress. The largely unaddressed problem is that teachers’ practises for assigning grades vary widely and unpredictably. The meaning of a students’ grade to any interested party -the parents, other teachers, college admission departments, employers, and even the student- is unclear. Sadly as the range and quality of information about educational performance available to students, teachers, parents, administrators and the American public have improved dramatically, teachers grading practices remain unchanged”

(Cizek & Fitzgerald, 1995)

2.2.1. What do grades represent?

2.2.1.1. Bias in grading

The issue of variety and unpredictability of teachers’ grading has been addressed since the latter part of last century eg. (Edgeworth, 1890; Starch and Elliott 1912; Hartog and Rhodes 1936), Teachers’ grading has been criticised for unreliability (both inter-rater discrepancies and the inconsistencies of one rater over time), order effects (the carry over of positive to negative impressions from one appraisal to the next, or from one item to the next on a test paper), the halo effect (letting one’s personal impression of a pupil interfere with the appraisal

of that pupil's achievement), a general tendency towards leniency or severity on the part of certain assessors, and the influence of extraneous factors (such as neatness and handwriting). Recently, Black (1998) reports that there are conflicting results regarding whether teachers confuse or conflate industry and effort with achievement. There is evidence of teachers behaving differently towards boys and girls, towards pupils from different social classes, and towards good looking and plain looking pupils. In each of these cases, some teachers would rate a particular piece of work more highly if it came one type of pupil rather than the other. Teachers also tend to be influenced by opinions about a pupils' ability rather than strictly on achievement.

2.2.1.2 Pupil characteristics and grading

The interference of a number of pupil characteristics in grading has been repeatedly shown in the literature. Wood & Naphali (1975) using the repertory grid technique investigated the criteria by which 16 secondary mathematics and geography teachers of an outer suburb of London graded their pupils. Their results showed that when assessing achievement teachers were likely to differentiate between pupils on the basis of all or some of six derived constructs. These are presented in no particular order of importance:

- a. The involvement of the pupil in the learning situation
- b. The pupils' ability in the particular subject.
- c. The overall ability of the pupil
- d. The behaviour of the pupil
- e. The quality and the tidiness of the work presented
- f. The interest displayed by the pupil in the subject

These findings led them to conclude: 'Although consideration of intellectual or cognitive qualities is large, teachers are influenced by other factors; in particular the extent of pupil commitment and interest in the subject appears to be significant. This raises the question as to whether the influence of motivational factors alongside cognitive factors means that there

is more likelihood that un-conforming, difficult pupils may deserve higher ratings than they get' (ibid p. 159).

Most of the literature in this area, however, comes from the USA probably because teacher grading has been used extensively there, and many of the decisions about pupils' later academic and professional development are based on it.

Pilcher (1994) claims that the grading equation for teachers is potentially a function of three variables:

$$\text{Student Grade} = f[\text{cognitive ability, effort, attitude}]$$

Cognitive ability is assessed by graded pupil work. However, when teachers grade pupils, they consider the extent to which the content was mastered in relation to ability level. Effort is characterised by the number of assignments completed; number of assignments submitted on time; the extra time spent mastering particular tasks; and to some degree the extent to which a pupil strives to be an overachiever. Grading based on effort tends to motivate pupils. This finding supports Natrielo & Dornsbusch (1984) who investigated grading factors that made pupils work harder. They showed that pupils worked harder when the results of the work and effort became a significant part of the course grade. The rewards and punishments pupils receive as a consequence of grades seem to be the source of motivation for most pupils. Attitude is represented by pupils' feeling about the subject matter, pupils' attitude toward their teachers, and the enthusiasm pupils project in class.

Pilcher (1994) demonstrated that grades represent a perceived overall picture of a pupil affected by two more factors than academic attainment, -here mentioned as cognitive ability. The other two factors, effort and attitude, potentially include every motivational and affective characteristic, however they are not clearly specified. Also, the presentation of grades as the solution of an equation implies that the factors presented affect grading in a summative way. However, how and to what extent each factor contributes to grades is not demonstrated.

The issue of whether grades solely represent attainment or other pupil characteristics was also investigated by Blount (1997). He carried out an interview study of 58 teachers of all levels, and found out that teachers did not acknowledge directly that a grade was dependent on their judgment, even though pupil effort, behaviour, and attitude were clearly part of the grading process. Although they did not see grades as a value judgment this is not because they did not practice it. These teachers were clear that they considered pupil effort in the grading process, even though according to Blount (1997) the authorities consider including effort in the grade as contamination. In practice however these teachers reward pupils who try, seeking ways to raise their grades. In the same study teachers seemed in favour of grades mainly for motivational reasons. The majority of teachers (65%) said that they would assign grades even if it was solely up to them. They all regarded grades as giving feedback on pupils' work. Another important finding was that teachers do not like failing pupils. They claimed that they would do anything they could not to fail any pupils. This study concludes with a short quotation: "Like many teachers when I entered teaching I thought that grading was an aspect of teaching I was sure I could handle. I soon discovered grading students fairly and accurately demanded that I balance justice and mercy in a way that made me understand for the first time how tough a job God has".

Blount (1997) as well Pilcher (1994) showed that teachers are influenced in their grading by factors other than attainment, although according to Blount (1997) teachers do not seem to be aware of this. The studies highlight some factors, but they did not proceed into a deeper description of the relative weight of each of these factors on grading. Moreover, they do not describe how teachers assess academic attainment.

Assessment of the academic attainment of pupils was investigated by Stiggins & Bridgeford (1985). They demonstrated that teachers base their grading on teacher made objective tests, published tests, and performance assessment both structured and unstructured. By the term structured performance assessment they mean planned and systematically designed assessments to include pre-specified purposes, exercises, observations, and scoring procedures. Unstructured performance assessment arises spontaneously from the naturally occurring classroom environment and leads the teacher to a judgment about an individual

pupil's level of development. Teachers appeared to rely strongly on both types of performance assessment for grading. Teacher made tests also appeared to play an important role. Published tests appeared to play the smallest role. Teachers appeared to express much more concern regarding the use of tests, in comparison with performance assessment about which they expressed much less concern. The research demonstrated that teachers constantly use performance assessment for grading but also that they appear relatively comfortable in using performance assessment spontaneously. In this study they seemed to rely more on the less valid and reliable methods of assessment, like unstructured performance assessment than on the more objective methods like tests.

2.2.1.3. Differences among teachers in grading

The studies presented above, although revealing that teachers grading is affected by factors other than academic attainment and that assessment of academic attainment is largely based on performance assessment, did not demonstrate any differences in teachers' grading practices. In other words, the question of whether different teachers may be affected by different factors in grade assignment, or to a different extent by the same factors was not investigated. Other studies have examined these issues in more detail.

Stiggins, Frisbie, & Griswold (1989) conducted a case study of 15 high school teachers' grading practices. They found that when assigning grades teachers considered test scores as well as ability level and the amount of effort applied by pupils in class. Their first finding showed that achievement, learning ability, attitude, motivation effort and interest, were the pupils characteristics that were incorporated in grades. No discrepancies in grading practices were found among teachers as far as the pupil characteristics were concerned. Four methods of obtaining grading data were examined: written assignments (with discrepancies between teachers on the weight they placed on them), written tests (no discrepancies) and questioning (no discrepancies: no teachers depended on them for collection of grading data) and performance in certain activities like laboratories etc (discrepancies). Teachers also seemed to differ on the amount of grading data gathered, and on the quality of it. It is interesting that

dependability of data including validity and reliability was virtually never systematically addressed by the teachers in the sample. Teachers also appeared not to follow the district grading policies and they appeared not to use the same methods of setting grade cut-off scores.

The interpretation and discussion of these findings lead the researchers to the conclusion that most of the discrepancies that appeared were related to the lack of training of teachers on assessment and grading practices. It appeared that teachers never used their professional preparation (pre-service or in-service) as the source of the grading procedures they used. Rather, strategies evolved from their experience as pupils and /or from recommendations of colleagues. They concluded that teachers would benefit from additional training. Also, the questions that their study raised as an agenda for research on grading practices demonstrated how little we know about them. They acknowledged that the small sample of teachers (15) restricted the generalisability of their results and they presented their findings mainly as an agenda for further research.

Cizek & Fitzgerald (1995) attempted to find out if there were differences in grading practices in the grading practices of teachers in the USA. They demonstrated that teachers seem to differ first of all in the frequency and source of assessments. Some teachers gave major and minor tests more frequently than others. Teachers also appeared to differ in the extent to which they used self developed and publishers' tests. The factors that they considered when assigning grades to assignments, tests, etc, also differed. For instance although the majority (83.8%) agreed that the final grade represented the percentage of correct responses, other factors like difficulty of the test, how the class performed, individual pupil ability, and effort seemed to play a role in the grading of assignments, tests, etc. Teachers also seemed to differ in the sources of information they used to assign final grades for a marking period. They seemed to take into account both formal and informal achievement measures without agreement over all. Therefore, although a high percentage (89%) appeared to take into account tests, assignments etc, informal achievement-related measures appeared to be taken into account by large percentages of teachers. For instance 61% stated that they took into account impressions of effort, conduct, teamwork etc. The discrepancies were even greater when teachers described what grades represent. Grades were thought to represent individual

pupils achievement of fixed classroom goals for 34.9% of the sample, individual pupil achievement on fixed classroom goals but considering overall classroom performance for 18.6% of the sample, a combination of group and individual achievement on fixed classroom goals for 28.7% of the sample, and individual pupil achievement on individualized goals for 17.8% of the sample. Differences were found on the comparison between the grading practices used and the practices that they thought most other teachers used. A difference was also found on their knowledge or not of the districts' grading policy.

The lack of training in assessment practices again was implied by the authors as the main reason for their findings. They indicated the need for a comparative replication of this study, in which the sample would consist of teachers who have had graduate preparation in assessment, which might provide interesting insights into the effectiveness (or ineffectiveness) of such training on teachers assessment practices.

In a more recent paper Cizek (1996) elaborated on what the grading practices found in the previously presented study tell us. It seems that while educators consider a variety of factors in assigning a final grade, they combine the information in idiosyncratic ways: Not only do different teachers use different factors, they also combine the elements in different proportions within classrooms. The factors considered in arriving at a final grade are weighted in ways that are most advantageous for each pupil. Teachers seem to follow the advice our parents gave us. If you can't say something nice about someone, don't say it at all. In most cases they are able to find something good to say. Although our parents may be happy that we are following their advice, the parents of the pupils may not be so happy. They assume grades indicate achievement or content mastery. Pupils themselves are unlikely to be sophisticated enough to understand that their grades are complex composites. Instead they assume -as nearly everyone else does- that their A's and B's mean that they have successfully mastered rigorous academic work.

Wood (1990) investigated the grading practices of school teachers and attempted to investigate differences between primary and secondary teachers as well as differences between 'performance teachers' (music, art, physical education). The findings showed that, although

differences among teachers existed, in general teachers tended to give higher grades more than lower (55% of their pupils received As and Bs while 13-15% received the D-F range on an A to F scale). 'Performance teachers' tended to assign more As and Bs (70%) than teachers of more traditionally academic classes (54%). The pupils' demonstrated achievement on the course's academic objectives (course work, project grades, daily work, etc) was the major factor reported to contribute to the grades of the great majority of teachers surveyed. 'Completion of assigned homework and classwork' was the second most heavily weighted factor, 'improvement or working up to potential' and 'class participation/behaviour' were weighted to a considerably lesser degree by the typical teacher. Attitudes towards class and school, attendance, and completion of extra credit assignments were reported to carry little weight. Primary teachers reported weighting classwork and homework only about as half as heavily as secondary teachers, while performance class teachers tended to weight achievement of academic objectives only half as much as other teachers. Participation and behaviour in class, pupil attitudes and improvement were more heavily weighted by performance teachers than most other teachers. The most commonly used approaches for judging whether the teaching objectives were met were in order: oral questions (41%), in class seatwork (38%), filling in or completion of questions (28%), observation of pupil effort and motivation (22%), and problem questions (21%). Homework assignments, matching questions and short essay questions were chosen by 15 to 17%. When teachers were asked which procedures were most important when they had to make out report cards, the following were reported most frequently: seatwork (40%), filling in /completion questions (31%), homework (26%) and matching questions (18%). Observation of effort was only reported by 15%. They showed that teachers were comfortable with their grading procedures and believed grades should reflect how much pupils have learned, and homework and effort. They were pro-test but did not necessarily believe that grades were more valid when based mostly on test scores. Few believed that standardized tests would improve education. Using different grading systems for different pupils was viewed differently by different teachers.

An attempt to investigate (among others) the relative weight that teachers give to grading criteria within their own classroom was attempted by Nava & Loyd (1992). They presented

827 elementary and high school teachers from 18 schools with a list of 35 grading criteria and asked them to rate them according to the degree that each one should be included in grading along a 4-point scale consisting of the statements: 'definitely include', 'probably include', 'probably not include' and 'definitely not include'. They showed that more than 50% of the teachers indicated that they gave some weight to such criteria as unit test exercises done in class, announced quizzes, homework/assignments, and effort. Similarly approximately 40% of teachers indicated that they did not give any weight at all to such criteria as inattention in class, book reports, consideration for other pupils and regular attendance. Similarly, when they were asked which criteria should be included in grading, the most important criteria appeared to be unit tests, announced quizzes, essays or term papers, effort and semester tests. The authors stressed the fact that four of five criteria are achievement related and only one, effort is not. Teachers also reported the criteria that they would 'probably include'. These were classroom related criteria such as projects outside the class, homework/assignments, book reports, participation in class, and exercises done in class. Criteria they would 'probably not include' were spelling on papers or tests other than those on spelling, grammar on papers other than English, handwriting neatness on papers or tests other than those on writing, consideration for other pupils and aggressive/ inappropriate behaviour. Finally, teachers reported that they would 'definitely not include pupils' socioeconomic status, gender, or parents' involvement in either class activities or school activities. A factor analysis of teachers' responses to the questionnaire revealed 4 underlying dimensions of grading criteria. First (factor 1) is 'classroom behaviour and characteristics which are perceived by teachers to enhance or deter the learning process' (improvement during the grading period, improvement from one grading period to another, effort of pupil, participation in class and in group discussions, and deterring characteristics such as inattention in class). The second underlying dimension of grading criteria (factor 2) was named 'assessment of achievement and academic content' (unit tests, semester tests, announced quizzes, homework/assignments, etc) Factor 3 was 'pupil behaviours and non content academic skills (spelling on papers/tests other than those in spelling, grammar on papers or tests other than those in English, handwriting on papers/tests other than those in writing etc). Factor 4 was 'factors and pupil traits that teachers consider as external to the classroom (parents' involvement in school activities, parents' involvement in classroom activities, pupils' gender and pupils'

socioeconomic status.

2.2.2. Pupils’ affective characteristics appreciated by teachers

A more detailed description of the non-achievement criteria which may potentially affect grading can be found in research in the area of assessment of the affective characteristics of pupils. This research assumes that if one of the purposes of schooling is the ‘character building’ of pupils, then, the affective characteristics of pupils should be assessed. In fact some schools in their reports, provide information to parents about the affective characteristics of pupils. The fact that the evidence suggests that affective characteristics influence grading of achievement makes these studies more interesting.

Black and Dockrell carried out 2 studies (Black & Dockrell, 1980; Dockrell & Black, 1980) investigating the non cognitive, affective traits that teachers assess. The department of the school where the first study took place had a system where the following five required traits were supposed to be assessed by teachers.

Table 2.1

Pupils’ non cognitive characteristics assessed by teachers (Black & Dockrell, 1980; Dockrell & Black, 1980)	
INTEREST/ ATTENTION Is interested in the subject Pays attention in the Class Complies with teachers instructions Is enthusiastic Contributes to work of the class Is conscientious	GENERAL CLASS BEHAVIOUR Disrupts the work of the class Has a positive influence on other pupils Is willing to share his tools Is individualistic Is an extrovert Shows tolerance A reliable pupil
PERSEVERANCE Has perseverance Applies Effort	CONFIDENCE Shows confidence Is able to communicate easily with teachers and pupils Displays leadership Shy

Pupils' non cognitive characteristics assessed by teachers (Black & Dockrell, 1980; Dockrell & Black, 1980)	
METHOD/TIDINESS Is tidy Has the ability to recognise time saving steps	

Teachers in the department were asked to rate their pupils on these descriptive statements. A factor analysis of the ratings did not yield 5 factors one for each of the traits that they were. Instead two factors emerged. The first was named confidence/leadership and the second dependability including much of what teachers called general class behaviour. The analysis showed that teachers, although they think that they assess pupils on a number of personality traits (shown above), they actually assessed them on only two.

In their second study (Black & Dockrell, 1980) asked teachers to rate their pupils on a large number of characteristics (27) and add any which might be missing. In the school teachers did not teach more than one or two subjects, so department comparisons in the traits that they assessed could be made. Teacher ratings of their pupils on a number of characteristics were factor analysed. The analyses were made department by department. There were two factors running across all departments which were labelled conscientiousness/perseverance and confidence. In addition there were, in some departments, additional factors. The history teachers seemed to be assessing 'originality', chemistry and physical education teachers seemed to be assessing 'willingness to share', in physics the additional factor was 'relations with peers' and in business studies 'attentiveness'.

Other studies reported by Dockrell (1988) have found similar factors. Greaney (1974) found four factors, but the two major ones 'satisfactory classroom behaviour' and 'group leadership' accounted for 28 per cent of the variance. Airasian, Kellaghan and Madaus (1977) reported that in each of four related studies two factors, a classroom behaviour factor and a social behaviour factor accounted for 75 per cent of the variance.

2.2.3. Training in Assessment. Does it make any difference?

Teacher training in assessment has been repeatedly suggested as the foundation on which a better assessment system could be based (Cizek & Fitzgerald, 1995; Gipps, 1994; Sadler, 1987; Stiggins, Frisbie, & Griswold, 1989). Relatively early studies have demonstrated that in the USA the majority of teachers had at least some assessment training during their teacher training (Goslin, 1967; Newman, 1982). More recent and detailed studies however report the inadequacy of teacher training in assessment practices and measurement. For instance Schafer & Lissitz (1987) investigated 707 institutions which trained the great majority of teachers graduating each year, and found that while variation exists on a programme by programme basis, a significant proportion of school personnel do not receive much training in assessment methods. With the exception of school counselling and special education programmes, 49% or more of each of the programmes surveyed did not require for certification a formal course in measurement. Comparing their findings with earlier work they prophetically concluded: 'We hope that in fifteen years there is not yet another survey revealing little progress since the previous study as ours has done' (Schafer & Lissitz, 1987 p.62) Not fifteen but 5 years later Stiggins & Conklin (1992) studied the assessment training requirements of 27 undergraduate and graduate teacher training programmes that produced 75% of all teachers trained in the Pacific Northwest (in USA). They found that only six required measurement courses. Teachers on the other hand felt frustrated by the lack of training and support, and uncomfortable with their assessment practices. In short they would welcome relevant and useful training or assistance (Stiggins & Bridgeford, 1985).

The lack of assessment literacy is not only a characteristic of teachers and educators but also a general phenomenon of society. For instance, what do parents understand when they receive their children's grades? Stiggins (1991) comments that cynics might argue that the public is kept illiterate on assessment issues in order to minimize the scrutiny of quality of the educational outcomes. However, even if this is not the case, the fact remains that the public remains uninformed about assessment issues and he believes that the assessment community should take some action to see that the long-standing embarrassment of assessment illiteracy is corrected. Hills (1991) attributes teachers' lack of training in assessment not to

unavailability of courses, but to an apathy concerning assessment and testing. He claims that almost every school of education offers courses in student evaluation procedures but the problem is that no one takes them. Indeed the research presented here only demonstrates that teacher training does not require assessment courses, not that such courses are not available on an optional basis. Hills (1991) analyses apathy concerning grading and testing with reference to a general apathy which exists within the American educational system. Most pupils realise few benefits from working hard while at school and the labour market fails to reward effort and achievement in high school and the (high school) peer group actively discourages academic effort. He concluded that there is a clear analogy between student's apathy toward learning and teachers' apathy toward the competent use of the technical skills involved in adequate testing, evaluation and grading. The reason that teachers do not learn these skills and use them consistently is that their colleagues and supervisors, as well as the parents of their students, are apathetic about evaluation. (This raises the question: Is apathy as described by Hills (1991) a phenomenon which exists only in American education, or does it apply to all western societies?)

What is the effect of assessment training courses on teachers? Do they make a difference to their grading practices? Brookhart (1993) presented teachers in a master's degree programme with simulated scenarios to determine what grading behaviours they would exhibit. Teachers with and without measurement training completed the instrument, which consisted of multiple choices on potential actions teachers take in different grading situations. The instrument also included an open ended question that asked teachers to explain the reasons for their choice. Brookhart's findings suggest that teachers place more emphasis on assigning grades to reward students for an amount of work performed than on considering grades as indicators of achievement constructs. She stated that teachers consistently used the words perform, work, and learn. In other words, a grade is considered the pay or reward a student receives for his or her performance. Brookhart implied that the construction of this particular image of grades by teachers determines the grading practices they implement in their classrooms. It is also interesting to examine the differences between trained and non trained teachers. First of all teachers with and without measurement instruction did not differ in the level of thinking about grade interpretation and use. They appeared to differ however in what they thought about the

meaning of grades. Describing the construct grade, teachers with measurement instruction were much less likely than those without to talk about a self-referenced meaning. All of the ability comments and two thirds of the improvement comments came from teachers without measurement instruction. This implies that teachers without measurement instruction are more likely to grade taking into account the motivating effects of grades. Teachers with measurement instruction were much more likely to look for confirming evidence to use a particular grade than the ones without. The conclusion drawn from these findings is that measurement instruction makes a difference in how teachers think about the meaning of grade but not the amount or kind of thinking they do about the value implications or consistency of grades.

Ten years before Brookhart's study, Newman & Stallings (1982) surveyed the measurement backgrounds and skills of 294 teachers in different states in the USA. They showed first of all that 75% of their sample had taken at least one training course on measurement. Although those who had taken such a course did better than those who did not on a measuring instrument neither group did very well. It seemed therefore that training made some difference but that overall the impact was low.

The findings of the studies showing small differences in grading practices between teachers who have undertaken assessment training courses and those who have not can be interpreted with reference to the quality of those courses. Stiggins (1988) claims that three weeks of dealing with assessment as part of courses in general educational psychology or in specific methods courses are inadequate. Teachers need to learn about and become sensitive to the wide variety of purposes of classroom assessment. These purposes include individual and group needs; selection, placement, and grouping for instructional purposes; controlling and motivating students; communicating achievement and other expectations; evaluating instructional procedures; and providing test-taking experience. Teachers need to be trained in and required to demonstrate the ability to use all assessment methods that are relevant at the grade level and in the subjects that they plan to teach. These methods include the use of teacher-developed paper and pencil tests, paper and pencil tests provided by text book publishers, performance assessments, oral questioning, standardised tests, group assessment

methods, the opinion of others, homework and seatwork, peer and self-assessments, student records, and assessment of relevant thinking and problem solving skills. In addition teachers must be conversant with various tools for assessing affective outcomes. Teachers also need to know how and why to choose among these measurement tools. The criteria for choosing include the match between instructional objectives (content and cognitive levels) and the focus of the assessment, the time required for and the ease of developing an assessment, the time required for and the ease of scoring an assessment, administration time, degree of objectivity, issues of test security and the applicability of computer technology to an assessment. Also, in addition to letter grades and more formal written feedback, teachers need to know how to use key features of oral and nonverbal feedback. They need to be sensitive to students' and parents' individual needs for feedback, to know the beneficial effects of appropriate feedback and the damage that can be caused by inappropriate feedback. Finally, teachers need to know the relationship between their classroom practices and the assessment policies of their school districts.

2.3. CONCLUSIONS DRAWN FROM THE LITERATURE

The first conclusion that can be drawn from the studies presented above is that little or no differences in assessment and grading are found in the grading practices of teachers over time. The same criticisms which were made of teachers in the beginning of the century are still applicable at the end of the century (Robinson, 1997). Although education has been studied in greater depth and education systems have changed a lot, grading practices seem little changed. Grades which are supposed to represent only the educational attainment of pupils appear to be affected by many more factors. An attempt to categorise the most common factors that in the research appear to affect grading is outlined below:

-Educational attainment or achievement

Educational attainment represents the extent to which the material has been adopted by the pupils. It is usually assessed by teacher made objective tests, published tests, and performance assessment both structured and unstructured (Stiggins & Bridgeford, 1985). It is also assessed

by written assignments (classwork and homework) and questioning. However, there does not appear to be a consensus among teachers regarding the methods they use to assess educational attainment, nor on the weight they place on each one of these methods (Stiggins, Frisbie, & Griswold, 1989).

-Motivation

Pupil motivation and effort has been repeatedly shown to affect grading. (Cizek & Fitzgerald, 1995; Dockrell & Black, 1980; Blount, 1997; Pilcher, 1994; Stiggins, Frisbie, & Griswold, 1989). Although effort cannot be characterised as a motive, it is the product of motivation. Behind the effort that a pupil makes there is always some kind of motivation regardless of whether this is intrinsic, extrinsic, fear of punishment etc. Interest is another motive often mentioned in the literature to affect grading (Dockrell & Black, 1980; Stiggins, Frisbie, & Griswold, 1989; Wood & Naphthali, 1975). This is the expression of intrinsic motivation (Deci, 1975). If pupils are intrinsically motivated by expressing interest in a particular subject or school learning in general they are more likely to be given higher grades. It is interesting that in the literature the only kind of motivation influencing grading is interest. Extrinsic and other motivations are not mentioned.

-Individual differences.

Ability of the pupil has been repeatedly repeated as one of the characteristics that teachers take into account when grading (Cizek & Fitzgerald, 1995; Stiggins, Frisbie, & Griswold, 1989; Wood & Naphthali, 1975). What is meant by the terms 'ability', 'cognitive ability', 'overall ability' just to mention a few of the terms used in the literature is not well defined. Achievement or attainment are not implied as these are usually mentioned as separate factors. It seems therefore that teachers have not completely dismissed the psychometric tradition which considers some pupils to be more able than others in their assessment practices. According to the research, pupils who are thought by their teachers to be more able are more likely to get higher grades.

-Behaviour.

Pupils' behaviour although it is not directly related to the academic achievement of pupils appears to affect teachers' grading (Wood & Naphali, 1975; Greaney, 1974; Airasian, Kellaghan and Madaus, 1977; Blount, 1997) Hills (1991) argues that this phenomenon distorts even further the reliability of grades. If a grade is altered as a means of punishment, it no longer accurately reflects academic achievement, and its proper meaning is destroyed. According to the literature teachers tend to take account of pupil behaviour in grades.

A number of other characteristics are also mentioned in the literature to affect grading but not as frequently as the above. The framework provided by the findings of the studies presented in this chapter will provide the basis for the research questions of the current study. First, a brief presentation of the Greek educational and assessment system with the relevance to studies carried out in Greece will take place.

CHAPTER 3

ASSESSMENT AND GRADING WITHIN THE GREEK EDUCATIONAL SYSTEM

3.1. THE GREEK EDUCATIONAL SYSTEM

The contemporary education system is legally based on the Greek Constitution of 1975. Article 16 prescribes the major provisions: education is declared to constitute a ‘fundamental state objective’ as well as ‘a state obligation’ it is ‘free’ and ‘all the Greeks have the right to it’, while it is also prescribed that the years of compulsory schooling may not be less than nine.

Greek education is structured on three successive levels: Primary (nursery and primary school), secondary (lower and upper secondary school - ‘gymnasium’ and ‘lyceum’- and tertiary education (university and non university level) (OECD, 1997).

The Greek education system is highly centralised, headed by the Ministry of Education and Religions that is the main centre for decision-making and executing educational policy that is expressed by directives issued by the Government in the form of parliamentary laws, executive acts (presidential decrees and ministerial decisions) and circulars, regulating almost all issues on curriculum and assessment, personnel administration, school operation and expenditure. Some of these important responsibilities are distributed to other public organisations and bodies whose decisions are under ministerial approval, such as the Pedagogical Institute, and the school advisers. The former develops the primary and secondary school curricula for each subject for each year group and prepares the pupils’ text books and guides, whose nationwide, exclusive use is mandatory (Masialas, Flouris, & Cassotakis, 1988; OECD, 1997; Voutsinos, 1990). The latter groups provide pedagogical support to teachers and ensure that the prescribed curricula and textbooks are followed (Law 1304/1982,).

The primary and secondary curricula are centrally designed and mandated. A definition of the school curriculum is offered by educational law 1566/1985:

- The curricula are complete guides of the education practice, and they mainly include:
- clearly formulated, for each subject objectives, in the context of the general and specific, per level, aims of education.
 - Content to be taught, chosen according to the aim of subject arranged properly in unities and topics.
 - Guiding direction for the methods and the means of instruction at every unity or topic
- (Law 1566/1985,)

As can be seen the Greek curricula prescribe fully the teaching method, while the quantity of teaching time allocated to each subject is also designated by the state (MoE, 1992). Essential supplements to the curricula are the textbooks for pupils and teachers, which, as the law suggests are written in accordance with the curricula and distributed free. The state mandates the exclusive use of single textbooks and the Greek teacher -who is a civil servant- has to follow them faithfully. In practice, the one textbook rule dominates Greek education, even when the teacher does not like particular textbooks, partly because any extra performance and initiative is not rewarded while his/her low salary does not encourage extra effort (OECD, 1997). As a result the teaching of a subject is usually highly dependent on the corresponding textbook.

Despite the revision of many curricula and textbooks in the last two decades, they are still said to be outdated, neglecting the issues and needs of modern life. As for the teaching from these textbooks, this largely maintained its traditional teacher-centred character, often involving memorisation of content (OECD, 1997; Kondogiannopoulou-Polydorides, 1994). Generally, the whole system is said to be still marked by an authoritarian style and formalistic character (OECD, 1997).

3.2 TEACHERS' BACKGROUND AND EDUCATION

The great majority of Greek primary school teachers come from the working and rural classes (Makrinioti, 1982; Papastamatis, 1988; Starida, 1990). Psaharopoulos & Kazamias, (1985) report that in 1975-6 75% of the students of a pedagogical Academy came from the lower social classes, namely their father was either a farmer, or manual worker, and this percentage is not only a temporal phenomenon of that academic year. In general, Greek teachers come

from the rural and working classes. This happens for two reasons. First, because the profession is deemed as providing middle class status, but it does not offer high salary which may attract higher and middle class children (Mavromatis, 1995). Since the majority of primary teachers come from working or rural classes it is likely that they will express traditional attitudes and beliefs about values and ideas prevailing in their social class background. Thus, trends of traditionalism, obedience, authoritarianism and discipline are some of the main features of the profession (Papastamatis, 1988; Masialas, Flouris, & Cassotakis, 1988)

Up to 1988, in Greece, primary school teachers were trained in one of the 15 state Pedagogical Academies. Candidates for admission required the secondary school leaving certificate and took an entrance examination. After a two year course and the passing of written examinations, a certificate was awarded. The academies' syllabus was oriented towards the teaching of primary curriculum subjects. All pedagogical academies offered the same syllabuses prescribed by the ministry of education. The opportunities for initial teaching training practice and for continuing professional development through the interaction of theory and practice was very limited. Few teachers had the opportunity to improve their professional skills and to update knowledge of their special subjects. There was a wide range of subjects in the curriculum with few options and the way of teaching was mainly verbal. There was no continuous supervised teaching practice. Students may watch demonstration lessons in the experimental schools associated with the academies but may not actually practice teaching adequately (Mavromatis, 1995) .

The primary teachers' initial training institutions, Pedagogical Academies were gradually replaced with the establishment of Pedagogic Departments of Universities. These offer eight semester courses at University Level. In 1990 eight Pedagogical Departments were operating while all Pedagogical academies had terminated their operation. At the same time the first Pedagogic Departments' graduates started working in schools.

3.3 ASSESSMENT IN THE GREEK PRIMARY SCHOOL

The roots of the present Greek assessment system lie in the past two decades. Traditionally, in the primary school grading was numerical using the scale 1-10. At the end of each term (December, April and June) pupils of all year groups received a report with their grades in each of the taught subjects. In the last two (5th and 6th) year groups pupils used to sit written examinations in all subjects, devised by the class teacher, based on the material taught during the year. At the end of the year a calculation of the overall average of those grades gave the final grade of the pupil. If that grade was below 5 the pupil had to repeat that year group. In the report there was also mention of the behaviour of the pupil in each term and the overall behaviour of the child throughout the school year..

On 29.11.80 a decree by the deputy minister of education was published titled: “Unobstructed promotion of students of the Primary school and the abolition of numerical grading”, terminated the long tradition of numerical grading in primary school and replaced grades with letters which depicted the level of academic progress: Very Good (A), Good (B), and Quite Good (C),

According to Tsakalides (1995) maybe for the first time it has been accepted in an official state document that the inadequacies of the pupil may not be due to him/her, and his/her right to receive personal help even private tutoring is recognised although this was first legislated for in 1988.

In 1981 a change of government led to a number of changes in education. As far as assessment in the primary school was concerned, in September 1982 new books for the Primary school for several subjects which included official tests called ‘criteria of assessment’ were published. In 1982 in addition to pupils’ books the ministry published teachers’ books with advice (or directions) on every detail of teaching, such as the aims of each chapter, teaching methodology, comprehension questions to be asked in Greek, or additional exercises in maths, etc. A teacher book was published for almost all of the main subjects of all year groups. In 1982 the ministry published leaflets with revision tests to assess

pupils' comprehension of the material taught in certain units of chapters named 'criteria of assessment'. One leaflet is given to each pupil at the beginning of the school year. This is supposed to be kept at school. These tests cover the main subjects, Greek, mathematics, science. Prior to this, it was part of teachers' work to prepare such tests. These tests taken by all pupils in all Greek primary schools should not be confused with nationwide assessments as carried out in the UK or mass administered criterion referenced or psychometric tests as used in the USA since pupils' attainment in them is not used for any differentiation purpose. From their name (assessment criteria) and their content (they include tasks similar to the ones that pupils have done in previous chapters) one might conclude that they are to help teachers assess the degree that each of their pupils has understood the material taught in the previous chapters. However, pupils' attainment in those tests should be a key factor for the teacher to consider in deciding the grade that s/he will give to pupils. Therefore, pupils take these tests quite seriously. They are not told when they will be examined in these tests. However the format of the chapter to which a test will be given is transparent as that chapter includes only the material to be taught and omits exercises which are normally included.

In 1986 there was a presentational change of great importance. The pupil end of year reports were renamed 'certificates of progress' without mentioning a characterisation of attainment or behaviour. However, the pupils' attainment with the letters (A,B,C) was still kept in the school records. Parents who wished to know this could be informed. In other words, children and parents did not receive any formal information (in the form of grades either numerical or verbal characterisations) about attainment or behaviour.

In 1990 after two years of political instability when no important decisions in education were taken, the elections were won by the conservative 'New Democracy' party which implemented its policy on educational matters. The 462/91 Decree (Decree, 1991) regulated assessment and reinforcement issues in the primary school. According to this:

"Assessment of the attainment of the pupil in the primary school constitutes an integral part of teaching. It takes place during every day teaching, as well as after the completion of teaching of general units or areas of knowledge. In the 5th and the 6th year group in addition

to the above forms of assessment in every subject except Aesthetics, Physical Education and Music, during the last twenty days of every term, without the interruption of the lessons or a change of time table, there is a written test based on the basic elements of the material that has been taught during that term. The general result of every written revision test is discussed in detail in the classroom and each individual pupil's result will be co-estimated by the teacher in the final termly assessment of the pupil.

For the assessment of the pupil's attainment several methods and techniques are used e.g:

- An oral examination
- Written work and written tests

The assessment data from every term will become the subject of a pedagogical exchange of ideas in a meeting of the teachers of the school. Afterwards, the parents of each class are invited by the teacher, with the agreement of the head teacher, to a special meeting, where the learning problems of the pupils are discussed.

Every term the parents or the guardians of the pupils will receive a report of the 'progress of the pupil'. In the 1st year group the first 'report of progress' is given at the end of the second term.

At the end of each teaching year the pupils of the 1st, 2nd, 3rd, 4th and 5th year groups receive a 'certificate of study'. For the pupils of the 6th year group a 'certificate of study' is published which is sent direct to the Secondary school in which the pupils will be enrolled. On the certificates which are given to the pupils there is an indication that they have passed. In the 2nd year group the verbal characterisation is stated as described before. In the 3rd, 4th, 5th and 6th year group the average of the numerical grading (which is reintroduced) is stated, and the verbal characterisation which corresponds to this.

The scale of assessment in the 1st and the 2nd year groups includes the verbal characterisations: Excellent (A) when the pupil has attained perfectly to demands of the subject, Very Good (B) when the pupil has achieved to a great extent to the demands of the subject, Good (C) when the pupil has attained satisfactorily the demands of the subject, Quite Good (D) when the pupil basically corresponds to the demands of the subject. The scale of

assessment in the 3rd, 4th, 5th and 6th year groups is verbal and numerical and is as follows. Excellent (9-10), Very Good (7-8), Good (5-6) and Quite Good. The annual attainment grade of the pupils in the 3rd, 4th, 5th and 6th year groups per subject is the mean of the grades of the three terms. The General Average of the assessment is the quotient obtained by the division of the sum of the grades of the annual attainment in all subjects by the sum of the taught subjects. All the pupils who have attended school for more than half of the academic year pass from one year group to the next”.

According to this act therefore most of the reforms regarding assessment established by the socialist government were abolished. Numerical grading for year groups 3 to 6 as well as written examinations at the end of the school year for year groups 5 and 6 were reintroduced. These measures were fiercely criticised by academics (Mavrogiorgos, 1993; Papakonstantinou, 1993).

In Autumn of 1993 the conservatives lost the elections, the socialists were returned to power and abolished the changes that took place during the conservative administration. Since the school year had already begun the changes took place during the next academic year (1994). During the first term of the 1994-5 academic year (end of November 1994), schools received directions from the ministry of education (Φ.7/167/Γ1/1058) which abolished the previously mentioned changes. A new assessment system was introduced and, in January 1995 the decree which to a great degree still regulates assessment in Greek primary Education was published in the newspaper of the Government (Decree, 1995). The main parts of this decree per subject are the following:

-Assessment Process

“1. Assessment of the pupil during his/her attendance at the primary school takes place by the teacher or the teachers of the class and is based on:

- a. Everyday oral examination and the overall participation of the pupil in the teaching and learning process and in the other school activities.
- b. The results of his/her attainment in the criteria of assessment, (tests) which constitute a crucial element of the curriculum and are included in the teaching material.

To the 'assessment criteria' which are directed to the pupils of the year groups 5 and 6 may be added questions of more complexity, which may refer to more than one general unit.

c. The results of the work that the pupil carries out at home or at school.

2. In addition to the integrated teaching material, tests can be devised by the teacher of the class when he or she thinks it is necessary.

In every case these tests should be integrated into the natural flow of the teaching-learning process, including questions of a variety of types, and cover in addition to consolidation of previous units.

3. During the first term of the academic year, pupils year groups 5 and 6 of the primary school should carry out at least one project in a subject of his/her interest. These projects should be handed in during the last month of the school year and be presented to the class or within the framework of an exhibition of the class or the school.

-Descriptive Assessment

Descriptive assessment is established for all pupils in all year groups of the primary school. Descriptive assessment enables teachers to inform in detail both the pupil and his/her parents on the results of his/her efforts at school, on their abilities and talents, as well as on any inadequacies.

-Scale of assessment

In the 1st and the 2nd year groups only descriptive assessment takes place. In the 3rd and 4th year group in addition to descriptive assessment a scale is used as follows: excellent (A), very good (B), good (C) and quite good (D). These grades should be used both in the pupil records kept at school and the reports of progress that pupils receive at the end of each term. In the last two year groups the scale used is both numerical and verbal, as follows: Excellent (9-10), very good (7-8) and good (5-6). Pupils who face serious learning difficulties are graded with 'quite good'.

After these guidelines were introduced following complaints and questions from teachers

who did not know what the descriptive assessments were, new directions from the ministry of education (Circular, 1995a; Circular, 1995b) changed the compulsory nature of descriptive assessment and stressed that it should be implemented on a voluntary basis. In other words descriptive assessment was abolished before it was implemented. The projects which were supposed to be undertaken by individual pupils according to the act, became group projects which were abolished the academic year after (Circular, 1995c; Circular, 1995d). Therefore at the time of the study the criteria for grading which according to the law primary school teachers should take into account were: Pupil participation in the classroom, tests, formal and informal, and attainment assessed by homework and class work.

From the above brief description of the changes in the assessment system that took place in a period of less than 20 years, it can easily be seen that assessment in the Greek primary school changed regularly when the government or even the minister of education changed. Between 1979 and 1995 final examinations were abolished, numerical grades were transformed to verbal characterisations, they were abolished, reintroduced, examinations were reintroduced, grades were partially re-abolished, examinations were re-abolished, descriptive assessment was introduced and abolished before being implemented, and projects introduced as part of the assessment process, changed to group work, and finally abolished. Teachers had to attempt to implement all these changes into their every day teaching. In the literature review it was shown that teachers' assessment and grading was varying and unpredictable in relatively more decentralised and stable educational systems in the UK and USA. The question is what do teachers do in relation to assessment and grading in a very centralised and frequently changing educational system?

3.3.1. Studies concerned with assessment and grading in the Greek primary school

Educational research in Greece, although it has been rapidly developing in recent years is not as developed as in the UK and USA. Most specialised educational books are for university students. Much of their content covers basic issues and theories and does not refer to recent research findings. Most of their bibliography is not Greek. In the area of assessment in

particular much of the relevant work approaches assessment from a sociological point of view, -whether and to what degree assessment reproduces social differences- and therefore it is irrelevant to this investigation eg (Avdali, 1989; Papakonstantinou, 1993). There are very few studies carried out in Greece which are related to teachers' grading practices. The exceptions are described below.

The first study cited in Kassotakis (1981), carried out by Kyriakides (1980) demonstrated that almost 50% of Greek secondary school teachers are affected by the behaviour of their pupils when they assess. No sex differences were found.

A more rigorous questionnaire study was carried out by Mavromatis (1995). In his PhD he asked Greek primary school teachers to chose 5 traits that they thought most important in assessment out of a list of 26. His results indicated that teachers take into account the following pupil traits in order of importance:

Table 3.1

Children's traits assessed by Greek primary school teachers. (Mavromatis, 1995)			
Traits	Cases (%)	Traits	Cases (%)
1. Critical ability	70.3	14. Skills	13.9
2. Participation	53.2	15. Maturity	12.8
3. Creativity	49.6	16. Persistence	7.1
4. Effort	49	17. Independence	6.2
5. Industry	46.6	18. Tidiness	5
6. Cooperation	37.7	19. Retention	4.5
7. Knowledge	31.2	20. Kindness	3
8. Self-confidence	24	21. Quietness	2.7
9. Imagination	19.6	22. Discipline	2.1
10. Behaviour	16.3	23. Patience	1.8
11. Honesty	15.4	24. Obedience	.6
12. Intelligence	14.5	25. Appearance	.3

Children's traits assessed by Greek primary school teachers. (Mavromatis, 1995)			
13. Attention	14.5	26. Other	.3

The analysis of these findings led him to conclude that Greek teachers in general are oriented toward 'traditional' pedagogy, since the traits that Greek teachers considered most were critical ability, class participation, industry and knowledge. A categorisation of the above traits into domains, showed that Greek primary school teachers took into account traits of both the cognitive domain as illustrated by the traits of critical ability, knowledge and creativity, and the affective domain illustrated by traits like effort, independence, industry, attention and cooperation with the teacher and classmates. Comparisons among sub-groups in the sample revealed that the most experienced teachers indicated that they were more interested in children's class participation and industry but considerably less in their creativity, knowledge or effort. Children's effort was mentioned by about 10% more of the younger and moderately experienced teachers. Higher percentages of the averagely experienced teachers however mentioned creativity, critical ability and co-operation than did their colleagues in the other groups. Urban teachers appeared to be more 'traditional' than rural ones, since much higher percentages of them chose industry, class participation, critical ability and knowledge, compared to rural ones, while a smaller proportion mentioned creativity. Teachers with higher degrees and the ones who were taking an INSET course at the time of the study as well as young teachers, mainly considered children's creativity, co-operation, critical ability and effort.

The most detailed study of how Greek primary teachers assess was carried out by Bellas (1995). He and his associates carried out several interview and questionnaire sub-studies on a number of issues relating to how Greek primary school teachers assess their pupils. Here, however, only his findings regarding the characteristics of the pupils that appear to be taken into account for assessment are going to be presented.

The research attempted to identify the characteristics of the high and the low achievers, described as 'good' and 'bad' pupils. In Greek everyday language at school these are in

common usage. The researchers felt that by adopting those terms they would get a better description of what they were looking for. 118 teachers answered the questions. The most common responses were as follows:

Table 3.2

The characteristics of the high achiever (the good pupil): (Bellas, 1995)
Concentrates on his (the male gender is used by the author) work and the work that is being done in the classroom. The level of participation is high.
Understands meanings quickly (he is in a position to explain to the others what he has heard or read, understands implications, understands humour...)
Asks for explanations for what he does not understand (he is not satisfied with incomplete understandings)
Has fast and intelligent reactions to all stimuli (there are however good pupils who react slowly after thinking; therefore this criterion is only conditionally taken into account and only if it is reconfirmed by the rest). From a general point of view his reaction time is relevant to the difficulty of the problem that he is facing.
He is aroused by problematic situations and actions, like looking for causes, finding analogies and making comparisons
He works autonomously and does not rely on help from others. Others look for his help.
His attainment in Greek and maths is very high.
His contribution to the cognitive elaboration of new material is significant.
He is reliable and responsible (he does his homework, he knows the timetable for the day)
He looks upset by any oral or written mistakes that he may have made.
He appears to have wide knowledge.
He appears prepared to use the knowledge that he has learnt immediately and properly.
He gives correct answers. He does not mention things irrelevant to the issue in question.
The questions that he asks (either of the teacher or his classmates) are accurate and important.
He attempts to answer the questions posed to the class first.
He easily and correctly uses the basic vocabulary in his written assignments and in his oral interventions.
He possesses and uses a richer vocabulary compared to that of his classmates.
During teaching his remarks are accurate and sensitive.
He is very sensitive to advice and the remarks made by the teacher.
He adapts easily to different aspects of class work (he can easily go from oral to written tasks, to study etc.
He finds class work interesting. (He asks for more work, complains that he is not examined individually very often, he reminds the teacher of routine actions if he forgets etc).
He respects the rules of the class.
He is socially integrated into the class and is generally accepted by his classmates.
During the composition of work groups a lot of his classmates want to be around him.

The characteristics of the high achiever (the good pupil): (Bellas, 1995)
He has a sense of humour.
He expresses his opinion to the teacher (even if it is different to his) if he thinks that he is supporting something fair.
He is ordered and systematic in his work and his behaviour.
The projects carried out by him are organised and consistent.
He likes reading out-of-school books.
He has self confidence and appears satisfied with his work.
He exercises constructive criticism in relation to himself and others.
He is sensitive (in art, and to pain and human misery)
He is interested in his future.
He takes good care of the appearance of his books and his exercise books.
He is neatly dressed, his hair is brushed, and he is very clean.

The characteristics of the low achiever (the ‘bad pupil’) are not described in detail and it seems that they are more or less the opposite of those classified above. However, the research also describes the characteristics that teachers do not like in their pupils. The main characteristics of the low achiever are:

Table 3.3

The characteristics of the low achiever (‘the bad pupil’) (Bellas, 1995)
He comes to write or do his work having constantly left at home necessary materials.
He loses things which are necessary for his work.
He appears all the time to be busy with something irrelevant and does not start his work
He immediately starts work without waiting for directions.
He attempts to follow mechanistically the initial example of a written exercise without creatively thinking how each problem should be resolved.
He interrupts his work with unsubstantiated excuses, or simply because he wants to talk to other pupils, or just to look around.

The characteristics of the low achiever ('the bad pupil') (Bellas, 1995)
He does something different to the rest of his classmates.
He hands in his work without a final check.
His work is slovenly and shabby both as far as its appearance and its content is concerned.
He includes in his work information from encyclopaedias in a mechanistic non integrated manner.
He copies extracts from various sources and presents them as his.
He has a tendency to copy from pupils who sit next to him, when he supposed to think and act by himself.
He refuses to become a member of a group.
He interferes with group work and group cooperation with a number of parasitic behaviours.
He does not accept the share of responsibility for the result of group work and blames the other members of the group.
He does not do his homework and uses inappropriate excuses.

The same study has descriptions of the criteria teachers take into account in grading in each of the main subjects e.g. Greek and mathematics , as well as discussions of the operation of assessment in the classroom. However, there are certain problems with the methodology and the presentation of results. The exact methodology used in each of the sub-studies is not clarified, (e.g. there is no appendix including the questionnaires used). The analysis is not described in detail and there is no presentation of tables. The study only touches on general classroom assessment, without referring to how formative classroom assessment influences summative assessment (termly reports on the progress of pupils). The former records in writing the ideas that a teacher forms about pupils in each subject in each term. This is the subject of the investigation which is now described.

Philippou & Christou (1997) carried out a study comparing Cypriot and Greek primary teachers conceptions of mathematical assessment. One item in their questionnaire measured their agreement on certain criteria for assigning grades. The criteria were:

Table 3.4

Criteria for grades assignment. (Philippou, 1997)
1. Class participation.
2. Performance on classwork
3. Test scores.
4. Homework assignments.
5. Effort of pupils.
6. Persistence and patience of pupils.

The results indicated that for criteria 1, 2, 5 and 6 high levels of agreement among Greek teachers were expressed (99%, 96%, 97% and 94%). Agreement on criterion 4 (homework assignments) and 3 (test scores) was expressed by 44% and 70% of teachers retrospectively. The authors characterised the above findings as indicating that the teachers employ a variety of criteria to grade pupils. In relation to the low levels of agreement about the influence of homework on grades they commented that homework is an unreliable, or at least a debatable source of information about pupils. The relatively low percentage of agreement regarding test results as a criterion for grading was attributed to the fact that no commercial tests are available in Greece and consequently teachers have to construct their own.

3.4. RESEARCH QUESTIONS RAISED FROM THE LITERATURE

The literature has shown that assessment cannot be divided or extracted from the educational system within which it takes place. It has also shown that not all teachers adapt to the requirements imposed to them by the educational system and personal opinions, ideas, etc. interfere with their assessment and grading practices e.g. (McCallum, McAlister, Brown, & Gipps, 1993). Teachers seem to take into account a number of pupil characteristics when they assess both academic (achievement) and non academic (non achievement) criteria. The studies carried out in Greece are few and limited regarding the information that they provide about primary school teachers grading practices. As shown earlier (Bellas, 1995) a number of factors

appear to be taken into account in order for a pupil to be characterised as a high or low achiever. However, there is no information on how or if these pupil characteristics affect grading. The most recent and relevant study (Philippou & Christou, 1997) of Greek primary school teachers' grading criteria only examined 5 criteria. It does not provide an overall picture of teacher grading criteria, since grading was only one of the sub-aims of the study which investigated many more issues in teachers' assessment. To attempt to address these gaps in the literature the current research aims to explore:

What implicit theories Greek teachers hold about grading?

What are the factors that they believe they take into account when undertaking grading and how do these factors affect grading?

For instance, how do they perceive that

-testing affects grading?

-pupils' classroom participation affects grading?

-homework preparation affects grading?

-family background affects grading?

-the linguistic ability of the pupil affects grading?

-individual differences among children affect grading?

-pupil motivation affects grading?

-pupil behaviour affects grading?

-personal likes affect grading?

In relation to teachers the research will explore whether teacher characteristics affect their perceptions of grading practices. Are these differences based on

gender?

education level?

experience?

the age of children that they teach?

the geographical areas of teaching?

In addition the study will attempt to provide a model which will provide a framework for understanding the perceptions of Greek primary teachers of influences on their grading.

CHAPTER 4

METHODOLOGY: GENERAL AND INTERVIEWS

4.1. GENERAL METHODOLOGICAL PLAN

4.1.1. Exploratory study. Why?

The first issue that needs to be considered is what methods would be most appropriate to answer the research questions set out in the previous chapter. Most of the previous research has not taken place in Greece. Of the Greek research only three studies have considered the issue of primary school teachers' assessment and grading. Two (Mavromatis, 1995; Philippou & Christou, 1997) used closed questions in a questionnaire. They asked teachers what factors contributed to their assessments. But they did not clarify how the questionnaire items were selected. Because of the nature of the closed questions, teachers were not given the opportunity to suggest any other factors which may have contributed to their grading decisions other than those mentioned by the devisors of the questionnaires. The factors that appear in their studies to be influencing grading therefore may not be the only ones. Bellas (1995) on the basis of interviews identified the characteristics of the high achiever (good pupil) and the low achiever (bad pupil). However this information may only be indirectly linked with grading. Pupil characteristics and behaviours may relate to grading in that a high achiever is characterised as such because he is given high grades. The same applies to the low achiever. Pupils however are complex beings and their characteristics do not necessarily fall into either one or the other category. What happens if a pupil demonstrates behaviours from both categories? What about a pupil who concentrates on the work that is being done in the classroom, demonstrating understanding, but who from time to time becomes distracted or makes excuses for not working? Is this pupil going to be given a high or a low grade? Such questions are not answered by Bellas' (1995) work. These studies then do not address in adequate depth the questions which underlie our understandings of teachers' grading practices in primary schools in Greece.

The first step of an investigation where background information from literature findings is

limited and only indirectly linked to the focus of the research, should be of an exploratory nature. That is, first of all, the issues that are to be investigated should be clarified. In this case, first of all, the criteria by which primary school teachers grade need to be identified, categorised and their effects on grading in accordance with the research questions demonstrated and discussed in relation to earlier international research.

4.1.2. Interviews and questionnaires to teachers. Why?

On the basis of the discussions in previous sections it has been made clear that there is a need for an exploratory study of the Greek primary school teachers' grading practices. It has also been shown that the first phase of the study should focus on the identification and categorisation of as many as possible grading criteria used by Greek teachers. What would be the best method for identifying the criteria by which Greek primary school teachers assign grades to their pupils? First of all the source from which the information will be derived should be clarified. The two parties that have a direct involvement and therefore knowledge of grading process are teachers and pupils since the former are the ones who assign them and the latter are the ones who receive them. One might also argue that parents, are also involved in the grading process since grades are intended for them to a great extent. A complete study of the grading process therefore would require investigation relating to all parties. An objective observation of the grading process, if possible, might also be appropriate. However, pupils and parents receive grades. They are not actively involved in assigning them. For this reason the study will focus on the teachers perspective taking account of the teachers' views of the roles of parents and pupils.

The next issue to consider is the method by which the investigation will take place. How is the information going to be obtained from teachers? The most appropriate approach would seem to be interviewing teachers. Interviews particularly semi-structured ones have been suggested as an exploratory tool which helps to elucidate an issue, an area to be chartered, or a complex problem to be uncovered (Kvale, 1996). In interviews the interaction between the interviewer and the interviewee allows in depth discussion, clarification of issues, terms, words, phrases etc that arise during the interview. Also, interviews are a flexible medium of

investigation since they enable development, enrichment, and can become more complete in the process. Especially in the exploratory phase of a study, where quantitative data is not what is sought, this quality of interviews is of major importance. Face to face interviews offer the possibility of modifying the primary line of enquiry set by the researcher, following up interesting responses and investigating underlying motives (Robson, 1993). This function of interviews is supported by Tuckman (1972) who argues that interviewing provides access to attitudes and beliefs, values and preferences and gives the researcher the possibility to 'measure' what a person knows. Kerlinger (1975) identifies the use of interviews as a tool which validates other methods. Cohen & Manion (1989) note the use interviews as a proper tool for a researcher to test hypotheses or to suggest new ones; or as an exploratory device to help identify variables and relationships.

Because of these qualities, interviews have been chosen as a tool of investigation by many studies investigating similar issues to those which this study attempts to investigate eg (Blount, 1997; Wood, 1990).

Thus, interviews were chosen to explore the grading process in the Greek primary school: how teachers make decisions about grading, pupil characteristics that affect their grading and a number of other issues that will be raised in detail later. However, interviews only serve the purposes that they are created for. They are not a panacea in research. It cannot be claimed that they produce representative and generalisable results. Interviews as Kerlinger (1975) notes can be used as an exploratory device to help identify variables and relations to suggest hypotheses, and to guide other phases of research. But they cannot be adopted to study large populations or collect quantitative data. According to Kvale (1996) ideally the whole research process involves the interaction of qualitative and quantitative approaches. Both qualitative and quantitative methods are tools and their utility depends on their power to bear upon the research questions asked.

The research questions outlined require the collection of quantitative data to facilitate the generalisation of findings and the exploration of other factors eg experience and gender of teachers and how these affect their grading. Thus, in order to satisfy these requirements of the

investigation, data based on a questionnaire study are also needed. The interviews and the questionnaires should be seen as inter-related in this study. No single tool in itself would be adequate to investigate the questions raised. For instance if interviews were not undertaken, the questionnaire may lack validity. On the other hand if questionnaires were not used, the findings of the study would be drawn from a relatively small sample and the results might only be due to the characteristics of the small sample. The following section will describe the interviews and how the data from them led to the development of the questionnaire.

4.2. INTERVIEWS' METHODOLOGY

4.2.1. Sample

The sample consisted of 17 teachers, 8 female and 9 male. The number of the interviewees was not planned in advance. In fact, interviewing stopped when the information that was provided was just a repetition of what had been previously stated and little information was being added (Kvale, 1996). Since the main aim of the present phase of the study was to identify the plethora and the variety of teacher opinions and experiences related to the grading process, the sample first of all included teachers of both genders. Second, since experience seemed likely to affect grading practices, teachers with different levels of experience were selected. Finally teachers with different educational background were also included in the sample.

4.2.2. Experience

The experience of the teachers interviewed varied from 1 year to 35. As can be seen in table 1 the years of experience of the 9 male teachers are: 1, 2, 9, 10, 15, 17, 22, 26 and 33 years, while for the female are 3, 4, 8, 8, 20, 25, 26, and 34.

Table 4.1

The Interviews' Sample				
Interviewee No	Experience Yrs	Education	Order of Interview	Gender
1	3	University Postgraduate	1st	Female
2	4	Academy University Postgraduate	2nd	Female
3	8	Academy	15th	Female
4	8	Academy	17th	Female
5	20	Academy University Postgraduate	5th	Female
6	25	Academy	7th	Female
7	26	Academy	16th	Female
8	34	Academy	13th	Female
9	1	Academy University Postgraduate	3rd	Male
10	2	Academy University Postgraduate	4th	Male
11	9	Academy	12th	Male
12	10	Academy	9th	Male
13	15	Academy	11th	Male
14	17	Academy	10th	Male
15	22	Academy	6th	Male
16	26	Academy	8th	Male
17	33	Academy	14th	Male

The age of the teachers varies in accordance with their teaching experience.

4.2.3. Education

The educational level of the teachers interviewed differs. All but one held a teaching qualification certificate awarded by the Pedagogic Academy, a two year higher education institution, not a university, which provided education for primary school teachers (see chapter 3). One interviewee, P1, held a University Pedagogic degree. Two have University Pedagogic degrees and Academy certificates in primary teaching (P9 and P10), one (P2) has an Academy certificate plus a 4 year University degree in Music, and another one, (P5) holds

an Academy certificate plus a degree in Economics. Five of the teachers (P1, P2, P5, P9 and P10) have completed postgraduate studies and at the time of the interviews were undertaking Doctoral studies in different areas like Comparative Education (P1), Music Education (P2), Economics in Education (P5), Environmental Education (P6), and European Policy in Education (P10). Within the sample, the less experienced of the interviewees are more educated. In practice, in Greece, most primary school teachers have only an Academy certificate. Only a small minority have University degrees. The first teachers with such degrees started working in 1992 and each year represent only 20 per cent of the annual supply of teachers. 80 per cent are still Academy graduates.

4.2.4. Procedure of interviewing

4.2.4.1. Time and place

The interviews took place in late March and April of 1996. Five of them in England where the teachers were studying at that time and the rest in Greece. All of them were volunteers, half of them were known to the interviewer prior to the research, the rest were not.

4.2.4.2. Interview questions and interviewing process

The aim of the present phase of the study was to explore teachers' grading practices. Thus, the interviews were designed to be semi-structured with open ended questions in order:

- a. To let the interviewees elaborate on issues that they thought were important (Coolican, 1994),
- b. To give the opportunity to the interviewees to raise issues that the interviewer had previously been unaware of (Coolican, 1994)
- c. To be relatively easy to analyse. If they were strictly structured, the participants would not be given the opportunity to elaborate or discuss issues that they thought important, but if they were absolutely unstructured it would be extremely hard for them to be analysed (Kvale, 1996).

The interviews were based on the research questions outlined earlier. They were concerned with grading taking into account issues relating to pupil motivation, behaviour, intelligence, and family background. The issues addressed were divided into groups as outlined below:

Table 4.2

Interview Structure
-We are going to discuss the criteria by which you assess your pupils. Everything which is going to be discussed here will be confidential.
-Think of a pupil that you gave the highest grade to and a pupil that you gave the lowest grade. Can you describe these pupils and try to detail the characteristics which made you give him/her the highest or the lowest grade. You can describe them separately or in parallel.
-Now think of the best pupil that you can imagine. How would he or she differ from the ones you just described?
<p>Criteria related to the curriculum.</p> <ul style="list-style-type: none"> -Do you give your pupils a lot of tests or only the ones set in the curriculum? -Do you think that the tests by themselves are enough to describe a child's achievement? -Do you assess your pupils by how well prepared they are in their homework? <ul style="list-style-type: none"> -What is the role of classroom participation in assessing pupils? -Is a child's classroom participation related to achievement in tests? - To what extent are your criteria standard or do they depend on the general aptitude of the class? -Is it possible for a pupil to get an A in one class while in another class s/he would get a different grade?
<p>Criteria related to motivation.</p> <ul style="list-style-type: none"> -Does the effort that a pupil makes affect your grading? <ul style="list-style-type: none"> -How is effort related to achievement? -How does achievement motivation manifest itself in achievement? <ul style="list-style-type: none"> -What is the role of possible selves in achievement? -How is interest related to achievement? -Is it possible for a child to be highly motivated and not to achieve? What is the role of parental expectations in achievement and grading?
<p>Criteria related to individual differences.</p> <ul style="list-style-type: none"> -Is it possible for a child to put in a lot of effort and not to achieve? -What makes some children achieve highly with little effort and others achieve at a lower level although they make a lot of effort? -Do you believe that there are more and less intelligent children? <ul style="list-style-type: none"> -How do you define intelligence and cognitive capacity?

Interview Structure
<p>Criteria related to behaviour.</p> <p>-Is grading a way to reward good behaviour and to punish bad? -Is it possible that a child will get a lower grade because s/he is disruptive?</p>
<p>The role of the family in achievement, motivation and grading.</p> <p>-What is the role of family in achievement? -How can a family be effective in promoting their child's achievement? -How can the family effectively motivate the child? -Does parental interest in the child's progress affect the grading of the child? -Does personal friendship with the child's parents affect grading?</p>
<p>-What is the role of language in achievement?</p>
<p>-How do you think other teachers assess their pupils?</p>
<p>-Is it possible for personal likes or dislikes to play any role in grading?</p>
<p>-Do you want to add anything else about grading that has not been mentioned?</p>

The questions were derived from the existing literature with some additions, for instance, questions about the linguistic ability of the child and its relationship with grading. Others were developed further, for instance the questions about motivation go into greater depth than the previous work addressing issues relating to the role of possible selves, achievement motivation and grading, and parents expectations.

The interview situation and the initial introduction to it have been characterised as extremely important for the success of the interview (Kvale, 1996). An attempt was made to promote as relaxed an atmosphere as possible. Before each interview some time was spent describing the nature of the research and giving an overview of the general thrust of the questions.

The introductory question asked the interviewees about a pupil to whom they had given high grades and one to whom they had given low grades. This approach was adopted because it was thought that if the teachers had a specific pupil in mind they would draw on more criteria that would characterise a pupil as a high or low achiever. The second question attempted to find

out whether there were any characteristics of the high or the low achiever which were not raised initially. The characteristics outlined, were noted by the interviewer. These were then used to introduce the planned questions. For instance: ‘You mentioned that s/he (the high achiever) makes an effort. Are pupils who make an effort more likely to be given higher grades?’ This question would be followed by the questions relating to motivation and so on. In this way the initial questions were presented as follow up or probing questions. However, direct questions were asked if interviewees did not raise issues planned to be discussed. The whole interview was conducted as a discussion based on the interviewees’ initial responses.

The exact wording of the questions was not always identical; their phrasing differed with different interviewees. For example the question ‘what is the role of possible selves in achievement’ could not be asked without prior explanation as the interviewees were unlikely to understand it. Instead, the question might be phrased: Have you observed that children set goals for their later lives? Do you think that these goals are related to attainment’? How are they related to grading? Similarly, the question about the relationship between achievement motivation and attainment was asked with phrasing such as: Have you noticed any pupils who try hard just because they want to be the best pupils? (an expression very commonly used in Greek). As the interviews were planned to be semi-structured, the order of the questions was not always the same and sometimes the process led to a discussion about non-planned matters.

The process of interviewing was not conceived and executed as described above from the beginning. It developed as the result of both the experience gained from one interview to the next, and to a large degree on the conclusions drawn from the pilot study. The contribution of the pilot study to the development of the interview process is described briefly below:

4.2.5. The Pilot study and its contribution to the process

The interviewer had previous experience in interviewing young children (Zbainos, 1993), however, the present interview situation differed with regard to the issues being examined and the age of the interviewees. The experience of the interviewer has been described as a

crucial factor for successful interviews. For instance Kvale (1996) reports that learning to become an interviewer takes place through interviewing. Studying may give some guidance but practice remains the main road to mastering the interviewing craft. An interviewer's self confidence is acquired through practice; conducting several pilot interviews before the actual project interviews increases his or her ability to create safe and stimulating interactions.

The first five interviews comprised the pilot study. Although they were not conducted with such experience as the later interviews, due to the importance of their content they were included in the final data analysis. On the basis of the pilot interviews improvements were made to the interview schedule summarised as follows:

Initially, the interviewer did not note the characteristics of the high and the low achiever and use them as the means to introduce the other questions. After the analysis of the pilot interviews the potential of using the initial introducing questions as a starting point was detected and used.

One major difference that the interviewer found between interviewing young children and adults was that it was very hard to elicit answers from the former, and equally hard to avoid the verbosity of the latter. The pilot interviews showed that teachers were very keen to discuss the issues connected with grading, and frequently they led the conversation into issues unrelated to the aims of the study. For instance one interviewee described in detail an occasion when she was inspected and what she did in the lesson. The pilot study demonstrated the frequency of such examples and the inadequacy of the interviewer to control the interview to the issues strictly connected to the aims of the study.

The pilot study also showed that some terms were not understood by teachers, and that reactions to other terms were unpredicted. For instance one teacher in the pilot study appeared not to be familiar with the term 'individual differences', while another refused to accept the term 'intelligence' although describing more and less intelligent behaviours of pupils. There therefore had to be some flexibility in the terminology and wording used in each interview.

The more experienced the interviewer the more likely it was that the interview would be successful. The pilot study helped in correcting errors in the interviewing process made at the beginning. However, each one of the interviews contributed further to the experience of the interviewer, and every new interview was better than the previous one.

4.2.6. Analysis procedure. Issues of validity and reliability

When the data collection, the translation and the transcription of the tapes were completed, the analysis of the data started by a thorough reading of the transcription sheets. Two coders were employed for the coding of the information emerging from the interviews (the researcher and a psychological researcher). The process followed that established by Cooper & McIntyre (1993): 'Reading a random sample of transcripts, identifying points of similarity and difference among these transcripts in relation to the research questions, theorising about the information; finding links between the information which emerged from the previous analysis. These theories were then tested against a new set of transcripts. In addition, the new theories emerging from a new set of transcripts were tested against transcripts already dealt with. Finally, all the existing theories were carried forward to new transcripts. The above processes were repeated until all data had been examined and all theories tested against all data'.

In the above quotation Cooper and MacIntyre, (1993) use the word theories in order to describe the categories which evolved from the data. In other words both researchers examined whether their data fitted into the derived categories. In the analysis of the present interviews categorisation related closely to the questioning. The categories matched the questions and subsumed all the relevant data. As will be shown in the presentation of the analysis and the results of the interviews, the categorisation of the data fell into 13 primary categories. In some cases sub-categories were formed. Under these, each different approach was coded. For instance, one category was called 'teachers attitudes towards tests'. Both positive and the negative attitudes towards tests were coded in this category. Another was 'participation in the classroom' under which the different opinions regarding pupils' participation in the classroom and its relations to grading were coded.

An effort was made to ensure that the analysis of the data was reliable and valid. Krippendorff (1980) and Weber (1990) discuss reliability in the analysis of interviews with regards to stability and reproducibility. Stability refers to the extent to which the results of content classification are invariant over time and can be determined when the same content is coded more than once by the coder. In order therefore to check the stability of the analysis one month after the initial categorisation of the data, randomly selected parts of the interviews were re-coded. When compared with the initial coding no major differences emerged.

The second kind of reliability is reproducibility or inter-coder reliability. This refers to the extent to which content classification produces the same results when the same text is coded by more than one coder. To satisfy this, the transcripts were read and coded by a second coder (a psychology researcher) to establish that the definitions of the categories were clearly formulated. Discrepancies were not indicated. Where statements could not be agreed upon they were not included in the analysis.

Kvale (1996) raises the issue of transcription reliability. In this particular case since translation took place during the transcription, the issue of translation reliability is also pertinent. To establish this reliability, random samples of the interviews were transcribed and translated by a Greek teacher of English. The two versions of the transcriptions (one transcribed and translated by the researcher and the other by the teacher of English) were scrutinized by a psychology researcher who verified that the meaning was the same.

The issue of validity requires different techniques to the ones used for checking reliability. In general, a study claims that is valid when it has managed to investigate what it was supposed to. In interviews no statistical tests of validity can be employed. Validity can be claimed on the basis of a number of factors:

1. At the data collection stage, the participants were volunteers. Since not every teacher may feel comfortable discussing how they assess, the selection of the interviewees on a voluntary basis was expected to discourage any possible misleading responses.
2. Validity was also accounted for from a phenomenographic perspective in the following ways: The interview was carried out in the form of a dialogue (Marton, 1994), in order for the

interviewee to help the interviewer achieve the conceptualisation required to understand the information provided by him/her. This leads to a greater accuracy of meaning and provides validity since the interviewee is given the opportunity of agreeing the interviewer's understanding either during the interview or later. In fact, the researcher arranged meetings with the interviewees after the initial interview in order to validate the categorisation and thematisation of the interview information. Exact expressions, ambiguous points and perceived contradictions were presented to the participants in order to allow further clarification. This did not change the initial categorisation. All participants supported the categorisation made.

Kvale (1996) argues that the issue of validity should not only be raised during and after the analysis, but that validation is needed throughout the interview process and even before that. He presents validation in seven stages. The present study attempted to satisfy all these.

'1. Thematizing. The validity of an investigation rests on the soundness of the theoretical presuppositions of a study and on the logic of the derivations from theory to the research questions of the study' (Kvale, 1996 p. 237). In this study the research questions were developed after a detailed review of the literature and to a great degree they were based on it.

'2. Designing. The validity of the knowledge produced depends on the adequacy of the design and the methods used for the subject matter and purpose of the study' (Kvale, 1996 p. 237). This was addressed earlier in the general methodological plan.

'3. Interviewing. Validity here pertains to the trustworthiness of the subject's reports and the quality of the interviewing itself, which should include a careful questioning as to the meaning of what is said and a continual checking of the information obtained as a validation in situ' (Kvale, 1996 p. 237). As mentioned before all the interviewees were volunteers. Therefore there is no reason for them to provide un-trustworthy answers. The quality of the questioning was described earlier.

'4. Transcribing. The question of what constitutes a valid translation from oral to written

language is involved in the choice of linguistic style for the transcript' (Kvale, 1996 p. 237). Since in this particular case transcription and translation took place at the same time the problem of validation at this stage was even greater. Checks were made on this by using a second translator and a second coder.

'5. Analysing. This has to do with whether the questions put to an interview text are valid and whether the logic of the interpretations is sound' (Kvale, 1996 p. 237). The analysed transcripts of the interviews were shown to the interviewees. They were asked to comment on whether their ideas were distorted by the analysis or not. The categorisations were also checked by two coders.

'6. Validation. This entails a reflected judgment as to what forms of validation are relevant to a specific study, the application of the concrete procedures of validation, and a decision on what the appropriate community is for a dialogue on validity'(Kvale, 1996 p. 237). This section discussing the validity of the present study constitutes a judgement on validity as well as a description of the application of the validation procedures. The study has a very specific audience and therefore the author cannot comment on the community which will address its validity.

'7. Reporting. This involves the question of whether a given report is a valid account of the main findings of the study, as well as the role of the readers of the report in validating the results' (Kvale, 1996 p.237). An attempt will be made to include as many extracts from the interviews as possible for the validation of the findings. A sample of the interviews are included in the appendix to serve the same purpose. The reader can judge the validity for him or herself.

In conclusion, in the social sciences no study can claim that a perfectly valid and reliable method of investigation is adopted. It is not possible to investigate opinions, behaviours, attitudes etc in the same way that you can investigate the length of something using a metre measure. Nevertheless, a number of issues regarding reliability and validity have been considered during the design, the execution, the analysis and the report of the findings of the

study. No claim to perfection is made. Certain weaknesses exist. Attempts were made however to minimise these.

The next chapter will consider the findings of the interview study.

CHAPTER 5

INTERVIEWS' ANALYSIS AND RESULTS

5.1. THE CHARACTERISTICS OF THE HIGH AND THE LOW ACHIEVER

The first question asked teachers to think of a high and a low achieving pupil and to describe them. This task elicited specific answers. Table 5.1 presents in brief the characteristics of the high and low achievers described by the participants.

Table 5.1

The characteristics of the high and of the low achiever		
P*	High Achiever	Low Achiever
1	Participates, knows the answers, polite, hard worker, does well in tests.	Does not participate, lack of interest, poor behaviour, does not do homework.
2	His interests are centred on school	Although clever, his interests are not related to school activities
3	Not only a good pupil but also a good child. Compliant, helpful, polite, becomes shy when told off, always comes prepared for school, has neat and tidy exercise books.	Pupil with difficulties, comes to school unprepared, sometimes exhibits bad behaviour, poor family background.
4	Diligent, interested in the lessons, studies hard.	Does not prepare homework, talks during the lesson, not interested in the lesson.
5	Pays attention in the classroom, prepares homework, has knowledge beyond what is taught at school, accepted as a high achiever by all the pupils, not isolated, loved.	Inadequacies from past years, naughty.
6	Has high attainment not only in school subjects but in all school activities, is interested in the subjects, shows intelligence, shows integration of present knowledge with the prior knowledge, critical thinking.	No interest, does not like the subjects, does not like learning, no participation, low intelligence.
7	Good character and high achievement, comes from an average town family, regularly on time, has tidy books, good behaviour, polite, nice to other pupils, does not insult classmates when they do not know something, helpful, comes always prepared, searches.	Good character, poor family which does not provide help, not a good pupil,
8	His parents are teachers, good child, hard working, intelligent, nimble.	Indifferent, poor cooperation with the teacher, poor behaviour.
9	Does homework, participates in the classroom, asks and answers questions, interested in school life.	Does not show interest, does not work hard especially in subjects with a strong language component, interested however in subjects like art and physical education.
10	Reads very well compared to classmates, highly developed mathematical thinking, asks questions which show that he understands the material, mature.	Does not prepare homework, too quiet, could not pay attention to the process of the lesson, naughty, disturbing.

The characteristics of the high and of the low achiever		
11	Good in all subjects, reads easily, able to express himself, has good behaviour.	Does not read well, does not use language well, has problematic behaviour.
12	Has shown big improvement compared to the beginning of the school year, interested, comes from a very disadvantaged family background, hard worker, open minded, concentrated, pays attention.	Makes a lot of spelling mistakes, has difficulties with reading, very backward in mathematics.
13	Very positive presence in the classroom, good family background, understands why he comes to school, sees school as a step to move forward on the social scale.	Lack of interest, does not see school as a step to move forward, unmotivated, poor pupil.
14	Family background mainly responsible for the attainment of the child. There are no general characteristics, each child is an individual case.	Makes an effort, low ability, poor family background.
15	High attainment, achieves in relation to the textbook, is able to correspond to what is taught, is able to solve the exercises in the book, participates in the classroom, good behaviour, not too quiet.	Does not correspond to the level in the book, has a lot of difficulties.
16	Direct answers, correct answers, appropriate behaviour	Understands the same things with difficulty.
17	Hard worker, disciplined, participates in the classroom.	Neglectful, indifferent, does not participate.

* P = Participant

Table 5.1 shows that teachers agreed regarding the characteristics of the high and of the low achievers. In general, the descriptions of the high achievers were much longer and more detailed than those of the low achievers. Teachers seem to prefer to talk about the high achievers, and the positive side of their work rather than about the low achievers.

The characteristics of both high and low achievers were further investigated by questions that examined each separately. The plan of the interview enabled these first answers to be used as connections for the questions that followed. The first categorisation of the characteristics of the high and the low achiever as described by the teachers reflects the literature from which the questions adapted in the interviews were drawn. The following categories emerged: Academic achievement, Motivation, Participation in the classroom, Behaviour, Family background.

5.1.1. Academic achievement

As might have been expected, high academic achievement (high attainment in tests, oral questioning etc.) was perceived as a characteristic of the high achiever (and the lack of it a characteristic of the low achiever) 10 of 17, (58.8%) teachers mentioned it. For example: s/he knows the answers, (P1), s/he is a good pupil (P2), s/he has high attainment in school subjects (P4). The question of the tests used to assess attainment, how are they devised, how important they are for grading etc is not provided in these brief descriptions of the characteristics of the high and of the low achiever. These issues were examined later in the process of the interview.

5.1.2. Classroom Participation

Pupils' classroom participation appears to be one of the perceived attributes of the high achiever (and the lack of it as a characteristic of the low achiever). Eight participants, (47.05%) mentioned this. However, as will emerge later, a pupil can be a high achiever and not participate because of his/her shy character. Teachers believe it is their job to give these pupils a chance, and to stimulate them to participate.

5.1.3. Motivation

A commonly mentioned characteristic of the high achiever is 'hard worker'. The term 'motivated pupil' is not used in Greek but as hard work is the product of some kind of motivation (intrinsic, extrinsic etc) the two terms may mean the same thing to the teachers. Hard work was mentioned by 9 participants (52.9 %) in several ways like 'prepares homework' (P5), 'studies hard'(P4). 6 of the 8 female teachers (75%) mentioned hard work, preparation of homework etc as a characteristic of the high achiever and lack of it as a characteristic of the low achiever, while only 3 of 9 (33.3%) male teachers mentioned the same characteristic. This will be explored further in the questionnaire study. A motive mentioned by a relatively large number of participants (7 as an attribute of the high achiever, and 3 as the lack of it an attribute of the low achiever) is the interest expressed by pupils in

school. Another motive which characterises the high achiever mentioned by one participant is that of ‘possible selves’, saying that a child was doing well because he had realised that school is something which will help him to move up the social scale. More detailed examination of the motivation of pupils will be undertaken later.

5.1.4. Behaviour

Pupil’s behaviour is mentioned as a characteristic of both high and low achievers. Nine participants (52% of the sample) mentioned it as a positive characteristic of the high achiever, or as a negative characteristic of the low achiever, or both. However, as it was mentioned only by approximately half of the participants there is clearly not a consensus. Some teachers seem to be affected by the behaviour of the child when they make assessments, while others do not take it into account.

The issue of troubled behaviour and its relationship with grading was one of the matters which was discussed in detail in the interviews, and will be considered separately.

5.1.5. Family background

Family background as a characteristic of the high or the low achiever was mentioned by a relatively small number of teachers (5 of 17, 29.4%). Although this issue was one of the main focuses of the interviews.

5.1.6. Individual differences (Intelligence)

Intelligence was an attribute that a number of teachers mentioned as a characteristic of the high achiever. Low intelligence was seen as an attribute of the low achiever. The teachers did not specify what they meant by the term intelligence, how they assessed it, etc. Other cognitive characteristics were mentioned in relation to high achievers, for example S10 mentioned that the high achiever asked questions which showed that he understood the

material and S6 mentioned that the high achiever had critical thinking skills and integrated present knowledge with prior knowledge.

5.1.7. Other Characteristics

A number of other characteristics, both social and personal were mentioned by the participants. Politeness was mentioned by three participants (P1, P3, P7), all female. Being loved, accepted by classmates, helpful, compliant, nice to other pupils, were other social attributes which were mentioned. Two participants described that high achievers had neat and tidy exercise books implying that this is taken into account in order to characterise a pupil as a high or a low achiever.

The characteristics of the high and the low achievers as described by the participants were used as the basis for further questioning. The results are presented below. The purpose of the interview study was to collect as many different views about each of the issues examined to facilitate the development of the questionnaire. At the end of each section the issues raised are summarised.

5.2. FACTORS AFFECTING GREEK PRIMARY TEACHERS' GRADING

The first thing that the analysis of the interviews demonstrated is that Greek primary teachers base their final grade on an overall picture that they create about each of their pupils and not on any single criteria.

-When you are giving a grade at the end of the term do you judge this on achievement at that time i.e. how well they did in tests?

Oh, no by overall achievement.

(P2)

When I give a grade it is not only the tests that I have in mind. It is the overall picture of the pupil as she is every day.

(P5)

What I was interested in was an overall picture which would be created throughout the school year, throughout the term, and not a fragmentary picture of how well prepared they were at a specific subject on one specific day.

(P9)

The grades come from the overall presence of the pupil in the classroom, from how s/he operates within the classroom

(P12)

The overall picture is created by taking into account a series of factors and assessments both academic and non academic. Different teachers appear to be creating an overall picture by taking into account different factors or the same factors in different ways, or placing different levels of importance on each of the factors. These are summarised in model in figure 5.1:

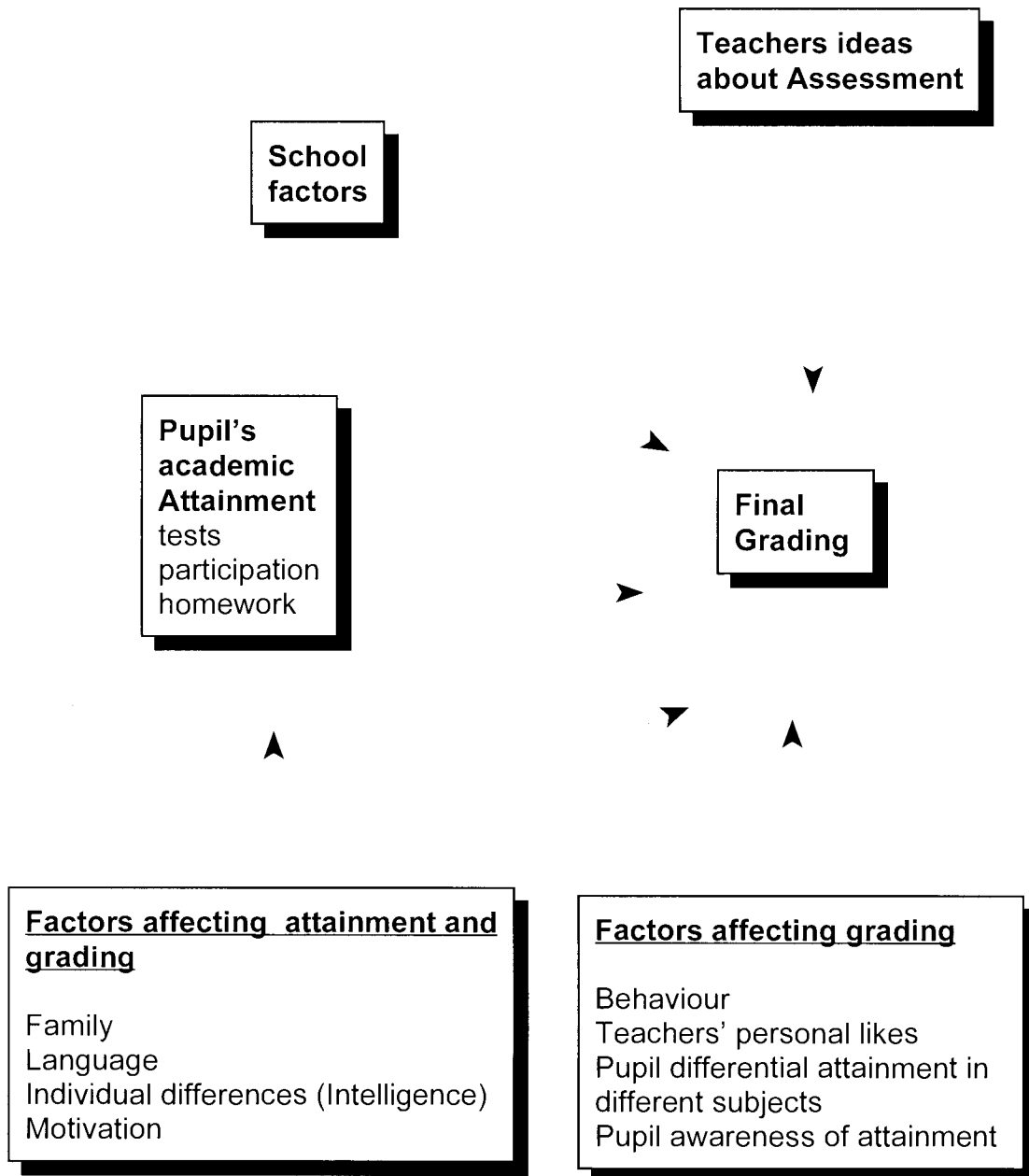


Figure 5.1
 Factors affecting grading
 (Based on interview findings)

The interviews demonstrated that two major categories of factors appeared to affect grading. The first are pupil factors eg their academic attainment, their family background, their linguistic level, their intelligence, their behaviour, whether they are liked by teachers, their differential attainment in different subjects, and their awareness of their attainment in relation to the other pupils of the class. The second major category includes all non pupil factors e.g. characteristics of the school, and teachers' ideology.

The first group of factors are those enshrined in the legislation on grading, i.e., tests, (official tests, and teacher devised tests), classroom participation, and homework preparation (see the model in figure 5.1). Although these criteria affect teachers in different ways and to a different degree, they seem to form a standard referent regarding the objective attainment of the pupil. All, or at least one of them appear to affect grading.

The second group consists of factors that appeared to affect grading directly and indirectly by affecting pupils' attainment. In this category the following criteria emerged (see the model in figure 5.1): Pupils' family background, linguistic level, intelligence and motivation. Family background was mentioned by almost all the participants as the most important factor which influences pupils' attainment. Some teachers were affected directly by the family of the pupil in their grading. These teachers for instance mentioned that they would give higher grades than their attainment to children of friends relatives, etc. Closely related to this is the linguistic ability of pupils which according to most teachers' perceptions appears to affect attainment. Linguistic ability also appeared to affect directly at least some teachers' grading. They stated that they would give grades higher than their attainment to pupils who exhibited a high linguistic level. Individual differences in general and intelligence in particular were mentioned by a number of participants to affect pupils' attainment. Some teachers appeared to be willing to give grades higher than their attainment to pupils that they considered to be intelligent. Finally, pupils' motivation was mentioned by all participants as one of the most important factors affecting attainment. Highly motivated children appeared to be more likely to get higher grades than their attainment.

Some factors appeared to affect grading not via attainment but directly (see the model in figure 5.1). These included pupil behaviour, teachers' personal likes, pupils' differential attainment in different subjects, and pupils' awareness of attainment. Some teachers said that they would give lower than their attainment grades to pupils with disruptive behaviour. Regardless of whether pupils' attainment is high or low, poor behaviour would result in lower grades. Personal likes were mentioned by some of the participants to affect grading in a positive way. Some teachers, if they liked pupils, gave them a higher grade than their attainment would allow. Pupils are perceived by some teachers to attain higher in some subjects and lower in others. This may result in a halo effect with high grades being given for all subjects. Finally, some teachers mentioned that pupils were aware of their attainment in relation to others. Grading needed to take into account a sense of fairness and should not be arbitrary.

Teachers' ideological orientation appeared to affect their grading. For instance some teachers claimed that grading should not be used in the primary school. Another said that grading in the primary school should be lenient in order to motivate pupils and should not be a calculation of the overall average of pupils' separate assessments. Other teachers expressed opposite views. For instance, some claimed that the grading scale should be numerical in all year groups in order for even small differences among pupils to be obvious. These differences are likely to influence the practice of grading. In a system where strict criteria are not specified, and grading is not controlled by external bodies, teachers' ideology appears to have a great influence in their grading practice.

The last group of factors emerging from the interview data is named 'school factors'. In this category are included the social and geographical factors which affect both pupils' attainment and teachers' grading. The interviews revealed that teachers perceive that in different social environments children's attainment is different due to their experiences, and therefore grades do not have the same meaning in different geographical areas. They mean different things in a village, in a small town and in a large city. The highest grades will be given to the highest achievers. However, a high achiever in a relatively unprivileged school may be a low or an average achiever in a privileged school. Therefore it appears that school factors affect grading

as well.

The categories will now be considered in greater detail.

5.2.1. Academic Attainment

**Pupil's
academic
Attainment**
tests
participation
homework

The first group consists of the factors by which academic assessment takes place according to the curriculum and the legislation about assessment namely, tests, classroom participation and homework. Teachers' attitudes towards these factors are described below.

5.2.1.1. Tests

Participants were asked how much attention they paid to test results in their grading since they are described as one of the main sources of information about attainment according to curriculum requirements and the law. Sixteen of the teachers referred extensively to this matter (one did not refer to it because she did not have any experience in Greek mainstream schools). Thirteen stated that tests did not play a very important role in their grading, or at least not as important as the curriculum would indicate. Three were influenced by test results for end of term report grading. The level of importance of testing for each one varies from extremely negative "I did not give tests at all" (P 10) to positive "the curriculum sets the goals and tests show the level of correspondence to these goals" (P 16) with many intermediate positions e.g. "tests comprise a picture, a great one but not the only one" (P 8). Even among teachers who claim that they do not take tests into account for grading, there are differences

in the reasons given, for instance,

- ◆ Also every week, it used to be Fridays, but now it is Mondays, we have a revision test on what we have learned throughout the week, grammatical phenomena, words, also spelling based on the words that they have learnt. So I photocopy one page with all these things and after I narrate the spelling and explain the exercises one by one, then they write by themselves. Because I want to see to what extent each one of them has prepared at home, I also want to see how they remember the things that we did at school, and to what extent they want to work, because there are children, I have one in my class who, although they know those things do not do anything.

(P 3)

In this extract it can be seen that regular tests are a main source of information about preparation at home, about remembering of the material or not, and about the cooperation of the child: This teacher has accepted the importance of testing and keeps records with the test results which she consults when she gives the final grade.

Another participant with a positive attitude towards testing is P15:

-How important are the official tests set within the curriculum to your grading?

- ◆ These are very important. With them, (tests), you can check how well he has understood the material, the things that you have taught in a specific amount of time, say two weeks or twenty days. After you have taught them, then you try to see if they have been absorbed. Sometimes we give them more tests than the ones set by the curriculum, by the book.

-Do you give many tests?

- ◆ Not many but we do. There are many exercises in the book in all subjects. There are so many that you do not need many tests but we give them some more because some children prepare these tests with their parents at home, and therefore we give them these tests. Of course, the official tests in the

subjects of language, mathematics, science and geography I keep them at the school I do not give them to the pupils, I only give them when they take the test, and from what I have observed they respond very well. Maybe the tests are not that hard.

-In order to assess a pupil then, do you believe that the tests that you give your pupils and the ones set by the curriculum describe accurately the final grade of your pupils?

- ◆ If the child is able to answer the questions in the tests, then this means that he has understood the material and therefore he is going to get good grades.

This extract illustrates in a much more detailed manner the positive attitude of some teachers towards testing. The last sentence contains the essence of these ideas: “If the child is able to answer the questions in the tests, then this means that he has understood the material and therefore he is going to get good grades”.

Other teachers do not agree with such statements. Their views vary from being extremely negative towards testing, to being critical of some aspects:

- ◆ I do not give tests to my pupils.

-What about the ones by set by the curriculum?

- ◆ To be honest I haven't seen the curriculum. I do not know what is written in there.

(P9)

This participant appears to feel absolutely free to teach and assess in the way that he thinks is right. He does not give tests to his pupils because apparently he does not think that he should. It also illustrates the existing situation in Greek education where the ministry attempts strictly to control the educational process by sending directives and legislating.

However, in the final analysis it is up to the teachers to comply with the legislation and the directives. As no inspection of any form took place in Greek schools at the time of the study there was no means of ensuring that they did so. This attitude may be explained because of the lack of experience of the particular participant (just one year). However, similar ideas are expressed by the most experienced participant (P8, 34 years of experience):

-Can you please tell me if you feel that the ministry obliges you to assess in a specific way, or do you feel that you are completely free to assess in the way that you want?

◆ In most cases I comply with what the ministry says.

-Do you feel that the ministry imposes some things on you or do you feel that in the end you are going to do whatever you want?

◆ I think that I will decide in the end. I overlook what the ministry imposes.

Other teachers explain why they disregard curriculum testing and what they do pay attention to:

◆ The curriculum mainly assesses the rote learning of the pupil. It examines whether the pupil has learnt by rote, history, or if he can solve the problem in maths. It does not ask us to assess the critical ability of the child, in order to have a complete picture of the child.

-Do you assess the critical ability of the child?

◆ I personally, try to have a more objective picture of the child. There are many children who may feel insecure, who are fearful, and some who have not developed their memory well and therefore do not perform well in these tests which are provided by the curriculum. We therefore create our own tests and in those tests we try to help a child who has a lot of ability but who is insecure, who may have a family problem, who is not given the chance to express himself as much as he should at school.

-Are you telling me now that you do not take much account of these tests?

- ◆ I do not take account of them. They are just a part of the picture.

-Are you going to use them at all?

- ◆ I am going to use them but I will not stick to them.

(P6)

This participant expresses a rather different approach from the ministry. She believes that the tests created by the curriculum are not objective because they only test rote learning, the memory ability of the children. She argues that they do not provide an objective picture of the child because there are more attributes which need to be assessed than the ones that these tests assess (Validity problems). She gives as an example the critical thinking of the child. Similar opinions are expressed by participant 7:

Can you please tell me what are the objective criteria by which you assess the attainment of a child?

- ◆ First of all I do not want them to be good pupils in the old way when they learnt things by rote. I place much weight on critical thinking and towards this aim I plan my lesson. Because I want the child in the primary school to learn to be critical towards the subjects that he learns. In history, for example, we had a lesson about Alexander the great, or earlier on about the Persian wars. I don't want the good pupil or any pupil to learn it by rote. We criticise our topic, and the same thing happens in mathematics and in language. We stress the importance of the development of the critical thinking of the child.

-What do you mean by critical thinking?

- ◆ That is, why we solve this problem the way we do in mathematics, or why in language we write this word like this, and why do you put there this form of noun and not the other. And in this way the child does not learn things by rote. Or in history we learn that Alexander was great, why did history declare him great, what is the reason; because he was a capable general, politician, etc. and we discuss the character of the person that we are examining and this is useful, it is useful for the child to learn to be critical. We Greeks are not famous for having critical minds. We used to learn by rote, but this is

gradually being abolished in primary, secondary, and, I believe, in higher education, and it must be abolished because we create human beings who act like computers that you press a button and they tell you. But humans have emotions, critical ability, imagination, and we have to cultivate these things.

This participant appears to have set her own goals for her teaching, emotions, critical ability, imagination. This elaboration about critical thinking started after she was asked about the objective criteria by which she assesses her pupils. She started by saying that grading should not take place in the old traditional way, implying tests etc. Another participant (P11) mentions that the curriculum tests are unreliable for practical reasons:

-Do you think that the criteria that the curriculum sets like the formal tests help you in the final grading of the pupil?

- ◆ I think not. Because the pupil may be prepared for the official test, he may have a test paper from last year and have learnt it at home, the teacher assesses the pupil every day. If you have experience you can understand if a pupil corresponds to the requirements of the curriculum through a discussion that you may have with the pupil, or by some questions that you may ask him.

What P11 stresses is that the tests are unreliable because the pupil may know the questions in advance. The formal ministry tests remain the same from year to year. While they are kept at school knowledge of their content can be passed through siblings.

Similar views were expressed by most participants. The tests devised by the ministry according to most teachers' descriptions are not an 'organic element' of the grading process' in primary school as the legislation suggests.

5.2.1.1.1. Issues raised for further investigation in the questionnaire study

The differences in teachers' descriptions about the use of testing in grading raises a number of questions that require investigation with a larger sample. These are listed below.

-Are formal tests the main information teachers use to assess the academic attainment of the pupil?

-If not why?

Because they only reflect the rote learning of the pupil?

Because pupils may know in advance the questions in the test?

-Do teachers tend to take tests created by themselves more into account?

-Are tests only a part of the overall picture by which grades are assigned to pupils?

5.2.1.2. Classroom participation

Classroom participation is also described by the ministry act as one of the three components which makes up pupil's grading. The term classroom participation is very commonly used in the literature and in the interviews with teachers. However no clear definition is given. It is not usually clear whether the term participation refers to oral, or written activities or both. In the ongoing discussion the term classroom participation includes participation in oral, written as well as other activities, eg physical, musical, etc. that take place in the classroom. No distinction is made between classwork and classroom participation as the former is regarded as a part of the latter.

Teachers' opinions about the weight they place on participation as a way of assessing the attainment of the pupil (which in turn affects grading) vary from very positive to relatively negative. For instance:

-If I asked you how do you objectively assess the attainment of the pupil in the classroom what would you say?

- ◆ I do not restrict myself to test and written work if this is what you imply, I am more interested in the participation of the pupil in general, in all subjects. How the pupil participates in the classroom throughout the whole period of the lesson.

(P17)

The teachers believe that one of the most important criteria for grading in the primary school should be classroom participation activities, discussions, etc. Some teachers also believe that participation is an objective way to assess attainment. However, some teachers directly or indirectly stressed the fact that there are some children who are extremely withdrawn by nature and that classroom participation as a criterion for grading is biased against them. For example, P 15 attempted to make clear that classroom participation as a criterion is biased in favour of the more sociable, and that withdrawn children need special treatment :

-How important is the participation of the child in the classroom?

- ◆ I would say that because sometimes children are withdrawn, I give them opportunities. Those who are very confident about their attainment participate, while others who are withdrawn have some difficulties and I give them the opportunity with exercises which are easier, with more simple questions, in order for them to participate.

-Suppose that one child participates in the classroom and another does not. When you give them their final grade, will classroom participation count?

- ◆ No, I will take into account the tests. When I ask pupils to tell me something, because I ask them to come to the blackboard and I give them questions it is not only the initiatives that they develop in the classroom (I take into account). Some of the children are withdrawn. I will look at the tests. If I see that their tests are good, satisfactory, I give them the grade that they should take.

(P15)

According to P15, tests are more important as a criterion because they are more objective and not biased against withdrawn children. Another teacher, P6, believes that children, according to their personality perform better in either oral classroom participation or in written tests:

How much does classroom participation count in the grading of the children?

- ◆ It counts a lot without this also being a determinant because as I told you there are many children who are fearful, insecure, who may have a family problem which does not let them express themselves freely. This is their personality and they are not that expressive.

-Do you think that classroom participation is related to their attainment in tests? Is there a chance for a child not to participate but to do well in tests?

- ◆ There are many examples of children who do not -let me say it in a teacherish way- attain well in oral exercises but they do attain in tests.

-Is there a chance for the opposite?

- ◆ Yes there is a chance for the opposite. There are children who find speech easy, they are more sociable, and with one or two things that they know and from two or three things that they hear from the teacher, they participate. But they do not attain in tests because they do not study that hard and they do not learn the specific things that they should in order to attain well in tests.

-Which is more important to you?

- ◆ I cannot say that one counts more than the other. Because there are many factors which will give you a complete picture of a pupil. It is neither the tests nor the oral participation. Neither is it the interest that he shows by itself nor the ability of the pupil. There are many factors. It is the sum of the factors.

(P 6)

According to P6 some pupils perform better orally and others perform better in written

examinations. She does not appear to take one into account more than the other as the previous participants stated. She appears to consider participation as a contributory factor.

5.2.1.2.1. Issues raised for further investigation in the questionnaire study

The issues raised in relation to classroom participation appear to be as follows:

Is classroom participation the main criterion by which teachers grade?

Should participation not be taken into account because it is biased against shy and withdrawn children?

Is participation perceived by teachers as only a contributing factor in the overall picture of the pupil?

5.2.1.3. Homework

Although the purpose of homework is primarily concerned with learning, it can be used as a mean of assessing the attainment of the pupils. The opinions expressed regarding homework vary. Some teachers appear to take homework into account, while others do not consider it and others believe that homework should not be given at all.

-Is preparation at home important for you?

Yes I want the children to prepare at home. Preparation counts for me. Sometimes it is negative when they do their homework with their mothers. I want them to work alone.

(P8)

There are some children who do their preparation for the day after well, there are some others who do it less well and there are some others who are totally uninterested.

-Does this count in assessment?

Yes surely.

(P11)

In order for a pupil to get a 10 s/he must be perfect. That is he should come with his

homework prepared every day in all subjects.

(P12)

P8 for instance states that it counts towards grading if a pupil comes with his homework prepared. Homework according to her is an assessment of academic achievement although she states that sometimes it is not prepared by the pupil but by their mothers. It is also evident that P11 and P12 appreciate homework preparation and take it into account in assessment. Most teachers appear to take homework into account as an assessment of academic attainment. The fact that some pupils may come with their homework prepared by someone else appears to be the reason for another participant not to use homework preparation as an assessment of their attainment.

- Is it (homework) going to be assessed in itself as an indication of high attainment?

- ◆ No it is not going to be assessed in itself. I had a confrontation with the consultant on this matter, because he told me to give them the exercises that they didn't do at school for homework, and I told him that this is stupid, because children who do not know anything come with their exercises done which means that their parents did it. No, it is not going to be assessed in its self.

(P3)

The other opinion expressed is that homework should not be given at all.

- ◆ I try most of the time, to finish all the work at school because I teach in a village and when the agricultural work begins, it will occupy much of children's time.

(P12)

This teacher claims that sometimes for social reasons homework should not be given since children do not have the time to do it. The view that homework should not be given was very popular in the early 80's when giving homework was banned for social reasons. P12 reflects those ideas.

5.2.1.3.1. Issues raised for further investigation in the questionnaire study

The questions arising about the relationship between homework and grading are:

Does homework preparation affect grading?

Should all academic work be done at school?

5.2.2. Factors influencing attainment and grading

Factors affecting attainment and grading

Family

Language

Individual differences (Intelligence)

Motivation

The second category emerging from the interviews consists of factors which, according to teachers, affect pupils' attainment. Teachers describe that family background, language, intelligence and motivation affect pupil academic attainment which in turn to some extent determine final grades. These factors also appear to affect grading directly as well.

5.2.2.1. Family background

The importance of the influence of family background on attainment and consequently on the grading of pupils to a lesser or to a greater degree was stressed by all the participants. The

ways in which the family appears to influence attainment are as follows:

5.2.2.1.1. The Physical and psychological environment

The physical and psychological environment that parents provide for their children was stressed as very important for pupil's attainment and therefore grading. In general there is a consensus among teachers that a peaceful environment at home is crucial for the attainment of the child at school. Also, poverty, unemployment and similar social problems were perceived affecting pupils' performance:

- ◆This child cannot pay attention to the lesson. His attention is disrupted because he has problems, he cannot concentrate on anything else because he is occupied with his problem, for example the unemployment of his father. Some other pupils that we have do not show any interest in the lesson and when you ask them 'why don't you show any interest' they tell you because I have to go and look for food. These things do not mean that the child cannot learn or that the child is not clever, but that he has other interests.

-Tell me more about the role of the family in attainment.

- ◆ Family plays a crucial role in attainment. First of all when the child has a good family environment, and how do I define good, an average family an average mother who is interested in her children and a father who is interested in his family. We are not talking here about perfect situations because these things cannot be found. These things belong to the sphere of ideal. The child has a peaceful life and can be interested in school setting aims through the family for school and further. But if the family environment is negative, for example, both of the parents are fighting all day long or if there is great poverty as the example I mentioned before, then the child cannot pay attention to school work. The only thing that he is not interested in is mathematics because what he wants is to fill his stomach. Or the only thing that he is not interested in is language because his father beats his mother. This does not mean that the child is not clever or that he cannot learn his lessons. There are other things that occupy his mind and this is the reason that he is not interested in school.

-How can a family help a child?

- ◆ First of all by ensuring a stable environment in which the child can work, can spend time on his studying and can set goals. If he does not have a quiet environment he cannot do anything. From there on, of course, by helping him a little with his lessons. When the child has a problem, sometimes the mother or the father can help or by going to a specialist.

(P6)

Psychological support from the family is also perceived as very important according to P 4:

- ◆ I tell them that children have not only a need for food and clothes, they have a need for love for tenderness. This a thing that you do not see in Greek parents. They ask from their children much more what they can do. They tell them to be good pupils, to get high grades etc, and they are not interested if the child has any problems, either with their friends or with the family. I think that it is a priority for a child to be well psychologically, and a second priority to do well at school.

(P 4)

The most commonly mentioned family problem is the divorce of the parents:

- ◆ Children who come from problematic families usually do not do well. It is very hard, and it is logical that since the child has problems at home s/he will be absent minded in the classroom. They cannot achieve because they have psychological problems and it is impossible to adapt to the climate of the class. I see this. It is obvious.

-What do you mean by family problems?

- ◆ There is a percentage of children with divorced families, If the parent who lives with the child does not pay special attention, the child will have great

problems.

(P 4)

For another teacher however divorce can be better for the pupil than discord within the family:

-You have mentioned a lot of things about the role of the family in attainment. Let us explore those things in greater depth. What do you think is the role of the family in attainment?

- ◆ I think that the family plays the most decisive role in the attainment of the pupil. And in particular the relationship between the parents. It is better for parents with a disturbed relationship to carry on their lives separately, so that the situation is clear and there is no ambiguity. In a ambiguous situation children confront a lot of problems when they come to school. They cannot pay attention to what is taking place in the classroom. They think of the time after school, where they are going to go, and what they are going to have to face. Especially when there is discord at home. I have taught children whose parents had extramarital relationships, or who argued because they had major financial problems. I concluded that the stability of the child at school is at least by 70 per cent a result of the stability at home.

(P 14)

One participant (P 7) described extensively what she does in order to provide help for children who come from disadvantaged backgrounds. When asked however if the school as an institution does anything for these children her answer was negative:

- ◆ In general the environment affects the attainment of the child very much. Heredity and environment are the most important factors which may help or ruin the child. Family is the immediate environment of the child. The child is born and grows up and continues to grow up there. But there are cases, as the one I mentioned before, where the environment is completely unhelpful. I do not know if I can fill that gap at school, but the child has improved greatly. I would expect that particular child to react very negatively to me, because I

know their environment. I have visited the home. I have been to the baptism of his little sister. This was done on purpose because I wanted to be very close at this time. I was so impressed when I saw the environment of that child as I told you, I am very touched every time I remember this child, what environment he comes from, and what kind of child he is. I do not deny that the environment plays an important role, but there are exceptions where you see that in a very negative environment you can have a very good result, or in a very good environment the child is not good, of course these are very rare cases.

-Why do you think this happens?

- ◆ I cannot know which are the factors which are important. I told you that may be in the case of this child the love that I showed him which he did not have from the father or the mother was a factor which brought the child close to me.

-Do you think that school as an institution can compensate for the lack of motivating environments? I am talking about school as an institution and not about the interest that a particular teacher may show.

- ◆ I would be cautious here. I think that school is not interested as an institution. This is sad. It should help these children.

Another family problem which is mentioned as affecting the attainment of the child is the death of a parent:

- ◆ There are some problems like the death of one of the parents which some times creates insurmountable problems for the children, and you can see that in the attainment of the child. I have a case of such a pupil, who has her father and it took her two years to pull herself together. She was a very good pupil, as far as her attainment was concerned before the incident, but it took her two years to recover.

-Did you give her lower grades although you knew her problem?

- ◆ Not as much, as I should. I tried to control things not to create more

problems. There is this flexibility in the scale which should exist, otherwise it is cruel.

(P 13)

On the other hand P 10 describes as a high achiever a child whose father died the summer before the school year. In contrast to the example given by P 13, this pupil, although suffering a intense shock from his father's death, maintains his academic attainment.

In his case I spent some time with his family and this was interesting. He had lost his father the same summer when I had him in my class in a very tragic way. The father and the two children, Stephanos, the child I'm talking about, had just finished the first year group of the primary school and the other had just finished the fourth year group, had gone for the weekend to the village of their grandfather. He took the children to climb the mountain and he had a heart attack and died immediately. The two little children had to find a way to go back to get help. The first one stayed there with his father dead, and the little one followed the path back. He walked for four hours to get back to the village to tell the other people. The children suffered a shock. Actually the situation was shocking in general. It was published in the newspapers. The whole town was shocked. His mother who was a teacher herself was very worried about the reactions of Stephanos. I did not start teaching that class from the beginning of the school year, I went in January. They had another teacher before, when I went to teach in that school we had a discussion with his mother. What his mother told me is that their father spent much time with the children. He helped them to do their homework, and the parents themselves had realised that the things that Stephanos asked were not asked not even by their older son. They understood that the younger son had questions in his mind that they had not experienced from their older son. This is what I had in my mind and I could see it.

(P 10)

In this case again we have a pupil who is suffering a great shock, but his attainment is not affected. Dramatic and tragic experiences do not affect all children in the same way.

5.2.2.1.2. Cooperation between the teacher and the family of the pupil

The most frequently mentioned factor as far as family background is concerned, with regard

to attainment is the cooperation between the teacher and the family. It is generally recognised by the participants that the family in general and the mothers in particular are to a great degree responsible for the attainment of the pupil at school:

‘The most important parent is the mother, who usually spends more time with the child at home, and who helps him with his studying. This is very important’.

(P 5)

‘At least in the lower year groups one hour is enough for the parent to sit down with the child and help him/her.’

(P 3)

For this kind of help to be effective all 15 teachers who raised this issue believed that there should be a cooperation between the parents and themselves. They described this process:

-If I asked you how would a parent help her child so that his attainment gets better what would you say?

- ◆ This is a crucial question because in the meeting that we have at school with the parents every two weeks, I talk to the parents about how we should behave to the children. We have touched this subject a lot of times. Parents should be counsellors not the ones who are going to give ready knowledge. They should give advice, guide the child and they should stop there. They may answer a question but they should not teach the lesson to the child. For example where the mother explains the history unit to the child and then asks the child to repeat it or they prepare the next unit in language with the child so that the day after the child shows off. No I have stopped parents doing that. I advised them not to be authoritarian but democratic parents. The authoritarian teacher does not achieve in the classroom when he talks and the rest listen, the teacher should be democratic. The teacher should advise, guide and then stand by the child. There should be a dialogue between the teacher and the pupil, and there should be a dialogue between the parent and the child. The parent should not prepare the ‘next unit’ so that the child is distinguished the day after because this thing happens.

(P7)

What needs clarification here is what is meant by preparation of the 'next unit'. What parents often do, is teach their children the next unit so it appears at school that they have comprehended it quickly and can do the exercises quickly. Teachers do not approve of this because children who have prepared the next unit at home feel bored and become disruptive when the teacher presents that unit:

- ◆ I am against preparation at home (of the next unit) because the child loses interest in the next chapter and he learns something not from a teacher but because he read it himself, or because his parents have told him about it. In this way the child loses interest and does not pay attention to the presentation that the teacher has chosen.

(P11)

The effects of cooperation between parents and teacher on grading can be direct or indirect. Indirect cooperation means that parents have an influence on children's attainment and therefore the grades that the pupil gets are higher.

- ◆ What I have concluded after all these years of cooperation, because I told you that I believe that parents are a determinant, is that the parents with whom I have developed friendly relations strive to help their children get better as far as knowledge is concerned, to help them, and yes it has affected their children's grading.

(P14)

-Does the interest that parents show affect the attainment of the child?

- ◆ Yes. The child knows that the parent has a contact with the teacher, knows that if s/he misbehaves or it comes without studying the parent will know that, and I believe that the children whose parents have contact with the teacher have a better relationship with the teacher. Because I see that the children whose parents I have contact with, are more kind with me, and I am not

talking about personal contacts, having coffee together and things like that, simply they come to school, we have a chat and this kind of thing. These children are more kind.

(P4)

-Does the interest that parents show affect the attainment of the child?

- ◆ It definitely does affect it. If the parents are interested, advice that you give to the parent may help the individual problems of the child how these can be dealt with at home, maybe, because the teacher hasn't got the time at school to spend on a particular problem, or there might not be any problem... just advice about how to help the pupil.

(P11)

All the teachers agree that the more interested the parents are in their children's school progress and the more they cooperate with teachers the more likely it is for that their children will get higher grades. However, this should not be seen as a causal relationship. The fact that a parent is interested in his/her child's progress does not necessarily mean that the pupil will attain higher. Some parents never go to school and ask about their children's progress, but this does not necessarily mean that these pupils will be low achievers:

- ◆ Usually the parents of the good pupils come, who already have good grades so there is no need to give them a higher grade. I don't know if they come because they are interested or if they just want to hear good things about their children. Maybe for both. You cannot give any higher grades to good pupils. If the child is average you can help him/her to get better, and the same with the bad pupil. You will say things to help him get better. But if the child cannot do any better, what can you do with the poor parent, you can't do anything.

(P 3)

- ◆ I believe that the family plays a very important role. But there was a case where a child achieved at a very high level and got a scholarship to a famous private school although his parents did not pay any attention to his

progress. His parents were illiterate, I do not know if they graduated from the primary school.

(P 12)

-Isn't there a chance for a parent not to come and the child to be an excellent pupil?

- ◆ Just a very few cases. There are such cases but these parents appear some times, and they will explain that there are some reasons why they have not attended, but there is a chance if a child is exceptional, has an ability etc.

(P 5)

The conclusion therefore from this section is that parental interest and cooperation are perceived as helping in attainment which then affects grading. This does not mean that there is no chance for a child with indifferent parents to be a high achiever.

5.2.2.1.3. The educational level of the family

The educational level of the family is perceived by Greek primary school teachers as extremely important for the attainment of the child. Teachers relate it in several ways to the attainment of pupils.

-Does the educational level of the family affect the attainment of the child?

- ◆ Yes to a great extent.

-How does this happen?

- ◆ I believe that parents who have a high educational level can better cooperate with the teacher. Also they can help their children more than a parent who has no education, who is illiterate, because such people exist in Greece.

(P4)

- ◆ The second thing is the (educational) level of the family. When the family has a certain (educational) level this means that the child comes to school being able to use a certain vocabulary, richer, he has got certain experiences, he uses language better, all of these things. The child who comes from a family with problems or poor vocabulary, is certainly going to face problems in his attainment at school.

(P11)

These two teachers relate the educational the level of family to attainment through mediators that we have discussed before. Participant 4 believes that parents who are more educated may have better rapport with the teacher, and be able to work with them more cooperatively than the less well educated or illiterate parents of the class than illiterate parents. The effects on the child's attainment are mediated through this cooperation. Other teachers however seem to relate these factors in different ways:

-Do you think that the educational level of the family affect achievement?

- ◆ Yes very much. Because I think that parents who do not have an interest in reading themselves, they do not even read a newspaper and all they do is go to work, watch the telly and go to the coffee shop, need themselves to become more educated, and I think that they do not give their children the chance to. These are the poor minded, the simple people, I do not want to say the illiterate people, and I do not want to categorise them by professions. They are parents who were not good pupils themselves and they do not have an interest in learning any more in their lives. They do not give chances to their children. There is a chance in such a family for an intelligent child to be born who may ask 'buy this for me, I want that book.' They buy it if they have the financial capacity to do an the child will progress. If they tell him 'we can't, it is expensive' and so on, then the child will be disadvantaged.

(P4)

Participant 4 claims that non educated people do not provide opportunities for their children to become educated because they were never good pupils themselves. She describes them as simple people who do not have an interest in learning. She also implies that educational and financial level of the family are connected. She stresses the un-motivating for education environment that uneducated parents may provide, in which even an intelligent child may be

disadvantaged. The connection between educational and financial level is also mentioned by P17:

-Does the educational level of the family play any role in attainment?

- ◆ Surely a pupil who comes from educated parents is better. Also the financial level of the family plays an important role. That is a child that does not lack things achieves more than the child that lacks. This is what I think.

(P17)

Here a child who lacks resources is perceived as not achieving as much as the child who does not. Educational level of the family is related to the financial level. Material things rather than clearly stated are implied. Poverty in relation to attainment was discussed earlier. Teachers seem to relate poverty to low achievement.

Participant 10 relates educational level to attainment in a different way:

-How does parental knowledge affect the pupil's achievement?

- ◆ You may see that the parents really want to help but they do not have the knowledge of how to handle their children or how to make them work, or how to make them learn their spellings. What I see as great differences among parents is, if beyond lessons, if they spend time with their children attempting to give them more things beyond school, other experiences, other stimulation, explain to them some things, whether they are get engaged with their children.

-And how do you see this manifesting itself in the classroom?

- ◆ You can see this very well. Many children have knowledge acquired from other contexts which are not in the school curriculum. They are not in the material that they had to learn. Once for example we were working in science and he started talking to me about amphibians. The others had not heard from anyone what are the amphibians. He was the only one to know. That

was because his father was interested in that and he told him things about it. So the child had much more stimulation to think and create, more stimulation and other questions.

-What is the role of school in learning therefore? Do you assess what children know from home or what they learn at school?

- ◆ Things are not that simple. My opinion is that the more children know from their homes the easier it is for them it is to achieve in what they learn at school.

(P 10)

Participant 10 thinks the extra knowledge that educated parents provide for their children is responsible for the differences that he sees in the attainment among pupils. Even if school claims that it assesses children according to pupils' attainment in the curriculum, there are some teachers who in fact assess their pupils taking into account knowledge that they already have from their family. In addition, this teacher does not take much account of the results of tests because in his opinion they do not provide an accurate view of the child's progress. While grading may be viewed as objective it is affected by factors external to school, social factors. Even within a tightly formulated curriculum which aims to give children equal opportunities to attain, social factors intervene, a positive family background affects attainment of the pupil in many ways regardless of whether it is assessed by tests, or the oral participation of pupils. However teachers did mention that there are exceptions. There are examples of children who come from disadvantaged family backgrounds with high attainment. The factor which according to a number of participants mediates between family background and attainment is ability, or intelligence and the individual characteristics of the child.

5.2.2.1.4. The direct influence of the family on grading

In addition to the indirect effects of the family on grading through attainment there are some

direct effects. Some teachers accepted that some pupils are directly rewarded for their parents' interest. Three teachers indicated that they would give higher grades to children whose parents showed interest and cooperated with them or because they have personal relationships with their parents:

- ◆ Are you asking me if there is any difference in the grading of the children whose parents come and ask about their children and those whose parents never come?

-Yes.

- ◆ There is a father whose son is not a good pupil. The fact that he comes will not make any difference.

-If there are two pupils of the same level. Does the fact that there is a difference in the interest that their parents exhibit make you give any different grades?

- ◆ No. Again no. It happens though that when the parents come, in most cases they do not come by themselves, they come when you invite them because there is a problem or they come at the end of the term to take the reports,....

-Let me ask you something else. Will your personal relationships with parents affect the grades that you give?

- ◆ You mean if you are friends with a parent, or if a parent comes and tells you please give a better grade to my son for this reason.

-Yes

- ◆ Yes, they will affect me. If you have a pupil whose parent is an old friend of yours, you were in the army together, the fact is that this will affect the grades that you are give. But the best thing is to explain 'I'm giving a better grade to your son, but the truth is that he is not doing very well and he needs to make much more effort and put in much more work. I have given him an 8 although he only deserved a 6 but I want you to know that.

(P12)

-I am not asking you about learning but about grading. Will the fact that the parent is interested affect the grade? You have two children of similar achievement. One parent is interested in his child's progress and the other is not. Will the fact of interest influence the grading of the child?

◆ Yes it will matter.

(P1)

-Let me ask you something else. What is the role of the parents in grading? When a parent often visits school, seems interested in his child's progress, asks you, tells you things, and you cooperate, will this alone make you assess the pupil in a more positive way in comparison with another pupil whose parents are not interested, have never come to school and you have no contact in general?

◆ Yes.

These extracts illustrate scenarios that may occur in the Greek primary school. It is related to the way that relationships between parents and teachers can directly affect grading. The first example shows that some teachers may give higher grades to children if they are old friends of their parents. The next two examples show that some teachers may give a higher grade to a pupil just because his/her parents are interested in his/her progress and cooperate with the teacher.

A number of teachers repeated that they have been under pressure from parents to give higher grades to their children, or even to give lower grades to others so that their child might have the highest average grade:

◆ I understand what you say, a friend asked me to give a higher grade to a

child. I experienced that once at a school from a colleague whose child was in my class. I felt extremely bad. Thank God the child was a very good pupil, but the mother wanted me to give her a higher grade than the other children. She claimed that because her daughter got a 10 the other children should not. And I told her that it is impossible since the other children were as good. I felt the pressure, but I do not discriminate against children. And I will never do it.

(P 4)

- ◆ For me, even when I taught in the village where I come from and I had pupils who were children of my classmates at school, I reached the point of saying to a friend of mine who exercised pressure for a higher grade: 'if you think that the representation of the grade is the picture which shows the actual behaviour of your son in the classroom, it is very easy for me to tear up this report and instead of 8 to give him a ten But how will you feel in front of your child, or how will your child feel with this grade. You may see this as a contradiction, but the grades for me must have a great deal of leniency, in order to be in accordance with these families who think that the grade is the lift which will move pupils to the higher levels of the social scale. That is, in a particular school after the mothers received their reports one was showing the report to the other saying: 'look what grades my son got'. And the other did not show what grades her son got because the first one had 7 tens and the second had three tens. Well that mother felt less important than her neighbour, and I think that this will be transferred to the child either by the parents talking to him/her or by hitting him/her.

(P 14)

- ◆ Today's mothers early in the morning will get their bag and get together in the neighbour's house, drink their coffee and boast that their child is the best pupil . They will fight which child is the best pupil, and because of that, mothers want their children to get 10 no matter whether they deserve it or not.

(P 8)

Parents seem to exert pressure on teachers for their children to get higher grades. Two

teachers, P 14 in the extract above and P 8 attempt to explain this. They claim that children's grades have a social value. Mothers compare their children's grades and boast about them. Because of this competition they exert pressure on the teacher to give higher grades to their children. As we saw earlier, this strategy is sometimes successful. In Greece even primary school grades have a social value which gives status to the family of the. As reported by P 14 children who do not get high grades may suffer as a result through some form of punishment. Although only 2 teachers touched on this issue, this dimension of grading needs further investigation.

5.2.2.1.5. Issues raised for further investigation in the questionnaire study

The questions raised in the interviews about teachers' perceptions of the direct and indirect effects of the family on grading are:

how important is the physical environment for pupils' attainment?

how important is the psychological environment for pupils' attainment?

how important are a number of factors mentioned in relation to the psychological well being of the pupil; parents divorce; family discord; death of a parent; relationship with friends.

Is cooperation between parents and teachers important for pupil attainment?

If so, why?

Does the educational level of the family affect attainment?

If so, why?

Does the financial level of the family affect attainment?

If so, why?

Can schools and teachers compensate for disadvantages in family background?

Do parents ask teachers to assign higher grades to their children?

Do teachers give higher grades to children whose parents are related to them (friends relatives etc)?

5.2.2.2. Language

The role of language in education is an issue that has been extensively examined by educational and social research. The debate about the existence or not of the linguistic codes suggested by Bernstein (1971) and the research findings by Labov (1971) were the focus of attention in the 1970's. The interviews with the Greek primary school teachers showed that differences in language among pupils are perceived to affect both their attainment and grading.

The question of language was raised by 15 of the teachers. Their views were similar. All 15 accepted the fact that children who come from different socio-economic backgrounds have different linguistic competence. Only one said that this does not apply because he teaches in a small village where the social background of the pupils is the same. The teachers also accepted that the linguistic competence of children affects their attainment and thus their grades. Some attempted to give an explanation for the phenomenon and some referred to the compensatory effects of school in linguistic disadvantage. In fact, the teachers seemed to believe that discussions in the classroom could compensate for the lack of the linguistic experience of some pupils.

-Something that we haven't touched up to now is the language of the children. Do you think that children come to school with different language skills?

- ◆ Of course with different linguistic experiences, and listening experiences, and others. Some children come to school and they do not talk because their parents do not allow them to talk, and some other come with a lot of language which is not quality language though, and some other come with a language which is of a very good quality, and they understand everything etc.

(P6)

-Let us have a look at the language in relation to achievement.

- ◆ Definitely, children who have a good language level from home, achieve

more it affects written work, tests, but it also affects achievement in general. When you ask a question and the child is able to answer with fluency, this pupil for sure is going to be a better pupil. Without wanting it affects you. That is because he answers what you want him to answer. The correct answer is that. Sometimes because I am very sensitive in children matters I tried to control the factors which are not personal. Of course you cannot do that, because this is the pupil, he comes into the classroom and he is like that. If his language is poor, especially in the lower year groups it the school's work to enrich it. When the child comes in the fourth or in grade 5 and his language is still poor, then you cannot do much.

(P5)

Some teachers acknowledge the importance of language skills and recognise the children come to school with different linguistic levels. They all agree that language affects grading even though the teacher may attempt to take account of this. The teachers also seem to believe that school can compensate for the linguistic disadvantage of some children. In the extract the teacher claims that it is easier for the school to intervene during the early years. During the process of the interview she gave an example of how this can happen:

-Can the school do anything?

- ◆ -Look the school can do that, definitely. Provided that it is not the way it is in Greece. When it creates groups with discussion, and a discussion takes place.

-We are talking about Greece, can school in Greece do anything?

- ◆ Yes it can. If a teacher has imagination s/he can do a lot. The national curriculum is very flexible in Greece. Let it be as it is. It tells that you have to teach this thing. I remember once when the inspector came to my class. This a long story of course but I am going to tell it to you. I taught the second year group then. I was teaching the professions at that time. All the children talked about the profession of their father, we had some pictures and they chose the

profession and they put it in front of them, and then all of the children chose the profession that they wanted to be, all of the children in the classroom. I had twenty two children then. When the teacher gives the opportunity to all the children in the classroom to talk... The inspector was impressed. But I did not do that because of the inspector. This is how I do my job all the time. He was impressed, because he told me that he did not expect to see those things going on in a classroom. If therefore the teacher gives the opportunity to the children to talk and he does not just say a few things and then he asks them to draw in the exercise book. All right it is possible how can it not be possible (for the school to improve the linguistic level of the child) ? Definitely. It is the second. First of all is the family and also the friends of the child. Therefore if you put them working in groups, I used to work in groups in my class. Of course they overdid it sometimes, and I told them you are going to talk about the rose tree, and if they had the chance to talk, it helps a bit.

(P 5)

The importance of this extract is not related to the particular example of group work in the classroom. The importance of it lies in the fact that this teacher believes that she must go beyond the curriculum in order to manage to organise activities that involve discourse among the pupils and not only between the teacher and the pupils. It is not surprising that the main idea of the first answer to the question if the school can do anything was 'it can, provided that it is not the way in which school operates in Greece'. Afterwards the teacher remembered activities which promoted pupil group work, which involved conversation among pupils and provided the opportunity to talk. Other teachers shared the same opinion without however being as specific:

-Let us discuss now the role of language in grading. Do you think that children come to school with language of a different level?

◆ Definitely.

-How does this affect grading?

◆ It affects it in a positive or in a negative way according to the linguistic level of the children. There are some children who come from a poor home environment poor linguistically I mean, the child comes to the first class of the

primary school with 500 words and the teacher cannot even communicate with this child and it is very difficult for it to attend to the lesson. Another child who comes from an environment with rich vocabulary digests school knowledge very easily and moves on very easily. It is not of course a determinant but it helps very much.

-Let us see now how language is related to grading. First of all does the child who has an extended vocabulary achieve more?

- ◆ Yes it affects grading in a direct and in an indirect way. The child with an extended vocabulary achieves more compared to a child with a more restricted vocabulary. He will get a higher grade because he achieves more.

-Do you think that the school can play a role in improving children's language?

- ◆ Of course. It must improve the linguistic ability of the children and it does so. School helps towards the enrichment of the language of the child.

(P 6)

-You told me before that the participation of the children in the classroom plays an important role in grading.

- ◆ A very important role.

-How does the linguistic ability of the children affect that then?

- ◆ Of course these two are related. Discussion in the classroom has helped children to improve their language a great deal because language needs to be used in order to be improved. Not only to be written, it needs to be spoken first and then to be written because if you cannot speak the language you cannot write it, and conversation in all subjects is important from discussion about a grammatical phenomenon to anything you can imagine. Even discussion during music education.

(P 13)

Participants 6 and 13 also believe that school can compensate for the linguistic disadvantage

of children through discussions that can take place in the classroom. The same participants stressing the importance of language were among the ones that placed an important role on the participation of pupils in the classroom. They see participation as affecting language and ultimately grading. The remaining 13 teachers who touched on the subject of language accepted that the higher the linguistic level of their pupils the higher their grade. However, they did not mention anything about the role of school in language enrichment. Characteristic is the answer P 3 gave to the question of how the linguistic level of the pupil can be improved:

- ◆ Yes there are some children with richer vocabulary , who know words that I wonder where they hear them. This is due to the books that they read, to the fairy tales, to their contact with the older ones. I'm not talking about oldish words that they do not understand, because there are children like this who behave as old and these children do not make a good impression on the teachers. I mean, you say that this child should not say such words, talk like an adult, it should talk like a child.

- Except from the family where else can a child improve its language?

- ◆ I think from his friends. If he talks with other children, if he goes to play at a friend's house or in the park or in the street, the child will hear a word that he has not heard before, he will use it. If the child is at home all day long and the only thing that he listens to is the TV and there is no adult around to hear something more, the child becomes disadvantaged.

(P 3)

The important thing about this response is that P 3 does not mention school as a place where the linguistic level of the child can be improved. She mentioned a number of things like reading books, fairy tales etc, as well as interaction with peers and adults as factors of linguistic influence. We saw before that the P 5 stressed that 'if the teacher has imagination s/he can do a lot'. In fact the curriculum directions which appear in the teacher's book do not encourage group work especially in the subject of language. Most of the work is done by the pupil alone, either by filling in the exercises provided in the book, or by orally answering the reading comprehension questions asked by the teachers which are also provided in the teacher's book.

5.2.2.2.1. Direct influence of linguistic ability in grading

How teachers perceive the role of linguistic ability in attainment, and how it can be improved have been presented above. However, one teacher suggested that linguistic ability has a direct influence on grading. It appears that in test assessments, some teachers are influenced by the linguistic ability of the pupil.

-Let us have a look at the following example. In a subject where language is important say history or religious education, a child writes in a test the facts that you ask for correctly stated, using correct language and another child writes the same facts using poor language. Will language count?

- ◆ It does count. Because when we give tests we pay attention to the linguistic expression of the child, whether the child is able to write, to articulate, to express himself properly.

It seems therefore that even in classes where language is not the central concern of assessment like history, RE Geography, etc the linguistic ability of the pupil affects his/her grades. At least some teachers are affected by the linguistic expression used to describe the facts asked for in a test, and not only by the degree of knowledge of those facts. If in a test for instance children are asked to write about, say, a battle, the linguistic ability of two children will differentiate their grades even if their knowledge of the events is the same.

5.2.2.2.2. Issues raised for further investigation in the questionnaire study

- Do teachers believe that linguistic ability is related to the family background of the pupils?
- Do teachers believe that linguistic ability is related to differential attainment in different types of assessment (oral, written)
- Do teachers believe that linguistic ability can be improved, and how?

-Do teachers believe that linguistic ability affects grading of different types of assessment?
And an issue which has not been touched:
Will teachers reward linguistic ability per se by giving higher grades to pupils with higher linguistic ability ?

5.2.2.3. Individual differences

The personal characteristics of the children and their role in attainment as perceived and assessed by primary school teachers will now be considered. The issue of, individual differences in general, and intelligence in particular was discussed with all the participants. The questions attempted to investigate how primary school teachers define words like intelligence, how they perceive intelligence in the classroom, what intelligent behaviours they observe in the classroom and what is the role of intelligence in attainment and grading. Participants' answers to such questions differed widely. This reflects the debates about intelligence which have been ongoing for decades. Issues concerning teachers' perceptions of the nature of intelligence or the influences of heredity and environment on intelligence, will not be considered. Only teachers' views on the relationships between intelligence, attainment and grading will be considered.

5.2.2.3.1. Definition of intelligence. Intelligent behaviours in the classroom

Most of the interviewed teachers were not aware of current theories of intelligence. Their remarks were based either on early theories of intelligence which may have been presented to them when they attended the Pedagogic Academies, or they are the result of their experience in the classroom. The exception to this is P2 who seems to be aware of the theory of multiple intelligences:

Think of two pupils who had the same teachers. Is there any chance for one to be better in language and the other in maths?

- ◆ Yes, I think that you need a different kind of thinking for language and maths. I believe that there is mathematical thinking and linguistic thinking because we took as an example language and mathematics not only thinking but intelligence in general, as there is music intelligence, or kinaesthetic intelligence, I believe that very much.

(P 2)

It must be remembered that P 2 at the time of the interview was doing a PhD in music education which gave her access to recent theories of intelligence. Most teachers however did not appear to be informed by such theories. They define intelligence through their teaching experiences.

A major question that arises is how teachers assess whether a child is intelligent or not as most claim that there are more and less intelligent pupils. In Greece there is no educational psychological provision or any other mechanisms for measuring intelligence using IQ or other tests in mainstream schools. Taking this into account the question of how teachers distinguish pupils as more or less intelligent becomes pertinent.

Speed in understanding and reacting is the most commonly mentioned attribute of the intelligent child. Eleven teachers, 65% of the sample mentioned that speed of understanding was a basic characteristic of the intelligent child. Most mentioned it when asked to describe what they meant by the term intelligence. Four were asked directly if they thought that speed of understanding was a characteristic of intelligence. Together with speed which is a quantitative characteristic easily assessable, most teachers implied a qualitative component of intelligence which is interwoven with speed and described as ease of learning. Intelligent children are the ones who understand and learn quickly and easily. The examples that they give illustrate what they mean.

- ◆ For example in maths I say the same things and I give the same questions, I see that some pupils achieve, they are faster etc, these pupils, they have either understood the way that I give the questions and they operate in the same way as me, this is one thing. The other thing is that they may have a special ability in mathematics, and this is the most likely. Maybe it is both of them.

(P 5)

- ◆ When for example you explain something easy, say division, you have thirty children in the classroom and two of them understand it immediately. Why is that? Because they love mathematics but also because their intelligence is higher, that is their mind operates fast.

(P 6)

- ◆ Yes. The other day I tried to teach them some things about the endings of Greek verbs and nouns. Some children understand some procedures when you say things very simply, when you tell them that all the words that have in front of them the article "to" and end in "l" this "l" is written with a "iota" except for three words that anyway they do not use. Only the word "vradý" (evening) is worth telling them. Some of the children understood it, while others still forget to put the article "to" in front of them or because they have not learnt yet that there are some words which take an article in front of them and which article that is, so even the female words that they learn they put an "l" at the end.

(P 1)

In these extracts three teachers give examples of how they distinguish intelligence in the classroom. They describe how when the teacher teaches in the same way some of the pupils understand something quickly and some do not. Their common belief is that since the teacher is the same and the way of teaching is the same it is the cognitive ability of the children which is responsible for differences in understanding. This was described by many teachers as evidence for cognitive differences among pupils. Three teachers (P6, P12 and P15) attempted

to be more specific in defining intelligence by relating it to cognitive functions. They claimed that besides speed and ease of learning, the ability to think critically is an indication of intelligence:

-Didn't you mean intelligence before, when you told me about mental ability?

- ◆ When you have a kind of mental ability when you perceive what is going on around you faster than others. For lots of children some things pass without being perceived while others see them and understand them. In the classroom environment the same thing happens. Some children learn a lesson more easily. These can criticise also this lesson because they can see it more openly. Anyway the objective is not to learn a lesson by rote, some words, some spelling, or learning to read properly, but to be able to criticise, to be able to relate two units, that is a pupil who has a more open mind can very easily relate and criticise persons or situations in history for example. There may be pupil who tries, tries hard, but hasn't yet got this ability.

(P 12)

Many teachers seem to relate intelligence to attainment in school subjects. According to 7 participants, 41 % of the sample, differences in intelligence can be seen in differences in behaviours which were described as criteria for high attainment. According to these participants intelligence can be seen in 'the questions that the child asks' (P4) 'in achievement and everyday knowledge' (P5), 'in the answers that the child gives' (P7), 'in the interest and the attention of pupils' (P8), 'in thinking which provides solutions to questions and exercises' (P11), 'these children do not correspond to the book' (P14), 'answers to questions' (P15). These are some examples:

-Can you give me examples of non intelligent behaviours?

- ◆ There was a girl who tried both at home and at school, but she couldn't think some things or to provide a solution to those things, whether these were

written exercises or oral questions. She could not find a solution to what she was asked, and this was due to her intelligence. She was not intelligent enough to perceive some things...

(P11)

- ◆ How can I see it? I can see it if I ask a question and he answers; of course I can see the ability from attainment. Tests reflect both the ability and the knowledge a pupil has.

(P 5)

In general there is a tendency for teachers to examine intelligence within the educational context. Most make no attempt to relate intelligence to out of school activities. Only one teacher attempted to relate intelligence to interest.

- ◆ I'm talking now about school knowledge and this kind of stuff, because if you ask him to do something outside of the classroom, he is going to do it much better maybe than anyone else. We are talking about a certain domain of work within the classroom, but also if we start talking in the classroom about say, engines, he knows everything about engines. Maybe he is influenced by the work of his father. Maybe he likes this job very much. He knows a lot of things about engines that even I do not know.

(P 14)

5.2.2.3.2. Relationship between intelligence and grading

The evidence from the interviews suggests that intelligence is viewed by teachers within the educational context with just one exception. It is likely therefore that intelligence, as seen defined and described in the previous sections affects grading. Eleven participants discussed

the relationships between pupils' intelligence and grading. From their answers it seems that intelligence is related to grading in two ways: According to the first intelligence and grading are not related in a causal way. That is, a child is not going to get a higher grade just because s/he is intelligent. High grades are the representations of attainment, and high attainment may reflect intelligence but it is not enough by itself for high attainment:

-Think of a pupil that achieves up to level A, easily, and another who achieves up to the same level after s/he has tried hard. Whom are you going to reward more?

- ◆ Whom am I going to reward more... I believe that the reward is going to be exactly the same for both.

-So they are going to get the same grade.

- ◆ Look when I give a grade for achievement, if it is the same....

-When you assess you do not only assess achievement, you give them a grade at the end of the term.

- ◆ If the achievement of both pupils is the same they will get the same grade, but personally I am interested to work with quick pupils.

(P 2)

-Is ability assessed in the end of the year?

- ◆ This is not a factor by which we assess the children. There might be a slow learner and a fast learner, but this is not going to count. What we are going to count is their final attainment. When we give a test, we are going to see the written work, what one has done what the other has done, and accordingly we are going to grade. Also in the classroom when we ask questions, we see what they correspond to the questions that we make in one way or another, and accordingly we are going to grade.

(P 15)

- ◆ No, never. By no means, I would never give a high grade for intelligence by

itself. That is, intelligence does not mean anything to me unless it is combined with effort, interest, and classroom participation.

-Does intelligence per se produce high results?

◆ No. It does not do anything by itself.

(P 6)

On the other hand there are teachers who seem to relate intelligence and grading in a causal way. For some intelligence and the high achiever are identical. Some seem to believe that intelligence should be directly rewarded:

-Does an intelligent child get high grades?

◆ Yes definitely.

-Will you give a higher grade to a child because he is intelligent?

◆ Of course I will give him a high grade, because I cannot be unfair to him.

(P 7)

-Is there a chance for some children to be more intelligent than other?

◆ Of course, an intelligent pupil usually means good pupil.

(P 13)

-Will he get higher grades because he is intelligent or because he wrote well in the test?

- ◆ Not only because he wrote well but exactly because he is intelligent. He must be rewarded. What can we do about it? This is how he came to this world, with this intelligence with the cleverness let us say of his parents.

(P 17)

The first view where intelligence and grading do not have a direct causal link, was expressed by 7 teachers and the second, where intelligence is viewed as causally linked to grading by 4. This is an issue which needs investigation in the next phase of the study.

In explaining teachers' opinions on individual differences and intelligence, the analysis showed that the existing academic debate on this issue affects the ideas of Greek primary school teachers. Their approach to this issue differs as well as their definition of it and the importance of it with regards to grading. Contradicting ideas were expressed which will be explored further in the questionnaire survey.

5.2.2.3.3. Issues raised for further investigation in the questionnaire study

Do teachers believe that there are differences in intelligence among their pupils?

If yes which behaviours exemplify these differences?

Do teachers believe that intelligence is related to high achievement?

Will teachers reward intelligence per se by giving higher grades to some pupils because they are intelligent?

5.2.2.4. Motivation

5.2.2.4.1. Effort

According to the participants motivation is manifested in the classroom through the effort that

pupils make. One of the most commonly mentioned characteristics of the high achiever is effort, how hard s/he tries etc. The main concern of the present interviews was to investigate the perceived relationship between effort and grading. All 16 teachers who discussed this issue expressed a positive attitude towards pupils who make an effort. There is however a difference in the way they reward it. Most teachers reported that they would reward effort per se. They would give grades to children who made an effort higher than the grade they deserve according to their attainment. However some teachers argue that effort results in higher grades simply because attainment after effort is higher.

Teachers were asked to: 'Imagine a pupil who achieves up to a level, say 8, without any effort and a pupil who achieves up to the same level after much effort. Would you give a higher grade to the first pupil in the term report because of the effort that he made?' The majority of teachers 12 out of 16, (75%), seem to be willing to reward effort per se by giving higher grades than their attainment to pupils who according to them make an effort. Effort for some of them can be the compensatory factor for unprivileged family background or even for lower mental ability:

-Let us consider another factor. Does effort count when you assess your pupils?

- ◆ Of course it counts. Effort counts very much. Because there is a chance for a pupil to come from a family environment where no one can help him. Sometimes the environment is negative compared with a child who comes from a positive family environment. That is from parents who are educators or educated, and they receive help at home from someone who gets paid for this. They have a lot of books, and compared to this a child who comes from... say a gypsy child, then we count effort. Sometimes the gypsy child may get a better grade than the child I mentioned before, although his attainment in tests is lower. Because if we count effort and the environment this means that this child gives much more in order to get what he must get.

-Will therefore a child who reached a level of achievement of say 8 by putting a lot of effort get a better grade compared with another child who reached the same level without much effort?

- ◆ Yes, the first one will get a nine.

(P 6)

-You told me that one characteristic of the high achiever is to be hard working. Do you appreciate the effort that the pupil makes?

- ◆ Surely, it is the most important for me. Because there is the chance for a pupil not to have inherited those mental resources which are necessary to be... but when I see that the child tries hard, really tries, I must reward him.

-Let us say that a child gets an 8 in tests after a great effort and another child gets an 8 without effort. Will the first one get a higher grade in the report due to his effort?

- ◆ Yes.

(P 11)

-You did not mention it but is effort important to you?

- ◆ Yes definitely. That is, a child may be by nature not a genius. He might be just average. But if a child tries hard, I definitely appreciate it. And I praise this child more than the others.
-

-Will effort be apparent in the scale that you use?

- ◆ If a child reaches a C with effort, he will get a B. But definitely he will not get an A.

(P 3)

According to S 3 effort would be a factor which affects grading positively to some extent. A child would get a B due to effort but definitely not an A. For other teachers effort does not seem to be rewarded by a higher grade. Three out of 16, (23.4%) appear to give grades as a result of attainment without taking into account whether or not this was the product of effort:

-Let us imagine a child that for some reason reaches a level of achievement x after a huge effort and another child who reaches the same level of achievement without any effort. Will the first child get a higher grade because of the effort made?

- ◆ No. Because if for example I have a pupil who is extremely clever. I cannot say that another pupil is going to get higher grades because he tries. He does the same things as well without trying.

(P 3)

-Let me ask you, if a child attains level 8 after a lot of effort and another child achieves the same without effort. Will the child who made an effort get a higher grade than his attainment?

- ◆ They are going to get the same grade. We cannot be unfair to the child who is better due to his intelligence, but I explain to the children that x pupil gets a 10 because he tried, but I cannot deny this from y who also did very well.

(P 7)

According to these teachers, a sense of fairness does not allow them to give a higher grade to the ones who reached a certain level of achievement after effort, in comparison to the ones who reached the same level without effort. As will be seen later most teachers believe that within the classroom there is a shared reality in which everyone, both pupils and teachers know who is better than whom and they agree that they have to respect this when they give grades. For the minority of teachers described before, effort per se is not rewarded because if this happens, justice is disturbed.

5.2.2.4.2. *Interest*

Another factor which affects grading, falls within the category of motivation and was mentioned by a number of teachers is the interest that the pupils exhibits. Nine teachers mentioned that the interest that some pupils show in some or all school subjects has a positive effect on their attainment because interest results in more effort. Some also claimed that they

would give higher grades to those children who expressed interest in what they were taught:

- ◆ Usually, the children who show interest, I believe they achieve. I think that interest is a motive which leads the child towards learning. There is a chance for a child to show some special interests to out of school things, and when I say out of school, I mean negative things, things that a child should not learn at this age, because he is still a child. The children who are interested in things which are related to childhood usually achieve. And definitely the interest that they express is assessed by the teacher.

(P 11)

-What about the interest that a pupil shows in particular subjects?

- ◆ This, as well, helps in learning more. This is self evident as well. If I am interested in history, I will study more, and I will look for more things apart from the ones contained in the textbook.

-Does that mean that I will attain more?

- ◆ And I will attain more.

-If a pupil attains to a certain level without expressing any interest and another pupil attains the same by expressing interest, will the second be rewarded because of the interest that he expresses?

- ◆ Yes, but anyway interest helps. There may be a pupil who has a good memory for history and there is a chance for this pupil to achieve in history without trying hard. The other one who shows interest does well because he is interested in history, because he studies hard.

(P 16)

The way interest is described by the teachers implies intrinsic motivation and the effects that this has on attainment. It is a common belief among teachers who touched on this that interest

that pupils show in some or all subjects helps them to get a higher grade.

5.2.2.4.3. Goal setting

The issue of goals setting by pupils or by their families for them was also touched on by a relatively small number of teachers. Five teachers discussed the issue of whether or not primary school pupils set goals for their later life and tried to achieve them through school. Two of them believed that at least some pupils see school as a medium to achieve their goals. The remaining three believed that children are too immature at this age to really have long term goals:

-Another thing that you mentioned when you described the high achiever is that he places demands on himself. What do you mean by that?

- ◆ These demands derive of course from the self esteem and the self image that the children have. This is mainly created by the family 'you must be a high achiever, you are going to be a doctor, or a lawyer, etc'. Or they see parents who are educated and their children themselves want to become educated. And if this child of course, let's say that he has a 'healthy' in inverted commas view of himself, he knows that he can achieve and demands from himself to achieve what he can. This is good because this is a motive at the same time for work, because he is going to see that in order to become what I want, and I want, say, to be a doctor, I need to work. The thing is of course is that these demands do not become excessive. That is, not to ask to get an A all the time, because we all make mistakes, and the child has to understand this. For these demands however most of the time the family is responsible. It is not the child's fault. These things are created by the family.

(P 5)

-Have you noticed children who have set goals for themselves and how this affects their performance?

- ◆ There are children like this but only a few who from very young age set goals for themselves and try to reach them.

(P 6)

-Have you met children who set aims for themselves, things like when I get older I will become this or that?

- ◆ This happens but it is not the result of their own thoughts. It is usually the parents who are behind such decisions. Usually brain washing takes place, and if the child fails, either in the primary school or later on in his life, there is a great disappointment. I believe that this operates in a negative way. At this age children are too immature to decide about their future. There may be some professions which may provoke interest, but I don't think that a child would say I want to become a lawyer, because this profession is too distanced from the child. Children want more action in the profession that they choose.

(P 11)

-Have you ever noticed children who set long term aims for themselves and try hard in order to achieve them?

- ◆ No. There are children who say I want to become a doctor, a policeman or a teacher but they do not do anything in order to achieve it. They just say it.

(P 12)

From these conversations two major issues arise. The first is the role of possible selves in primary school children, if they exist, how they are formed, and if they have any motivating properties regarding the attainment of pupils. The second concerns the self-fulfilling prophecies, parents' expectancies of their children. From these extracts it appears that both occur in the primary school years. But teachers do not seem to relate these factors to attainment. The role of family is recognised as one of the major factors in pupils' attainment, but not necessarily through goal setting, or impositions by the family or family expectancies

as a mediating process between family background and attainment. The evidence from the interviews on these issues needs clarification in the next phase of the study.

5.2.2.4.4. Motivating effects of grades

Two teachers mentioned the motivating effects of grades, participants 12 and 14. They claimed that the role of grades is not only a representation of attainment but a motive which may have positive or negative results:

- ◆ A certain pupil with a specific grade may become discouraged and stop effort. There may be a pupil who might think that I should try more and get better grades for my parents and my teacher, or he may think that I should work harder in order to become a doctor for example. This is related to what the family has taught the child. It is related to the character of the child.
(P 12)

- ◆ If you give a low grade to a pupil who does not achieve much you destroy him completely. We can use grades to lift morale a little bit. That is, the child has the feeling of how well he can achieve, of how well he can do in a test. More or less he is aware of his attainment. By giving one or two points higher, he both feels satisfaction because his self esteem does not fall in front of his classmates. On the other hand he tries harder. At least this is what I have observed. There are only a few cases when the child just feels satisfied with himself and does not do anything. The one who is satisfied with himself is the one who even if he got a five, would simply not say anything, because he does not say anything anyway. But I see that children try harder. And the specific pupil that I told you about before, tries, he does not muck about, he tries really hard, but there is no achievement.
(P 14)

The motivating effects of grades was not extensively raised in the interviews. The above extracts illustrate that there are different opinions on this issue. The first P 12 believes that according to the character and the family of the child the effects of low grades can be either positively or negatively motivating. The second believes that high grades can only have motivating effects because nothing can be done about poorly motivated pupils. The issue of teachers' beliefs on the motivating effects of grades needs further investigation.

5.2.2.4.5. Issues raised for further investigation in the questionnaire study

Do teachers believe that effort and academic achievement are related?

Do teachers believe that interest and academic achievement are related.

Do teachers believe that pupils possible selves and achievement are related?

Do teachers believe that parents' expectancies and achievement are related?

Do teachers believe that high grades motivate pupils to work harder?

Do teachers believe that low grades motivate pupils to work harder?

Will effort be rewarded per se by the award of grades higher than attainment?

Will interest be rewarded per se by the award of grades higher than attainment?

Will goal setting be rewarded by the award of grades higher than attainment?

5.2.3. Factors affecting grading

Factors affecting grading

Behaviour

Teachers' personal likes

Pupil differential attainment in
different subjects

Pupil awareness of attainment

The previous section considered pupil factors that influenced grading indirectly by affecting

attainment, and directly. The analysis of the interviews revealed four groups of factors which affected grading directly for some teachers, since they are not linked with academic attainment. These were behaviour, personal likes, differential attainment in different subjects and pupils' awareness of attainment. How each one of them affects grading is described below:

5.2.3.1. Behaviour

Another issue which was raised in the interviews was children's behaviour was the classroom. In the reports that Greek pupils receive every term and at the end of the school year comments are made about the behaviour of the pupil. But behaviour is not supposed to be reflected in the grades of the pupils.

The majority of interviewed teachers appeared not to take into account pupil's behaviour in grading. Ten out of 16 teachers, 62% of the present sample, replied that they were not affected by the behaviour of the children when they grade. Three participants of this group reported not only that disruptive behaviour did not affect their grading but also that they prefer lively children and not quiet ones:

- ◆ No not for me. No not at all. I have children who are very intelligent but who are hyperactive they create problems they talk to other pupils, but grades are grades, it does not affect me may be because I like lively children.

-What about the opposite, if they are very quiet.

- ◆ The same but this annoys me a little bit. I try to boost their self confidence because they are usually children who lack self confidence and they are very quite, but it does not affect marking. Not at all. That is I have children who are very lively and who are good pupils and others who do not talk at all and they are good pupils and get the same grades. I cannot say that behaviour affects me.

(P 4)

One teacher mentioned that during the school year uses the threat of diminution of grades if their behaviour is not acceptable but in the end she does not do that:

-What is the role of behaviour in grading?

- ◆ No when I mark no matter how many times I told them as a threat, as I told you before, that I will give them lower grades because of their behaviour I don't do that.

(P 3)

Other teachers explained that children's behaviour is the reflection of home based factors and teachers should try to find out which these ones are, and intervene at the root of the problem if they can:

Let us talk now about behaviour. Does behaviour affect you in your grading?

- ◆ No it does not affect me at all. On the contrary I like naughty children in the classroom the live the awake ones.

-Isn't there a chance for a child to create a problem in the classroom?

- ◆ Even if one creates problems it will not affect the grade, because troubled behaviour is not his fault. Whenever you see problematic behaviour look for a problematic family behind it. A 7 year old child is not to blame because it is hyperactive or aggressive, it is the victim of a family which made it to be like this. If I the teacher condemned it then what is going to happen? By no means, on the contrary, our target is to help these children at school not only the clever ones, the clever child will catch everything that the teacher might say. What is going to happen with this child in the classroom? The teacher in the classroom is for these children.

(P 6)

On the other hand there were teachers who admitted that behaviour affects grading. Six out of 16 participants, 35% of the sample mentioned that unacceptable behaviour will lower grades. Some seem to understand that this should not happen but it does. And as shown in the following extract it is usually the low achievers who get even lower grades due to their misbehaviour:

-Let me ask you something else. Does behaviour count in grading?

- ◆ I think that behaviour counts, it has got some influence on the way that the teacher assesses. If a child is polite, is cooperative, you are certainly going to assess it in a more positive way in comparison to another who creates problems with his behaviour who does not respect me and his classmates who has got an antisocial behaviour, although this should not happen.

-Let us say that you have a high achiever who is naughty and a low achiever who is naughty. Do you think that their behaviour is going to affect your grading the same?

- ◆ I think that no. The high achiever has got certain positive elements that are going to affect you in a positive way and that is his attainment. The low achiever with a bad behaviour although is not treated by me like a black sheep, usually is being treated like that, because I am talking now in general.

(P 11)

The connection between achievement and behaviour was made by more teachers. For these teachers a low achiever means a child with troubled behaviour. Some present explanations for this:

-Is behaviour of the pupil in the classroom related to attainment?

- ◆ The rule is that these children who are naughty do achieve but not to a great degree. Of course there are children who are naughty and they are intelligent and they achieve but usually the naughty children do not achieve as much and they concentrate in naughtiness, they misbehave into the classroom in

order to attract attention.

(P 15)

- ◆ If this child is naughty into the classroom, because these children usually when they cannot do their work they are very noisy in the classroom, we know that, in this case and I have had many cases like this, when I try to stimulate his interest, but I will give him a low grade and I will explain to him why.

(P 5)

According to P 15 and P 5 low achievement and bad behaviour are usually connected either because pupils want to attract attention since they cannot do so in another way, or simply because they cannot do their work due to their inadequacies and they mess about in the classroom. In general participants who accept that behaviour plays a role in grading usually mean lower grades for the low achievers. Participant 15 talks about intelligent children who are naughty but clarifies that these are the exception to the rule, stressing that the rule is that low achievers usually are the ones with behaviour problems. Moreover, participant 11 although he clarified that he does not speak for himself, mentioned that there are black sheep in classrooms, ones who are low achievers and misbehaving. Implicitly but clearly these participants describe a marginalisation process of some pupils that takes place in primary classrooms and seems to have the form of a vicious circle. That is, low achievement leads to misbehaviour, which leads to even lower grades and so on. The percentage of teachers who give lower grades for bad behaviour of the present sample, 37.5%, more than one in three can be characterised as quite high. The next phase of the study will explore this issue with a larger sample of teachers.

5.2.3.1.1. Issues raised for further investigation in the questionnaire study

Do teachers give lower grades to children exhibiting disruptive behaviour?

Do teachers believe that low attainment is linked with disruptive behaviour?

Further to these issues raised in the interviews:

Will well disciplined behaviour influence teachers to give higher grades?

5.2.3.2. Teachers' personal likes of children

During the interviews, on many occasions, a number of teachers showed a special preference for particular pupils, or pupils with specific characteristics. Some teachers demonstrated a preference for lively as opposed to quiet children. The question is whether such preferences result in a biasing of the grading of pupils. Thirteen participants raised this subject either indirectly in the course of the interview or directly after they were asked.

Four teachers expressed particular pupil preferences. For example during the discussion of whether grading takes place by the criteria set by the curriculum or by the teacher S 1 said:

- ◆ If I like the child and I feel that for some reasons by these criteria s/he is being unfairly treated, I will then try to help him by spending more time with him so that he gets as better as possible as far as his achievement is concerned so that he responds to the criteria set by the school. If there are cases of children that you do not dislike them exactly by for some reasons you have a more negative side I will try to assess them by these criteria.

(P 1)

In other words P 1 says that the more she likes the child the more flexible the criteria for grading will be, while if she does not like another child that much she would assess him/her by the rigid criteria set by the curriculum.

Two teachers mentioned that personal likes for some pupils do exist but they do not affect their grading.

-Are there any personal likes between teachers and pupils?

- ◆ Yes, but I do not want to show them. That is in every class there has been

someone that I liked most but I never showed it to the child. There was always someone whom I liked more not because he is a good pupil but because he was a good child.

-His/her character you mean.

- ◆ Yes a well spoken child, neat, polite, who might not be the perfect pupil of the class but who might be.

(P 3)

-Do you think that there are personal likes and dislikes between the teacher and pupils in the classroom?

- ◆ Unfortunately yes.

-Does this affect the way that you assess your pupils?

- ◆ This has not affected me in the way I have graded up to now. But it does affect my everyday relations with the children.

(P 6)

In these answers is a recognition that such preferences should not occur. Participant 3 believes that although they occur, they should not be expressed to pupils and P 6 believes it is 'unfortunate' that they do take place. Another group of teachers with similar ethical views admit that preferences for specific pupils affect their grading.

.....But definitely some personal likes and dislikes operate and I would say that the subjective factor counts. If there is a pupil that you like very much. This should not affect you but it does affect you.

-That means that personal likes affect grading.

- ◆ Yes there are personal likes.

-Can you describe the kind of child that you like?

- ◆ I have a child in my class who is quiet, does not create any problems, and his face is attractive and he has a pleasing character. But he does not do at all well in school. He always comes absolutely unprepared.

-Did you take action just because you liked this pupil?

- ◆ I invited the parents of the child to school at the beginning of the school year because I wanted to fail him and he would have to repeat the same year group. You know if the average grade is below 4.5 in the last two year groups of the primary school then the child should repeat the same year group. It is not taking revenge on the pupil, but you are trying to help him. But this is a hard to in the 5th or the 6th year group because the pupil is already old enough. You must spend extra teaching hours with this child privately, and if then he does not improve, then you can fail him. You have to tell the parents that you have done all these things. Two or three years ago, the parent had to agree and sign agreement with the decision.

-You just described how you did not fail a weak pupil because you liked him. Do you give an even better grade to a high achiever because of personal liking?

- ◆ No I don't do that. If a pupil is good, he is good and this is final. Even if I dislike him because of his face or because of any other circumstances like you don't like his father or his mother because they have created a problem I will not give him a lower grade. I will just give a better grade to a pupil that I like. But if this pupil is already good, you are not going to give him a better grade.

-If there are two equally good pupils will personal liking play any role in grading?

- ◆ It is good that such things do not happen.

(P 12)

Participant 12 describes in detail how personal likes affect him in grading. He claims that

personal likes depend on factors like the character of the pupil, physical appearance, the relationship with parents. He also claims that any potential likes or dislikes affect grading in a positive way for the low achiever but not in a negative way for the high achiever. When asked about the role of personal likes for pupils of equal achievement, a direct answer was avoided. Generally there is an attempt by all teachers who accept that personal likes affect grading to avoid giving details by answering very generally:

-Do personal likes and dislikes develop between the teacher and pupils in the classroom?

- ◆ Yes personal likes and dislikes are created on both the teacher's and the pupils' sides, and in most cases they are mutual.

-Is there a chance that these likes and dislikes affect grading?

- ◆ Emotionally the teacher may be affected. But I think that this will not be to a great extent.

(P 11)

Participant 11 responded similarly to P 12. Only four participants stated that they had no personal preferences for pupils:

-Are there any personal likes between you and your pupils which may affect your grading?

- ◆ No , neither this has affected my grading. And I would say that no personal likes have been created in me. I feel that for all the children in my class I feel the same things. I feel neither pity for anyone nor sadness . Nothing. I feel the same thing for all of the children.

(P 13)

The issue of teachers' personal preferences and their relation to grading has been touched on at a superficial level. They do exist at least for some of teachers. The extent of it cannot be

assessed by these interviews. Some teachers admit that they like some children more than others and this may or may not affect or not grading. There is little evidence however in the interviews about how these preferences are formed, the characteristics of the liked pupil, how common they are and whether these are related to grading. These issues will be explored further in the questionnaire.

5.2.3.2.1. Issues raised for further investigation in the questionnaire study

Do teachers like some pupils more than others?

If so, which factors influence their preferences?

e.g.: pupils' appearance, character, family, behaviour, attainment.

Do personal likes affect grading?

5.2.3.3. Pupils' differential achievement in different subjects

Until now the terms high and low achiever have been used extensively implying that the high achievers attain at a high level in general while low achievers have low attainment in general. School subjects are distinct in the Greek primary curriculum. At least hypothetically therefore a pupil might achieve better in one subject than another. A series of questions attempted to investigate whether differential achievement is perceived to exist and how it affects grading. Do teachers give higher grades to some pupils in all subjects because they get high grades in some? There were differences among teachers.

Thirteen teachers raised this issue. Four claimed that it was not possible for high achievers to achieve highly in some subjects and not in others. For those participants attainment was not differentiated among subjects.

Nine teachers accepted that it was possible for children to do well in one subject and less well in another. Two of them describe this phenomenon as very rare. They indicated that assigning

a high or a low grade in one subject would not affect the grade given in another subject. For example P 12 described in detail the way grades were given and how this process takes place so that one grade is not affected by others:

-When we use the term “good pupil” or “high achiever” does this mean that the pupil achieves highly in all subjects? Is it possible for such a pupil to be good in one subject, say, language and not in another, say, mathematics?

- ◆ A good pupil is good in general but in one subject he can be distinctively good. This can be any subject, mathematics language or religious education. It also has to do with how they approach the subject that they like more.

-Is it possible for someone to be good in language and not to be so good in maths or the opposite?

- ◆ Yes it is possible.

-Is it possible for you to be affected by the achievement of a pupil in a subject and give him a better grade in another subject where he does less well, or the opposite?

- ◆ No it does not affect you. Why should you be affected?

-Well if you had a pupil who is very good in language and not so good in maths say that he achieves a 10 in language and a 6 in mathematics. Is it possible for you to increase the 6 because of the good results in language?

- ◆ No it is not possible. Look, I keep a little book like a diary that we were recommended to keep a couple of years ago. This idea was abolished, but I keep it informally however. I keep notes in it about the attainment of each pupil in each subject every day, how hard they tried each day, if they did their homework. There are those who come to school having done their homework one day and the day after they come without having done their homework and other times in between. I also keep in there their grades of tests and the grading criteria (formal tests). And when the time comes to give a grade in the report at the end of term I calculate the average. And I think then, because there are some pupils who come very well prepared one day and not at all the day after, or in some tests took an 8 or a 9 and in some others they failed.

Obviously for P 12 by keeping accurate records there is no reason why a pupil's grade in one subject should affect his/her grades in another subject. Four teachers on the other hand said that pupils' grades in one subject did affect grades in other. Moreover, they specified that they would give higher grades to some subjects because a pupil achieved highly in others. All four agreed that this effected grading positively and not negatively. They would not give lower grades for some subjects because of low attainment in others:

-When a child achieves at a high level, does it achieve at this level in all subjects?

- ◆ No it is not necessary. It depends on the personal interests of the child. Because I think that people from the beginning have some direction and I do not know if the fact that some children have some preferences for theoretical or practical subjects is because of social background or their intelligence.

-Let us imagine that a pupil is good in one of these groups of subjects. Will this fact affect you so that you give him higher grades in the other and vice versa? That is, imagine a child who achieves for 10 in language and for 8 in mathematics. Will the 10 in language affect you and you then give him a 9 in maths because he is a high achiever in language?

- ◆ Yes, I do this.

-Do you do it by giving higher grades, or by giving lower?

- ◆ By giving higher.

It seems that differential achievement of pupils in different subjects does occur but a number of teachers may give grades based on overall assessment rather than individual subjects. Some

believed that high achievers achieve equally highly in all subjects, and therefore, the issue did not arise. Although it was not apparent in these interviews, potentially the opposite may occur. That is, the negative picture low grades may create may affect in a negative way the grades in subjects where the same pupil does better.

5.2.3.3.1. Issues raised for further investigation in the questionnaire study

Are pupils perceived to attain differentially in different subjects?

Are teachers affected positively by high attainment in some subjects when they give grades for other subjects?

Are teachers affected negatively by low attainment in some subjects when they give grades for other subjects?

5.2.3.4. Pupils' awareness of achievement and grading

Greek teachers appear from the above analysis to be absolutely free to assess as they believe and feel is appropriate. Specific acts by the Ministry of Education give directions as to how grading should take place, but these directions are not followed by a significant number of teachers. Most teachers agree that the ultimate judge of their grading and the only people to whom they should be accountable are the pupils. With the exception of two teachers, nine out of eleven who raised this issue, suggested that the children know the grade that they deserve. They know which pupils are better than the others. The interviews showed how awareness of pupils' own and others attainment affects teachers' grading. Teachers may be influenced by a number of factors apart from attainment when assigning grades. But grades will be made higher or lower up to the point that they will not disturb the sense of fairness based on pupil's awareness. Pupils awareness appears from the interviews to be the only restricting factor on teachers' potential arbitrariness in grading. The following extracts describe how this occurs:

- ◆ Children are the best judges. They know how to judge. They know who is the best. Of course they do not say this in front of the whole of the class, but at

home they say that he is better than me. I do not allow anything like this to be said in the classroom it is not right.

(P 7)

- ◆ Children certainly know who is good and sometimes precisely what grade each one will get. They are judges as well. And the teacher through assessment wants to be the mirror of this judgment of the children otherwise they may think that he is being unfair to them in a way.

(P 11)

- ◆ Yes, you cannot give the same grades to everyone. There is a differentiation in the classroom and in life in general. What I want to stress however is that the children themselves almost know where they are as well as their classmates. They all know where they are inferior and where they are maybe superior.

(P13)

These teachers stress that there is an obvious difference in the attainment of pupils and that the teacher is obliged to show it. They say that by overtly demonstrating the differences which are already known to the children they support a motivating competition among the children which helps them do better.

Two teachers however, P 8 and P 17, the oldest and most experienced female and male do not agree with the notion that children are aware of their ability and therefore the grade that they deserve, and appear to believe that children of primary school are too immature to make judgements about this:

- ◆ They try to assess themselves but they remain children. They try to judge objectively but with their child like perception. They all say 'I am a good pupil'.

(P 17)

-Do you think that children know who is good and who is not? And does this reality affect your grading?

- ◆ They know, but they are only children. I don't think that I am affected by what they think.

(P8)

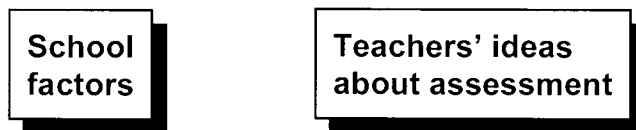
P 17 thinks that children are immature to judge. In contrast to the majority of teachers who believe that pupils' perceptions of the high and the low achiever should be taken into account when grades are given, these two teachers do not feel restricted by that. In fact they do not feel restricted in their grading by anything not even the children's sense of justice. This may be related to their age and experience 34 and 35 years.

5.2.3.4.1. Issues raised for further investigation in the questionnaire study

Do teachers believe that primary school pupils are aware of their own and their classmates' attainment?

Does this influence teachers' grading?

5.2.4. Non pupil factors



Teachers beliefs about a series of factors appear to affect grading. The common characteristic of all these factors is that they are related to the pupil. They are mainly pupil characteristics. The interviews also demonstrated that apart from these there are other, non pupil factors which affect grading. These are examined in this last section of the interview analysis:

5.2.4.1. School factors

The ministry act regulating assessment in Greek primary schools outlines a grading system which is unified for every school in the country. However, according to the teachers interviewed, grading is to a great extent related to the overall ability of the class which is in turn related to the social background of the children, and to the geographical area where the school is situated. The question of the relevance of grades was discussed with 7 teachers. Six agreed that each grade must be regarded within the social reality of each school and some claimed that its value was relevant only within the particular classroom. A grade of 10, for example, which is the highest of the scale may mean that the child has reached the highest possible requirements of one particular aspect of a domain, but it may only indicate that the pupil who was given it is the highest achiever of one particular class. The same pupil might be given an eight in a different class. This most commonly happens in rural villages where children are relatively culturally deprived. Some participants stated that a ten in a village is equivalent to an eight in a bigger town:

-Let me ask you something else now. Do you believe that grading is relevant to the school or not? Let me explain what I mean. Do you think that a pupil who got an 8 in your class would get an 8 in any school or is it just an 8 for your school?

- ◆ No, not at all not in Greece at least. Because the 10 of xxxxxx, the village where I teach, is an 8 of xxxxxx (the big town of the area), and the 10 of xxxxxx is an 8 of the university schools of xxxxxx (the biggest town of the region). We cannot compare children like this. The grade is the result of a comparison of children among themselves. What I do and all of us do this, is to compare the members of the class among themselves. Out of the 12 children that I have this year, this one is the best and this one the worst. I cannot compare them with a child from xxxxxx who has totally different experiences than these children. I remember that I had to teach in a village school once a text with two jokes. One of them was about a theatre where someone bought a ticket, and he bought it again etc. The children did not laugh. And when I asked them I realised that they did not understand it because they had never been to the theatre, they did not know what a theatre was. I cannot therefore compare those children with the children of xxxxxx where more or less 90 per cent of them have been to the theatre, have seen

a performance, and besides the quality of it will know what theatre is.

(P 4)

The above extract illustrates how grading is related to the school. A 10 in a small village may be an 8 in an average town and a 10 in an average town may be an 8 in a good school in a big city. This finding is very important. It demonstrates that one of the basic elements of the Greek grading system, the unique scale which is supposed to represent attainment consistently across all parts of Greece in every school, may not do that. This is admitted by the teachers themselves. Those who work in these different schools report that they use the scale in different ways. On a theoretical level this finding shows that although the aim of the creators of the Greek grading system was a criterion-referenced grading system, what actually happens is a combination of criterion-referenced and norm-referenced grading where the norms are not specified nationally but in each class and school by the teacher. Teachers report that in every class some pupils will get the higher grades not because they reach the standard specified by the curriculum, but because they are the best in the class. This finding is interesting and it will be further explored in the questionnaire with the larger sample of teachers.

5.2.4.1.1. Issues raised for further investigation in the questionnaire study

Do teachers believe that each grade that they give has a different meaning and value in different classes in different schools?

If so, what factors give grades a different meaning and value in each class?

What do teachers believe is the impact on this practice of

the social background of the majority of pupils?

the geographical area where the school is situated?

the academic level of the majority of pupils?

5.2.4.2. Teachers' ideas on grading

Throughout the interviews participants had the chance to make general comments about grading. The final question asked them if they had further comments they wished to make. Although the question was open most teachers of the 9 who responded criticised the scale adopted in grading.

-Do you want to add anything related to the topic of grading that I didn't ask you?

- ◆ Yes. I believe that grades should be numerical. Now I have given two pupils A's because they say that A is 9 and 10. But there is a difference between those two A's. Also, teachers should be more informed about grading. But every now and again the programmes change, and then the children go to the secondary school and they do not know what to expect there.

(P 8)

-If you want to add something and we did not discuss you can do it now.

- ◆ I want to repeat this. If you can influence someone who makes decisions in grading the A not to be 9 and 10. That's it.

(P 3)

Five participants mentioned that differences among pupils should be clearly shown by the grading system. They also believed that the scale of grading should be numerical throughout primary schooling. One participant expressed an opposite view. She felt that grading in the primary school should be abolished:

- ◆ I personally am against grading at school. I am against the grading that takes place now. An eight nine or ten does not mean anything. The child cannot be just a number, because there are so many factors that affect grading so that a number cannot describe reality. I would not like grading at school. I would like children to be left free and do whatever they do because they want to do it and with the help of the teacher and of the family so that they will believe

that this will help them to have a better future and do whatever they want with it.

-Do you think that such a system would work?

- ◆ Yes, it would work if it happened with all the teachers. But because it does not happen with all it cannot work. It cannot work fragmentarily.

-Are you suggesting a different way of grading or abolition of grading as whole?

- ◆ Abolition of grading in the primary school and definitely abolition of grading in the first year group of the primary school. It is very hard for a child of the first year group, a 6 year old child to be told that you are getting an 8, you are getting a nine and you are getting a 10, and if a child gets a report with a 7 s/he cries for a week.

-Aren't the grades however a reward for the child that tries hard?

- ◆ No rewards can be given by the teachers at school at any moment. And you know that the children are very good judges, sometimes they are better judges than us. Sometimes we give a test to the children and we ask them what grade would you give to yourselves and what grade would you give to the other pupils of the class. Ninety nine per cent of them do not make mistakes.

(P 6)

Participant 6 presents the system of grading as cruel especially in the first year groups of the primary school. Her ideas are diametrically opposed to the ones expressed by others who claim that there is a need for a scale which can demonstrate differences in achievement among pupils. Although, indirectly, the ideas expressed by teachers about the scale used, may affect their grading. The ones who support the idea of greater accuracy in the scale may be more strict in their grading since they want to demonstrate small differences among pupils, while those who oppose numerical grading may be more lenient since they do not believe that grading should exist. This will be pursued further through the questionnaire study.

5.2.4.2.1. Ideas that need further investigation in the questionnaire study

What are teachers' ideas about the grading scale?

Do they think that grading should be abolished?

Do they think that the grading scale should be numerical in all year groups so that it will better represent differences in pupils' attainment?

5.2.5. Other teachers' grading

In the attempt extract as much information as possible from the interviews teachers were asked if they thought that other teachers assess in the same way that they do or differently. In this way participants were given the opportunity to criticise aspects of the grading process without implicating their own grading procedures. This was partially achieved. Partially, because a number of teachers did not want to make any comment on the way that other teachers undertook grading. Some believed that all teachers assessed in the same way, others criticised different ways of grading, i.e. teachers who think that they are lenient criticise the strict and vice versa. This did not add anything which was not already known. Some participants however did provide new insights.

Two of the 12 teachers who were consulted about about this issue refused to make any comments. Solidarity among colleagues was an ideal for them which was not abandoned under any circumstances:

-What about your colleagues.

◆ I don't know. I cannot tell you.

-Do you believe that your colleagues assess in a different way to you?

◆ I believe that every teacher assesses according to the way that he thinks

appropriate.

-Can you be more specific about the ways that other teachers make assessments?

◆ I cannot tell you.

(P 4)

Four participants criticised the way that other teachers assessed in comparison to themselves. Three of them criticised the strictness of some teachers while one criticised their leniency:

-How do you think that the other teachers assess their pupils?

◆ As I told you grading is very subjective. I am relatively strict in assessing and this has been proven to be good as far as my pupils are concerned. This makes them try harder and the parents have told me themselves that because you are strict children listen to you more they pay more attention to you and work harder. I am strict both in grading and in my behaviour into the classroom, I avoid making jokes and I keep a distance between me and my pupils. There are other teachers who try to minimise this distance. It is nice to be friends with your pupils but you need to achieve your aims as well. Some teachers can achieve their aims by being close friends with their pupils. And other teachers are more lenient with their grading.

(P 12)

Three participants appeared to believe that all their colleagues assessed in the same way as themselves. Only three teachers provided new information. Two said that there are teachers who take into account social relationships with the parents of the pupils when they grade. It was shown earlier that personal relationships with parents are perceived as crucial for the attainment of pupils. A small percentage of teachers mentioned that personal friendships with the family of the pupil may affect his/her grading. These two teachers also mentioned that the

social status of the family of the pupil affects some teachers' grading. One teacher suggested that racism is expressed through grading towards children from minority groups:

-Do you think that other teachers assess with the same criteria as you?

- ◆ It depends on personality of the teacher. We the teachers have our beliefs, temperament, and our education. Depending on our educational level and temperament we are affected in a positive or in a negative way by specific factors. I do not think it is a general phenomenon I believe that it is only a small number that are influenced.

-By what?

- ◆ They are affected by personal relationships with the family of the pupil, by the financial situation of the parents of the pupil....

-That is?

- ◆ That is that the child of the head of the local authority will get a better grade than another, or the child of their cousin. These things never affected me. I have taught to me to have such children but it did not affect me. But in general from what I see and hear in conversations among teachers unfortunately there are colleagues that are affected and this phenomenon is more common in secondary education.

(P 6)

-Do you think that the other teachers assess the way you do?

- ◆ No. It is something that we hear about but we haven't seen it, but I think that there are some teachers who are influenced by parents, by racism because there is racism in the classroom...

-Tell me more about this.

- ◆ The gypsy child will get a lower grade than the other children, or in the opposite way another child will get a better grade because he is the son of

the head of the local authority or of another teacher.

(P 16)

Another teacher suggested that there are teachers especially in villages who give higher grades to children so they are popular in the small community of the village:

- ◆ My conclusions on the criteria by which other teachers assess their pupils are for example some tell you that the behaviour of the child affects their grading, also that the acquaintance with the father affects grading, also the fact that the child brings you flowers in May, if you are affected by one of such factors you are affected by all.

.....
There are some teachers that say :‘I am not going to leave this village. If I give low grades to the children I will be in trouble with the parents. One teacher that told me yesterday ‘I am not coming to this village again’ because the village people treated her in a negative way, although she comes from that village.

(P 14)

Although some information was collected about the biased negative aspects of grading this was fragmentary and of limited validity since only a few participants commented. Perhaps interviews are not the best way to investigate such issues because of doubts about confidentiality. Questionnaires may be a better tool to investigate criticisms since the anonymity of the respondents is granted. The results of the next phase of the study therefore may be more elucidating.

5.2.6. Summary

The analysis of the interviews made it possible to outline the factors by which teachers perceive they are influenced when assigning grades. There are both pupil and non pupil

factors. The pupil factors consist of three major groups: academic attainment, factors that affect attainment and grading and factors that only affect grading. Assessment of academic attainment is determined by test results, classroom participation and homework preparation. The factors that affect both grading and attainment are family background, linguistic ability, intelligence and motivation while the factors that affect grading only are behaviour, personal likes, differential attainment in different subjects and pupils' awareness of attainment. The non pupil factors identified were school factors, for instance the geographical area where the school is situated, the social status of the family, the background of the majority of pupils and the overall academic ability of the class. Teachers ideas about the grading scale also may affect grading.

The main purpose of the interviews was to establish relevant and appropriate questions to enable the development of a questionnaire to be distributed to a larger number of teachers in Greek primary schools. The next chapter will describe how this was achieved.

CHAPTER 6

QUESTIONNAIRE METHODOLOGY

6.1. DEVisING OF THE QUESTIONNAIRE

6.1.1. Content of the Questionnaire

The analysis of the interviews provided the basis to devising both the structure and the content of the questionnaire. The structure followed that of the interview findings and is presented in the table below:

Table 6.1

Questionnaire structure
<p><u>A Demographic information</u></p> <ol style="list-style-type: none"> 1. Gender 2. Years of experience: a. total b. In urban, semi-rural, and rural areas 3. Present geographical area of work 4. Year group taught: a. now b. most years in the past 5. Education 6. INSET
<p><u>B. Criteria of assessment of pupils' attainment</u></p> <ol style="list-style-type: none"> 1. Tests 2. Classroom participation 3. Homework
<p><u>C. Factors affecting attainment</u></p> <ol style="list-style-type: none"> 1. Family 2. Linguistic ability 3. Intelligence 4. Motivation
<p><u>D. Factors affecting grading</u></p> <ol style="list-style-type: none"> 1. Family 2. Linguistic ability 3. Intelligence 4. Motivation 5. Behaviour 6. Personal likes 7. Differential attainment 8. Pupils' awareness 9. School factors
<p><u>E. Teachers' ideas about grading</u></p>

Participants were first asked to provide demographic data. Section B examined the factors by which teachers appeared from the interviews to be assessing academic attainment. Section C examined the factors which affect attainment while the fourth examined those which had been reported to affect grading. The interview section exploring ‘factors which affect attainment and grading’ was divided in two in the questionnaire, and the four factors ‘family’, ‘linguistic ability’ ‘intelligence’ and ‘motivation’ appear in both section C and D, so that in each questionnaire section only the relevant influence of each factor was examined. For the same reason, ‘school factors’, which were presented as a separate section in the interviews, are included in section D (‘factors affecting grading) since no distinction between pupil and non pupil factors was made in the questionnaire. In general, an effort was made to make the structure of the questionnaire as simple as possible, while reflecting the interview findings.

6.1.2. The format of the items

The interview findings provided the underpinnings for much of the content of the questionnaire. The aim of the questionnaire was to gather quantitative data on issues raised in the interviews. According to Moser & Kalton (1977) if a questionnaire is designed to elicit answers on specific aspects of the issue which is to be investigated, this is done by pre-coded questions. Thus, the format of the majority of the items of the questionnaire included a statement drawn from the interviews, followed by 1 to 5 scale on which participants could mark their agreement or disagreement. They were asked to mark 1 if they completely disagreed with the statement, 2 if they disagreed, 3 if they had a neutral position towards the statement (partly agreed, partly disagreed), 4 if they agreed and 5 if they strongly agreed. The use of such scales is very common in investigating opinions, attitudes etc (Cohen & Manion, 1994; Kerlinger, 1975; Moser & Kalton, 1977). They have the advantage of enabling easy coding and analysis of the participants’ responses although engender the possibility of forcing answers into a category to which they do not properly belong. This is called response bias and may occur because straining the participants’ endurance and patience results in less cooperation. However, many experts think that forced-choice instruments hold great promise for psychological and educational measurement although others are sceptical (Kerlinger, 1975;

Moser & Kalton, 1977). To attempt to establish whether teachers' answers were forced into the pre-specified categories, at the end of the questionnaire teachers were asked to comment on the questionnaire, its format, etc. There was also the opportunity for teachers not only to express their opinions about the issues raised in the interviews, but also to add things which were not mentioned. For instance, there might be teachers who did not feel that the only factors that affected their grading were the ones in section D, and who wanted to add others. Open ended questions at the end of each section gave them the chance to express other ideas not expressed in the closed questions.

6.1.3. The scale of the items

A different issue that is raised in the literature (Kerlinger, 1975) and affects the analysis which will follow is the type of the scale which is used. If the data are intended to be analysed statistically, the scale used should be interval, since this is a pre-requisite of parametricity. Although non-parametric tests are available for statistical analysis, parametric tests are more robust and allow deeper and more complicated statistical analysis and therefore more synthetic findings. Thus, in the questionnaire under each of the items the scale of agreement did not appear with the words 'strongly disagree', 'disagree' etc, but the numbers 1 to 5, in order to show that it is pre-supposed that the distance between, for example, 'strongly disagree' and 'disagree' is the same as between 'agree' and 'strongly agree', since the distance between 1 and 2 is the same between 3 and 4. The scores 1 to 5 were chosen in order for the responses to be congruent with the scoring system, that is the lowest score (1) expressed the lowest agreement and the highest score (5), the highest agreement. If greater equality between the numbers of the scale and the words that they represent was to be achieved, the scale should consist of the numbers from -2 to 2, where 'strongly disagree' would be represented by -2, 'disagree' by -1, neutrality (almost agree/almost disagree) by 0, 'agree' by 1, and 'strongly agree' by 2, as 'agree' is the opposite of 'disagree' and so on. This numbering was not used because the negatives may have confused participants. Moreover, according to Kerlinger (1975) the evidence indicates that weighted and unweighted scores give much the same results. It was planned to re-examine this issue after the pilot study. According to Moser &

Kalton (1977) if participants find difficulties in completing questionnaires, either because they do not understand the question, or because they do not understand the coding system, they tend to take up the neutral option, or according to Kerlinger (1975) not answer the question at all. Therefore if the pilot study showed that participants had difficulties in completing the questionnaire, the format of the items would be reconsidered.

6.1.4. The content of the items

The interviews provided the material for the content of the questionnaire. The teachers were asked to indicate their agreement or disagreement to those statements. At the end of each section, teachers were asked to add any other matters relating to the section. At the end of the questionnaire, teachers were asked to comment on the questionnaire overall, the format of the items, and add anything else that they felt necessary. The final questionnaire consisted of 97 questions plus 10 asking for the participants' demographic characteristics. An introductory letter at the beginning of the questionnaire introduced teachers to the issues being investigated, the purpose of the study, assured them of confidentiality, and expressed appreciation for their contribution to the study. When the questionnaire was complete a small number of teachers completed it as part of the pilot study.

6.1.5. The pilot study and its contribution to the final questionnaire

The questionnaire was piloted with 50 primary school teachers randomly selected in November 1996. An attempt was made to use schools in different geographical areas. 23 questionnaires were given to teachers in an urban area, 12 to those in a semi-rural area and 15 to teachers in rural areas. Some of the questionnaires were issued and collected by the researcher, some were issued by the researcher and collected by the head teacher of the school, and some were issued and collected by a teacher in a particular school. The total of collected questionnaires was 29 or 58%. Two (4%) were half completed (completed up to a certain point and blank from there on). 27 (54%) questionnaires were used in the pilot

analysis.

The first finding of the pilot study was the relatively high drop-out rate. Much higher drop-out rates have been mentioned in the literature, -Newman & Stallings (1982) report response rate of 16%. There is the possibility of a much lower percentage of returns of questionnaires, especially if sent returned by mail (Cohen & Manion, 1994; Kerlinger, 1975). The present questionnaire was not sent by mail, and reasons for the low returns were considered. One reason for the low returns may have been the indifference of some teachers. Another may have been the rumour at the time of the study that major changes (which in fact did take place a year later) were due to take place in the educational system in Greece. Teachers may have been suspicious of the purpose of the study, although they were assured of the anonymity and the confidentiality of their answers. The length of the questionnaire might also have dissuaded teachers from completing it. The analysis of the pilot questionnaires showed that no participants had answered the open-ended questions, therefore these were omitted in the questionnaire for the main study.

In general, the analysis of the returned pilot questionnaires showed that those teachers who completed it did not find any major difficulties in doing so. No negative comments were made in response to the final question and some very positive comments were made. Second, the teachers answered all the questions leaving none un-answered ones. Participants also appeared to understand the 1 to 5 disagreement - agreement scale used under each statement. Therefore, although changing it to a -2 to 2 had been considered, this seemed unnecessary. Analysis of the pilot questionnaire showed a wide distribution of answers and not a repetition of the middle position 3.

As no major changes were necessary, the 27 questionnaires from the pilot study were included in the main analysis. The shortened questionnaire, omitting the open questions (see appendix 1.2) was used for the main part of the study.

6.1.6. Validity and reliability

Different kinds of validity to which attention should be paid by the researcher have been suggested (Kerlinger, 1975; Moser & Kalton, 1977). An instrument has face and content validity if all the items contain a component of the attitude under study. Criterion-related validity can be claimed if test or scale scores are related with one or more external variable. Closely related are the notions of predictive and concurrent validity which are essentially the same except that the former relates to future performance on the criterion whereas the latter relates to performance at approximately the same time that the test or scale is administered. Predictive validity is thus concerned with how well a scale or a test can forecast a future criterion, and concurrent validity on how well it can describe a present one. Construct validity of a test or a scale can be claimed if the result is convincingly associated with pre-specified external variables. An intelligence test, for instance, can claim that it has construct validity if it measures pre-specified constructs, eg verbal ability and abstract reasoning, and not others like social class. Concurrent validity is claimed, if there is a high correlation between the scores produced by a test and other tests measuring the same thing.

As seen in this brief presentation of different types of validity, most refer to scales and tests. The questionnaire in the present study does not have the characteristics of, nor the intention to be a measuring scale. That is, the present investigation did not intend to relate its findings to an external variable, and therefore criterion related, predictive and concurrent validity are not considered. Construct validity is not relevant, because the present questionnaire does not measure particular constructs. Face validity is self-evident from the straightforward wording of the items. When a teacher is asked to mark his/her agreement with the statement, for instance, 'I will give grades lower than their attainment to pupils because they express disruptive behaviour', it is evident to participants what kind of information the researcher is looking for. Furthermore, the study did not intend to use participants' responses to this item to draw conclusions about topics irrelevant to what the items appear to investigate, for instance 'teachers' leadership'. Content validation takes place through judgment. Alone or with others, one judges the representativeness of the item (Kerlinger, 1975). In this case, the researcher and another psychological researcher judged the representativeness of the items.

The fact that the items were raised by the interviewees indirectly showed their judgement of the representativeness of the items. The semi-structured format of the interviews allowed interviewees to comment on the questions asked, raise issues and add anything that they felt important. In other words, the items of the questionnaire were not arbitrarily selected either from the literature or by the researcher, but by the participants themselves. In this sense, the interviews in addition to the findings that they provided, can be seen as a validation of the questionnaire. One purpose of interviews can be the validation of questionnaires, or other kinds of investigation e.g. observation (Kerlinger, 1975).

‘An instrument is reliable to the extent that repeated measurements made by it under constant conditions will give the same result’ (Moser & Kalton, 1977 p.353). In order for reliability to be tested, the instrument should be administered to the same participants after time has elapsed, to check whether the same results are produced. This method has certain difficulties; at the retest, respondents may remember their first answers and give consistent retest answers; the first questioning may make them think more about the survey subject; they may make less effort the second time to give accurate answers; or events occurring between the two tests may cause them to change their views on the subject. The nature of the present questionnaire would not allow other methods of testing reliability such as split half, since different sections of the questionnaire measure different things. Therefore, before the distribution of the final questionnaire, 10 participants who were known to the researcher and had not participated in the pilot study were asked to complete the questionnaire once, and to re-complete the same questionnaire two weeks after they had initially completed it. The alpha coefficients and the correlation coefficients (r) calculated for each of the 10 pairs of questionnaires are presented in the table 6.2. Cronbach’s alpha was chosen because it provides reliability analysis for instruments with both standardized (standard deviation of 1) and non-standardized items (SPSS Inc., 1995). In table 6.2 the non-standardized values are presented.

Table 6.2

Reliability coefficients		
Pair of questionnaires	alpha	Pearsons r
1	.9310	.8840

Reliability coefficients		
2	.8709	.7762
3	.8655	.8240
4	.9014	.8918
5	.9025	.8635
6	.8396	.7677
7	.8954	.8106
8	.8547	.7649
9	.9445	.8962
10	.8326	.7901
Mean	0.8838	0.8269
St. Dev.	.0374	.0528

As seen in table 6.2, high reliability coefficients were found between the first completion of the questionnaire and the second which took place two weeks later. This may mean that respondents remembered their answers from the first completion. However, it may also reflect consistency of ideas, and that the items used to investigate them are clear and precise. The high reliability of the questionnaire was interpreted positively.

6.2. DATA COLLECTION: PROCESS AND PROBLEMS

In order to obtain as a representative sample as possible, an effort was made to include in the sample participants with different characteristics from different geographical areas. The choice of the areas where the questionnaires were issued was roughly in accordance with the geographical distribution of the population of Greece. More than half (about 270) of the questionnaires were collected from teachers working in Athens, since almost half of the population of Greece lives in Athens. The areas of Athens where the questionnaires were issued were chosen not to have either solely working class or middle class population. The rest, about 200, were collected from small towns and villages from the rest of Greece; more specifically, about 70 from small towns around Athens, about 30 for the pilot study from

Edessa a small town in the north of Greece, 35 from the area around Thessaloniki, the second biggest town in Greece, 25 from the area of Agrinio, which is on the west coast, 20 from Litohoro, a village in the centre of mainland Greece, and 10 from Serres, a large northern country town.

The process of distributing the questionnaires varied. In Athens, for example, they were distributed to schools via the bureau of primary education to the heads of the schools, who were asked to give them to teachers, to collect them and return them to the bureau, from where they were returned to the researcher. In many cases, the researcher went to schools and asked the teachers to fill in the questionnaires. In one case, the researcher went to a seminar that primary teachers attended and asked them to fill in the questionnaires.

The final number of participants, as in the pilot study, represents about half of the questionnaires which were initially distributed. The percentage returned varied between schools. In some schools almost 100% were returned, in others not even one. The percentages of returned questionnaires cannot be attributed to certain characteristics of each school or geographical area, but rather to random factors. For example, in a small town with two primary schools, in one of them all teachers returned them and in the other none. In the seminar mentioned above, only about 20% of the distributed questionnaires were returned. In general however, the largest percentages of returned questionnaires per school were found in the schools where the bureau of primary education had undertaken the responsibility to distribute and collect them.

The loss of a large number of questionnaires can be attributed to a series of reasons. According to some teachers the time when most of the questionnaires were given out, (May and June, near the end of the school year), affected them in filling in the questionnaires since they had a lot more work than usual (preparing certificates, recording grades etc).

At the time that the study was taking place a discussion on whether assessment should change in secondary schools and teacher appraisal should be instituted in the Greek educational system was also taking place in the press, in the teachers' unions etc after of publication of

such intentions by the government. It is possible that a questionnaire on the issue of assessment at that time was somehow connected to this situation, although it was clearly stated in the letter accompanying each questionnaire that the results would be used only for analysis within a doctoral study and not for any other purposes. (See appendix 1.2)

The fact that high percentages of returned questionnaires were observed when they were distributed by the bureau of primary education may lead to the conclusion that the higher the status of the person asking teachers to fill in a questionnaire the more likely they were to do so. Although the questionnaires were exactly the same as the ones distributed by the researcher, and although they were very well aware from the introductory letter that the study was taking place for a doctoral study, it seems that the fact that they were asked to fill them in by an authority of high status 'obliged' them to return them completed.

Another observation during data collection was that the more time that the researcher spent in a school with the teachers, the more completed questionnaires were returned. The positive relationships which developed between the researcher and the participants proved to operate as a motive in filling in the questionnaires. However, some heads did not allow the researcher to spend time with the teachers, and in other cases this was not possible due to restrictions of time.

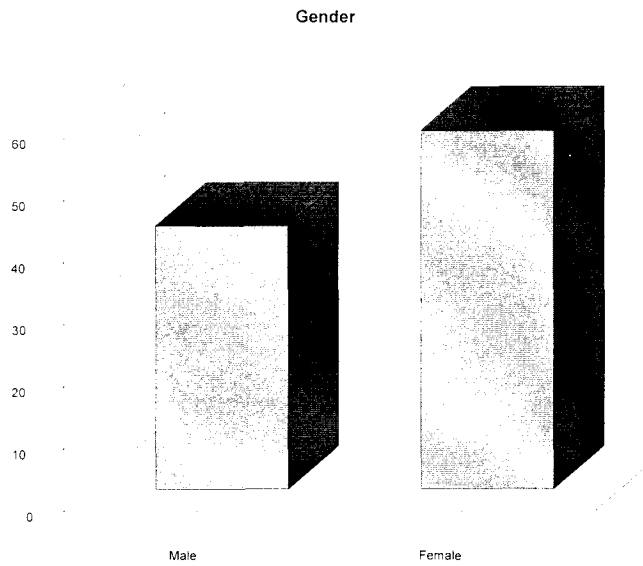
The characteristics of the final sample are described below:

6.3. SAMPLE

6.3.1. Gender

The sample consisted of 472 primary school teachers, all working in primary schools at the time that the study took place (see figure 6.1). A relatively higher percentage of them were female (57.6 %) compared with 42.4 % who were male. This distribution, in fact, roughly represents the actual distribution of primary school teachers, whose majority is female.

Figure 6.1



6.3.2. Experience

As the bar chart below (figure 6.2) shows, the experience of the teachers in the sample varied from 1 to 34 years. The distribution of the years of experience of the participants shows that the highest percentages are in the middle and decrease at the extremes. The sample consists of relatively more young than old teachers which reflects the distribution in Greece as a whole, where older teachers tend to take early retirement.

Figure 6.2

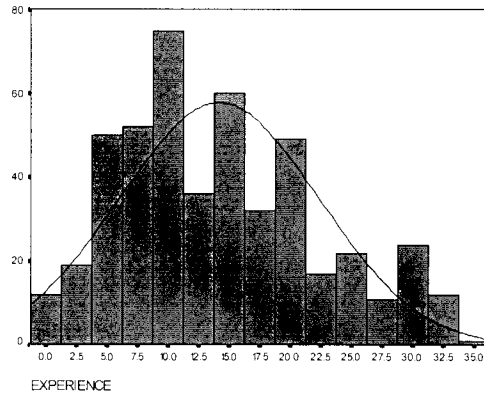
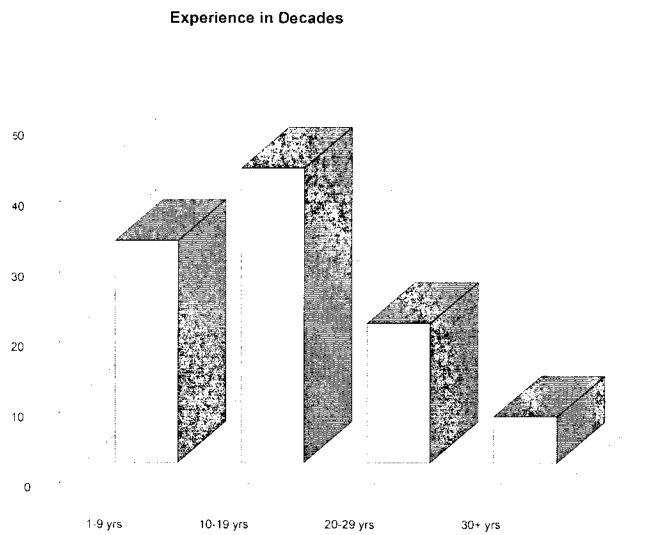


Figure 6.3



For practical reasons related to the statistical analysis the experience of the participants was

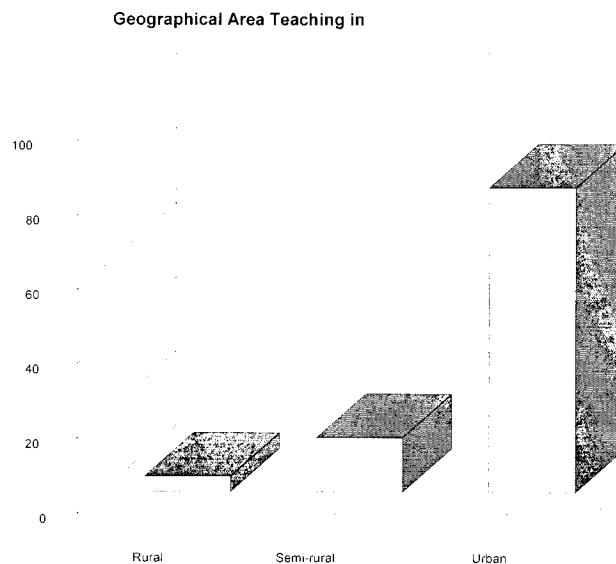
recorded in decades. 31.6% had 1 to 9 years of experience, 41.9% 10 to 19 years, 19.9% 20 to 29 and 6.6% over 30 years of experience (see figure 6.3).

As far as gender and experience of the participants of the sample are concerned, they represent the distribution of Greek primary school teachers.

6.3.3. Area teaching in at the time of the study

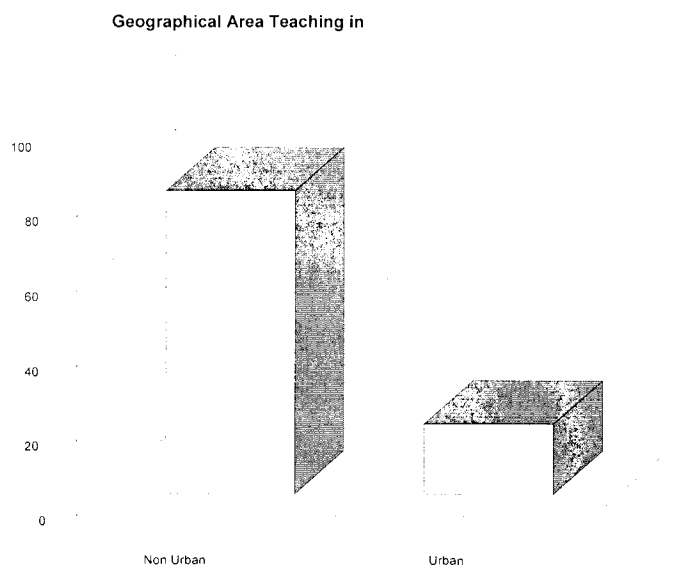
Data were collected from a variety of geographical areas. The exact place where each of the participants worked at the time of the study was not asked in the questionnaires to protect anonymity. A teacher serving in a village with only one teacher could be very easily identified from this information. Teachers were asked, therefore, whether the area they were working in at the time of the study was rural, semi-rural or urban. Figure 6.4 shows the distribution of the participants with regard to this variable.

Figure 6.4



The vast majority (81.1%) of the participants of the sample worked in urban areas, a much smaller percentage (14.6%) in semi-rural and only a small percentage (4.2%) in rural areas. Unfortunately there is no available evidence on the distribution of primary teachers in Greece with regard to geographical areas. The distribution of the population of Greece, however, is not very different from the distribution of the sample. Almost half the population lives in Athens. Furthermore, if we take into account that every settlement with a population of more than 5000 is considered an 'urban area', then the high percentage of teachers and people living in urban areas is easily understandable. An area is characterised as semi-rural if its population is between 2000 and 5000, and rural if its population is less than 2000.

Figure 6.5



Due to the small percentage of participants working in rural and semi-rural areas and the common characteristics of these areas, the 'rural' and 'semi-rural' categories were combined under one category named 'non-urban'. Figure 6.5 presents the new categorisation of the areas that teachers worked in at the time of the study. The combined percentage of teachers working in rural and semi-rural areas was 18.9%, while that of teachers of urban areas

remained at 81.1%.

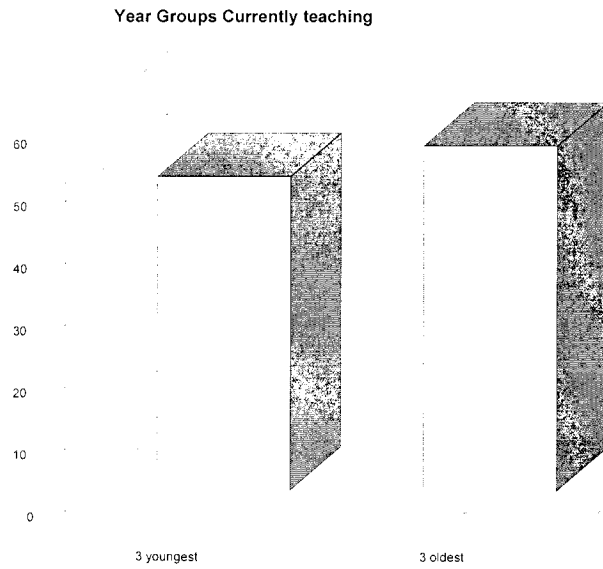
The fact that participants worked in particular areas at the time of the study does not mean that they did not have teaching experience in other areas. Teachers were asked whether and for how many years they had worked in different geographical areas. Their answers show that moving and changing schools is very common in Greek primary education. 61.2% of the teachers in the sample had at least some experience in rural areas, 39.4% in semi-rural areas and 87.1% in urban areas. Although only about 4% of the participants worked in rural areas at the time of the study, more than 60% of them had some experience of working in rural areas. This happens because it is much easier to get a teaching job in a remote rural area than in an urban area. A large percentage of teachers had worked in rural areas until they were transferred to bigger towns.

The geographical distribution of the participants of the sample represents at least to some degree the distribution of the population of Greece. Although the percentage of teachers working in rural areas at the time of the study is low in the sample, the views of teachers in rural areas are not under-represented. This is because a large percentage of the participants had worked in rural areas in the past.

6.3.4. Year group currently teaching and chiefly taught in the past

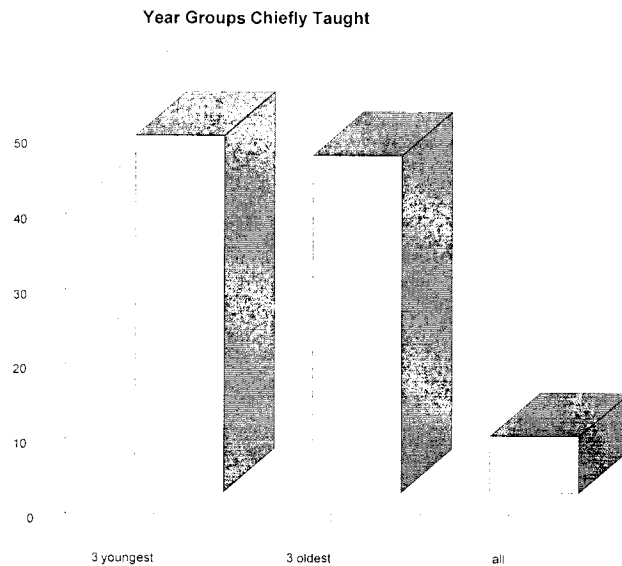
The Greek primary school consists of six year groups. The first three year groups are unofficially called the 'lower' year groups and the last three the 'higher'. There are differences in the assessment of the lower and higher year groups. Teachers were asked which year group they taught. The distribution of the participants reflected the distribution of the total population of Greek primary teachers in that 48.5% of the participants worked in the first three year groups and 51.5% in the last three year groups at the time of the study (see figure 6.6).

Figure 6.6



47.5% stated that they had worked longer with the first three year groups, 44.9% with the last three and 7.6% with all year groups. The sample is balanced, not only as far as the year group currently taught was concerned, but also for the year groups taught chiefly in the past (see figure 6.7).

Figure 6.7



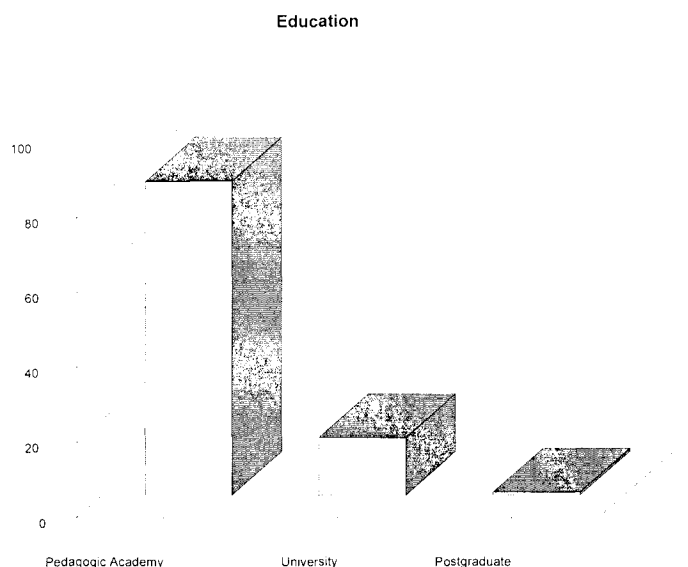
A further analysis of these data investigated whether a common practice in primary schools, namely the tendency of female teachers to be placed with the lower year groups and males with the higher, existed in the sample. An ANOVA showed that there was a significant difference ($F= 86.8, p=.000$) in the year groups that the participants taught at the time of the study with regard to gender and the year groups that participants had taught during their past experience ($F= 123.6, p=.000$). Significantly more women than men in the sample taught the lower year groups at the time of the study and taught the lower year groups than men throughout their careers.

Overall, the sample was balanced for the year groups that the participants taught at the time of the study and had taught in the past. Women tended to teach the lower year groups, while men tended to teach the higher year groups.

6.3.5. Education

The education of the sample also reflected the educational status of teachers generally serving in Greek primary education. Greek primary teachers have been trained in two kinds of institutions. Until 1988, the main institutions providing teacher training were the pedagogic academies, which awarded teacher training certificates after two years of study. In 1984 the first pedagogic department of the University of Athens started training teachers who would be awarded a teachers' degree after 4 years of studies. Gradually all pedagogic academies were replaced by the pedagogic departments of Universities. However, due to the long list of teachers waiting to get work in schools, only a small minority of pedagogic department graduates was working in schools at the time of the study. In the sample some teachers had undertaken postgraduate studies and some held additional degrees in subjects other than primary teaching. Figure 6.8 shows that all these categories are represented in the sample.

Figure 6.8



The great majority (83.9%) of the teachers of the present sample were pedagogic academy graduates. 15.3% held a university degree. In this category, both the pedagogic department graduates and the teachers who held a degree in addition to the teachers' training degree or certificate are represented in the 'university' category. A very small minority, only 0.8% held a postgraduate degree. This was because postgraduate studies in the Greek universities at the time of the study were in an embryonic state, and only recently came into being. Postgraduate studies had mainly taken place outside.

6.3.6. INSET

Participants were asked to state whether they had undergone in-service training of any kind during their work. In-service training in Greece has changed during recent years. In the 70's and 80's INSET involved a comprehensive course which lasted for one year, and teachers who were attending such a course were excused from work. This system however was criticised because it was expensive, it took place in a few large towns and many teachers who wanted to attend had to move for a year. Thus, not many teachers had the chance to attend.

It was replaced in the early 90's by single subject seminars which took place for 6 months in the afternoons after school.

Figure 6.9

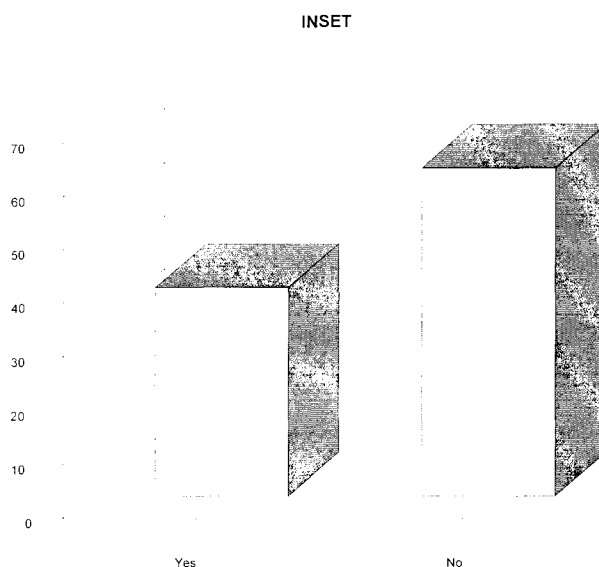


Figure 6.9 shows that a relatively large percentage of the teachers in the present sample (38.8%) had attended some kind of INSET. The highest percentage however (62.2%) had not attended any INSET course. A chi-squared showed that the more experienced the teachers the more likely they were to have taken INSET courses (Pearson value=14.9 $p=0.001$). It seems that an informal waiting list exists among teachers, where the younger and less experienced wait for the older and more experienced to attend INSET courses before they do. Female teachers were also less likely to attend INSET courses than male (Pearson value= 20.1, $p=0.000$). 69.9% of female teachers had not attended any INSET courses, while the percentage for male teachers was much smaller (49.5%). Perhaps Greek teachers' families are traditionally patriarchal; the males develop their careers, while the females place less weight on them, perhaps because as mothers and wives they do not have the time.

6.4. SUMMARY

The questionnaire was based on the interview findings both in its structure and content. It was piloted on 27 teachers, and its reliability was tested on another 10. After its distribution, 472 analysable questionnaires were collected. Although evidence is not available about many of the characteristics of the population of Greek teachers, it is believed that this sample in general reflects that population. The analysis and the findings of the questionnaires are presented in the following chapter.

CHAPTER 7.1

QUESTIONNAIRE ANALYSIS AND RESULTS: DESCRIPTIVE ANALYSIS.

The questionnaire consisted of four sections. The first section (section A) related to the demographic characteristics of the sample, the second section (B) the academic factors that affected teachers' grading, the third (section C) the factors that affected the academic attainment of pupils and finally section D included the non-academic factors that directly affected teachers' grading. In the analysis that follows, each of the sections will be analysed separately and comparisons among items and sections will be made where appropriate. The analysis will proceed from descriptive to inferential statistics. Differences in responses among teachers with different demographic characteristics will be investigated. Finally an overall analysis of the findings from the questionnaires will be attempted.

7.1.1. Section B: Academic factors affecting grading

The first section of the questionnaire investigated the academic factors that affect grading. The items investigated the relative weight which teachers placed on tests, classroom participation and homework.

7.1.1.1. Testing

The statements about tests and the teachers' responses to them are presented in table 7.1. The first column presents the statement on which they marked their level of agreement, the next column shows the number of teachers who responded to the statements and the next 5 the percentages of teachers who gave each response.

Table 7.1.1

B. 1. The effect of tests on final grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree 1	Disagree 2	almost agree/ almost disagree 3	agree 4	Strongly agree 5
B.1.1. When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests.	472	13.1	54.0	25.8	5.3	1.7
B.1.1.a. I do not take them into account because they only represent the ability of the pupil to memorise.	302*	4.3	22.5	42.7	27.8	2.6
B.1.1.b. I do not take them into account because pupils may know the answers in advance.	302*	5.0	10.9	23.2	48.0	12.9
B.1.2. When I assign grades the main source of information is the tests I devise myself.	472	5.3	21.2	35.2	32.4	5.9
B.1.3. Tests, formal and informal, only contribute to the overall picture of the pupil.	472	1.5	2.5	8.9	55.7	31.4

*Responded only by participants who marked 1 or 2 in the initial statement

The vast majority of the participants do not appear to take into account formal ministry tests. 67.2% marked 1 or 2, expressing their absolute disagreement (13.1%) or their disagreement (54%) with statement B.1.1. Almost one fourth of the participants (25.8%) marked 3 which did not express clear agreement or disagreement. Only 7% appeared to take into account formal ministry tests when grading at the end of the term or school year. The next two statements attempted to investigate two reasons presented in the interviews for not taking formal ministry tests into account. Teachers' responses to statement B.1.1.a showed that the larger percentage (almost half 42.7%) took the middle position. This is the hardest to interpret because it seems that they agree with the statement under some circumstances and not under others. 26.8% agreed with the statement that one of the reasons that they do not take formal ministry tests into account is the fact that they represent the rote learning of the pupil. A similar percentage (30.4%) agreed with the statement. The other reason presented in the interviews for not taking into account formal ministry tests is the possibility that pupils may know the answers in advance. The distribution of the responses to this statement is rather different from the previous one. 15.9% disagreed or strongly disagreed with the statement, 23.2% took the middle position, and 60.9% agreed or strongly agreed that this is the main

reason for not taking into account formal ministry tests.

Table 7.1.2

repeated measures t-tests between the mean levels of agreement with statements B.1.1.a and B.1.1.b					
STATEMENTS	N	Mean	Std Dev.	t value	p
B.1.1.a. I do not take them into account because they only represent the ability of the pupil to memorise.	302*	3.0199	.885	-9.10	.000
B.1.1.b. I do not take them into account because pupils may know the answers in advance	302*	3.5298	1.014		

A repeated measures t-test showed that the difference between the mean scores for the responses to these two statements was highly significant (see table 7.1.2). It seems therefore that pupils' potential knowledge of the test questions in advance is a significantly more important reason for not taking formal ministry tests into account for grade assignment than the supposition that formal tests merely represent the ability of pupils to memorise information. A higher score represents higher level of agreement

Teachers do not seem to be as negative about tests which they devise themselves. As can be seen in table 7.1.1 agreement is higher than disagreement on the statement concerned with such tests. 26.5% disagreed or strongly disagreed with the statement, while 38.3% agreed or strongly agreed. The relatively highest percentage of participants took the middle position (35.2%) (see table 7.1.1).

Table 7.1.3

repeated measures t-tests between the mean levels of agreement with statements B.1.1 and B.1.2					
STATEMENTS	N	Mean	Std Dev.	t value	p
B.1.1. When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests.	472	2.2839	.822	-15.49	.000
B.1.2 When I assign grades the main source of information is the tests I devise myself	472	3.1250	.986		

It is obvious that the responses to this statement are different from the statement regarding formal ministry tests. As shown in the table 7.1.3, a repeated measures t-test showed that these differences are statistically significant. Greek primary teachers therefore tend to take more account of tests that they have devised themselves, compared with the ones devised by the ministry.

The vast majority of participants agreed with the statement that tests, both formal and informal, only contribute to the overall picture of the pupil. The opinion expressed in the interview study that teachers grade having in mind an overall picture of the pupil was almost unanimously accepted. A very small minority 4% disagreed with this statement, and 8.9% took the middle position (12.9% altogether) (see table 7.1.1). It seems therefore that tests, both formal and informal, although differently weighted, are not the main factor that affect grading, however they contribute to the overall academic picture of the pupil according to which Greek teachers grade.

7.1.1.2. Classroom Participation

The second academic factor that emerged from the interviews to be affecting grading was classroom participation. Three statements investigated participants' responses to issues raised in the interviews. The results are presented in table 7.1.4:

Table 7.1.4

B.2. The effect of classroom participation on final grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5

B.2. The effect of classroom participation on final grading.						
B.2.1. Classroom participation is one of the most important criteria that I take into account for final grading.	472	1.1	6.6	19.3	56.8	16.3
B.2.2. I do not take it into account because it is biased against shy and withdrawn pupils.	472	5.5	48.1	35.8	10.0	.6
B.2.3. Classroom participation only contributes to the overall picture of the pupil.	472	1.3	10.0	16.1	58.5	14.2

It is obvious from the levels of agreement with the first of the above statements that the great majority of teachers appear to regard classroom participation as one of the main criteria for grading. Only 7.6 % disagreed with the statement. 19.3% took the middle position, while 73.1% agreed or strongly agreed with the statement.

Table 7.1.5

repeated measures t-tests between mean levels of agreement with statements B.2.1 and B.1.1, and statements B.2.3 and B.1.2.					
STATEMENTS	N	Mean	Std Dev.	t value	p
B.2.1. Classroom participation is one of the most important criteria that I take into account for final grading	472	3.8072	.824	-29.18	.000
B.1.1. When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests.	472	2.2839	.822		
B.2.3. Classroom participation is one of the most important criteria that I take into account for final grading	472	3.807	0.824	-12.1	.000
B.1.2. When I assign grades the main source of information are the tests I devise myself	472	3.1250	.986		

Comparison between the mean levels of agreement with this statement and those concerned with tests both formal and informal shows that there are significant differences. Classroom participation of pupils therefore is a significantly more important criterion than tests, both formal and informal.

The second statement in this section examined participants' levels of agreement with the

opinion expressed in the interviews that classroom participation is not taken into account because it is biased against shy and withdrawn children, who tend not to express themselves and therefore participate less in classroom processes. Participants' level of agreement however shows that the large majority of participants disagreed or strongly disagreed with this statement (53.6%), a fact which strengthens the previous finding that participation is one of the most important criteria that teachers take into account for the final grading of the pupil. Moreover, the levels of agreement with the two statements have a low but significant negative correlation ($r=-.33$ $p=.000$). This means that the more teachers tend to agree with the first statement the more they tend to disagree with the second. Overall agreement with the present statement (agree and strongly agree) was restricted to 10.6%. A relatively large percentage 35.8% took the middle position, indirectly expressing concern that there is a degree of truth in this statement.

The last statement in this section examined whether participation contributes to grading as part of giving an overall picture of the pupil. It has already been shown that participation not only contributes to the overall picture of the pupil, but also that it is one of the most important criteria for grading. A high percentage of teachers who participated in this study (72.2%) agreed with this statement. 16.1% took the middle position, and 11.2% did not agree.

Table 7.1.6

repeated measures t-tests between mean levels of agreement with statements B.2.1 and B.2.3, and statements B.2.3 and B.1.3					
STATEMENTS	N	Mean	Std Dev.	t value	p
B.2.1. Classroom participation is one of the most important criteria that I take into account for final grading	472	3.8072	.824	1.17	.243
B.2.3. Classroom participation only contributes to the overall picture of the pupil.	472	3.7436	.867		
B.2.3. Classroom participation only contributes to the overall picture of the pupil.	472	3.744	0.867	7.81	.000
B.1.3. Tests, formal and informal only contribute to the overall picture of the pupil	472	4.1292	.789		

As shown in table 7.1.6, the mean level of agreement with statement B.2.3 is lower than the

mean level of agreement with statement B.2.1, although not significantly . Also, agreement to the parallel statement in the previous section about tests (B.1.3) is significantly higher than agreement with statement B.2.3. Both of these findings show that classroom participation is not only one of the criteria that contributes to the overall picture of the pupil (like tests), but is one of the most important criteria that teachers take into account when they assign grades.

7.1.1.3. Homework

The third and last sub-section of statements in this section investigated homework preparation and its effects on grading. The statements that investigated it and participants responses are presented in table 7.1.7:

Table 7.1.7

B.3. The effect of homework preparation on final grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5
B.3.1. Homework should not be given. All of the work should take place at school.	472	18.9	42.8	22.5	12.3	3.6
B.3.2. When I assign grades I take into account diligence as it appears through homework preparation.	472	8.3	32.6	30.9	24.4	3.8
B.3.3. Homework preparation only contributes to the overall picture of the pupil.	472	1.3	4.9	17.6	61.7	14.6

The levels of agreement with the first statement of this sub-section show that the majority (61.7%) disagreed or strongly disagreed with it. Greek teachers believe that homework should be given. 22.5% took the middle position and 15.9% agreed. Although more teachers tend to agree than disagree that homework should be given, it is evident that there is no unanimous position on this issue. Opinions on the necessity of homework may affect the degree that it is taken into account for grading.

40.1% of the participants disagreed or strongly disagreed with the statement that when they assign grades they take into account diligence as it appears through homework preparation, while 28.2% agreed or strongly agreed. A large percentage, 30.9%, took the middle position.

Table 7.1.8

repeated measures t-tests between mean levels of agreement with statements B.3.1 and B.3.2					
STATEMENTS	N	Mean	Std Dev.	t value	p
B.3.1. Homework should not be given. All of the work should take place at school.	472	2.3898	1.039	-5.78	.000
B.3.2. When I assign grades I take into account diligence as it appears through homework preparation.	472	2.8284	1.013		

As shown in table 7.1.8, a significant difference was found between items B.3.1 and B.3.2. ($t = -5.78$, $p = 0.000$). Although teachers believe that homework should be given, they do not seem to believe that they take it into account in their grading (high disagreement with a negative statement means high agreement with the opposite).

Table 7.1.9

repeated measures t-tests between mean levels of agreement with statements B.3.2 and B.2.1, statements B.3.2 and B.1.2, and statements B.3.2 and B.1.1.					
STATEMENTS	N	Mean	Std Dev.	t value	p
B.3.2. When I assign grades I take into account diligence as it appears through homework preparation.	472	2.8284	1.013	16.51	.000
B.2.1. Classroom participation is one of the most important criteria that I take into account for final grading	472	3.8072	.824		
B.3.2. When I assign grades I take into account diligence as it appears through homework preparation.	472	2.828	1.013	4.62	0
B.1.2. When I assign grades the main source of information is the tests I devise myself	472	3.1250	.986		

B.3.2. When I assign grades I take into account diligence as it appears through homework preparation.	472	2.828	1.013	-9.28	0
B.1.1. When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests	472	2.283 9	.822		

Comparisons of the mean levels of agreement with this statement (B.2.2) and statements in the previous two groups (classroom participation, formal tests and teacher made tests) show significantly higher mean level of agreement for participation than for homework ($t= 16.51$, $p= 0.00$), and also significantly higher agreement for teacher-made tests than for homework ($t= 4.62$ $p=0.00$) On the other hand the mean level of agreement for the present statement is significantly higher than that for formal ministry tests ($t= -9.28$, $p=0.00$). It seems that classroom participation is the most important academic criterion for grading, followed by teacher-made tests, homework, and finally formal ministry tests (see table 7.1.9).

The levels of agreement with the last statement (homework as a contributor to the overall picture of the pupil) show that more than two thirds of the teachers (76.3%) agreed with the statement 17.6% took the middle position and only 6.1% disagreed of whom only 1.3% strongly disagreed.

7.1.2. Section C: Factors affecting academic attainment

Section C of the questionnaire examined the factors that are perceived to affect the academic attainment of pupils and also indirectly affect grading. These factors are: family background, linguistic ability, intelligence and motivation. The interviews showed that the same factors also affect grading directly. This will be examined separately together with the other factors that affect grading directly.

7.1.2.1. Family background

Family background was described in the interviews as the most important factor which

affected all the previously described academic criteria for grading. Ideas which were expressed in the interviews, and participants, level of agreement with them, are presented in the table 7.1.10:

Table 7.1.10

C.1 The effect of family background on attainment.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5
C.1.1. The material environment (good or bad living conditions) affects pupils' attainment.	472	0	2.3	6.1	51.9	39.6
C.1.2. The psychological environment in which a pupil lives affects his/her attainment.	472	.4	.2	.4	44.7	54.2
C.1.2.a. Factors that affect the psychological condition of the pupil: Divorce.	467	.4	1.5	6.2	50.7	41.2
C.1.2.b. Family discord.	467*	.2	1.5	2.1	51.0	45.2
C.1.2.c. Death of a parent.	467*	.2	1.5	4.5	41.3	52.5
C.1.2.d. Relationships with friends.	467*	.2	4.5	21.0	57.4	16.9
C.1.3. Cooperation between parents and teachers results in pupils' higher attainment.	472	.2	2.3	17.8	51.7	28.0
C.1.3.a. This happens because: Parents who are interested in their children' progress help them more.	376*	.3	.3	5.3	61.4	32.7
C.1.3.b. Pupils who are aware of cooperation between their parents and teachers tend to work harder.	376*	.8	2.9	19.4	59.3	17.6
C.1.4. The higher the educational level of the family the higher the attainment of their children.	472	.4	3.8	23.7	57.6	14.4
C.1.4.a. This happens because: Uneducated parents have a negative predisposition towards school.	340*	18.8	52.1	22.6	5.3	1.2
C.1.4.b. Uneducated parents do not provide enough educational material for their children.	340*	9.1	52.4	24.7	12.4	1.5

C.1 The effect of family background on attainment.						
C.1.4.c. Educated parents transmit more knowledge and therefore their children attain more.	340*	.6	1.8	12.6	71.8	13.2
C.1.5. The higher the financial level of the family the higher their children' attainment.	472	4.4	37.3	42.4	15.0	.8
C.1.6. School as an institution may compensate for the potentially negative effects of a disadvantaged family background.	472	1.1	11.9	44.9	38.8	3.4
C.1.7. It is part of teachers' work to give additional help to children who come from disadvantaged family backgrounds.	472	.8	2.5	11.4	55.1	30.1

*Responded only by participants who marked 3 and 4 in the initial statement.

As table 7.1.10 shows, there is a considerable agreement on the first statement. Only 2.3% disagreed, no one strongly disagreed and 6.1% took the middle position. Agreement among participants was even greater on the second statement. Only 1.1% marked (3) and below. Greek teachers appear to almost unanimously believe that both the material and the psychological environment at home are extremely important for pupils' attainment.

Table 7.1.11

Wilcoxon Matched-Pairs Signed-Ranks Test between statements C.1.1 and C.1.2.				
STATEMENTS	N	mean	z	p
C.1.1 The material environment (good or bad living conditions) affects pupils' attainment.	472	4.2881	-7.5490	.000
C.1.2. The psychological environment in which a pupil lives affects his/her attainment.	472	4.5212		

A comparison of the levels of agreement with the two statements presented in table 7.1.11 shows that there is a significant difference between them. A non-parametric test for the comparison was used (Wilcoxon Matched-Pairs Signed-Ranks Test) because the skewed distribution of responses does not allow the use of a parametric test. (The mean, although not used in the test, is presented in the table in order to show the extent to which participants tend to agree with each statement). It can be seen therefore that Greek primary school teachers appear to agree significantly more with the statement that the psychological environment of the child affects its attainment than the statement saying that the material environment does

so.

Table 7.1.12

Means of levels of agreement on factors affecting pupils' psychological condition			
Factors	N	Mean	S.D.
Death of a parent	467	4.44	.67
Family discord	467	4.39	.63
Divorce	467	4.31	.69
Relationships with friends	467	3.86	.75

Very high agreement was also expressed for each of the factors presented as affecting the psychological condition of the child. In the table of means of levels of agreement with each one of the statements (table 7.1.12) it can be seen that the most important factor perceived to affect the psychological situation of the child and therefore its attainment is the death of a parent followed by family discord, family divorce, and finally relationships with peers, which do not seem to be considered an important factor in the psychological wellbeing of the child. Comparisons showed that all appear to significantly differ from each other with the exception of discord and death, where no significant difference was found (See appendix, table 2.1).

The next statement investigated teachers' beliefs about the effect on pupils' attainment of cooperation between family and teachers. As seen in table 7.1.13, participants tend to agree. Only 2.5% disagreed by marking below (3), 17.8% took the middle position, whereas a high percentage agreed (51.7%) or strongly agreed (28%).

The next two items investigated why teachers believe that cooperation between parents and teachers affects pupils' attainment. Participants almost unanimously agreed with the first statement, mentioning that cooperation between teachers and parents affects pupils attainment because parents who are interested tend to help their children more. 94.1% of them agreed with the statements. There was a strong agreement with the second item, stating that pupils who are aware of the cooperation between parents and teachers tend to work harder. Only 3.7% expressed disagreement by marking below (3), 19.4% took the middle position. The rest (76.9%) agreed or strongly agreed.

Table 7.1.13

Wilcoxon Matched-Pairs Signed-Ranks Test between statements C.1.3.a and C.1.3.b.				
STATEMENTS	N	mean	z	p
C.1.3.a. Parents who are interested in their children' progress help them more.	376	4.2606	-9.568	.0000
C.1.3.b. Pupils who are aware of cooperation between their parents and teachers tend to work harder	376	3.8989		

A comparison of these statements showed that there was a significant difference between them (see table 7.1.13). Teachers appear to believe significantly more that cooperation between parents and teachers results in pupils' higher attainment because those parents who are interested in their children' progress help them more, rather than because children who know of the cooperation between parents and teachers tend to work harder.

The statement that the higher the educational level of their family, the higher the attainment of pupils generated a low level of disagreement (4.2%) compared with the large 72% of agreement or strong agreement. 23.7% (almost one in four) took the middle position. Many teachers express doubts about the strong link between family educational level and pupil attainment.

Teachers who expressed agreement were asked about their reasons. The first statement said that uneducated parents have a negative predisposition toward school. The majority of participants strongly disagreed (18.8%) or disagreed (52.1%) altogether 70.9%. Small percentages of agreement or strong agreement were recorded (5.3% and 1.2% respectively), although 22.6% took the middle position. Some teachers, although they do not accept that uneducated parents have a negative predisposition towards school, do not reject this view confidently.

One interviewee had claimed that educational level of the family was connected to pupils' attainment because uneducated parent do not provide any educational material for their children (books, games etc). Participants in the questionnaire study disagreed with this.

61.5% expressed disagreement compared with 13.9% that expressed agreement. One in four (24.7%) took the middle position.

The next statement presented in the interviews as a reason for the link between educational level of the family and pupil attainment was that educated parents transmit more knowledge to their children and therefore they attain more. The level of agreement with this statement in comparison with the previous two ones is different. The vast majority of participants expressed agreement (75%) and only a small percentage disagreed (2.4%). Also the percentage of participants who took the middle position fell to 18% contrasting with almost 25% for the two previous statements.

Table 7.1.14

repeated measures t-tests between mean levels of agreement with statements C.14.a and C.1.4.b, statements C.1.4.a and C.1.4.c, and statements C.1.4.b and C.1.4.c.					
STATEMENTS	N	Mean	Std Dev.	t value	p
C.1.4.a. Uneducated parents have a negative predisposition towards school.	340	2.1794	.838	-5.28	.000
C.1.4.b. Uneducated parents do not provide enough educational material for their children.	340	2.4471	.876		
C.1.4.a. Uneducated parents have a negative predisposition towards school.	340	2.179	0.838	-34.2	.000
C.1.4.c. Educated parents transmit more knowledge and therefore their children attain more.	340	3.9529	.617		
C.1.4.b. Uneducated parents do not provide enough educational material for their children.	340	2.447	0.876	-28.3	.000
C.1.4.c. Educated parents transmit more knowledge and therefore their children attain more.	340	3.9529	.617		

Comparisons between the mean levels of agreement with these three last statements are presented in the table 7.1.14 (repeated measures t-tests were used here because of the distribution of responses). Teachers believe that the most important reason for the link between the educational level of the family and pupils' attainment is that educated parents

transmit more knowledge to their children. Second is the view that children who come from uneducated families have lower attainment because their parents do not provide sufficient educational materials. Last is the statement that uneducated parents have a negative predisposition towards school. These are each significantly different.

The next statement investigated the relationship between the financial status of the family and pupils' attainment. The distribution of agreement with this statement shows higher disagreement than agreement. (41.7% compared with 23%) A very large percentage, however, took the middle position (42.4%).

Table 7.1.15

repeated measures t-tests between mean levels of agreement with statements C.1.5 and C.1.6.					
STATEMENTS	N	Mean	Std Dev.	t value	p
C.1.5. The higher the educational level of the family, the higher the attainment of their children.	472	3.8178	.735	24.86	.000
C.1.6. The higher the financial level of the family' the higher their children' attainment.	472	2.7055	.806		

A comparison of the mean level of agreement between the statements concerning the effects of the educational and the financial status of the family on pupil attainment showed that participants believed that the educational level of the family is significantly more important than the financial (see table 7.1.15). Greek primary teachers tend to believe that pupils who come from rich families are not as likely to reach high levels of attainment as pupils who come from educated families.

The last two items in this sub-section of statements are not concerned with family background factors affecting attainment but with the role of the school and teachers in assisting children who come from disadvantaged backgrounds. The first of these items investigated teachers' opinions on whether school as an institution (and not teachers as individuals) might compensate for the negative effects of a disadvantaged family background. Their responses demonstrated that teachers seem to have an optimistic rather than pessimistic view of the

compensatory effects of school. 42.2% agreed with the statement and 12.9% disagreed. The largest percentage however (44.9%) expressed doubts about both positions, marking the middle position.

When asked about their role in helping pupils, the distribution of responses showed that teachers believed that they have undertaken an important social role. A very high percentage (85.2%) believed that it is an important part of their work to help children from disadvantaged family backgrounds. Only 11% took the middle position and 3.4% disagreed.

7.1.2.2. Language

Sub-section C.2 examined teachers' opinions about the role of language in the attainment of pupils. At the beginning of the sub-section, the term 'linguistic ability' was defined: "The term linguistic ability includes the vocabulary that pupils are able to use as well as their ability in using the language, (expression, correct syntax, and fluency of speech).

The statements and the frequencies of the level of agreement with them are presented in the table 7.1.16.

Table 7.1.16

C.2 The effect of language on attainment.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5
C.2.1. A Pupil's linguistic ability is determined by his/her family background.	472	.6	1.9	20.6	64.6	12.3
C.2.2. Linguistic ability is related to higher attainment in oral tasks.	472	.8	4.2	21.2	59.7	14.0
C.2.3. Linguistic ability is related to higher attainment in written tasks.	472	.8	7.6	28.2	55.1	8.3

C.2 The effect of language on attainment.						
The linguistic ability of pupils may improve through C.2.4.a. School.	472	.4	.8	5.3	69.1	24.4
C.2.4.b. Television.	472	10.4	30.9	39.2	16.5	3.0
C.2.4.c. Reading.	472	.2	.6	1.9	41.5	55.7
C.2.4.d. Interaction with adults.	472	.6	2.5	16.7	62.1	18.0
C.2.4.e. Interaction with peers.	472	1.1	4.9	33.5	48.9	11.7

The first item connected the previous section with the present one, and attempted to investigate teachers' views of the importance of the family in affecting the linguistic ability of the child. The great majority of teachers expressed agreement with this statement (76.9%). A very small percentage disagreed (2.5%). 20.6% took the middle position, implying that the family is not the only factor that determines the linguistic ability of the pupil.

The distribution of participants' responses to the second statement are similar to those of the previous one. 71.9% of teachers agreed or strongly agreed with the statement, and 5.1% disagreed or strongly disagreed. 21.1% took the middle position. Most teachers believe that linguistic ability is related to high attainment in oral tasks.

Similar distributions in the levels of agreement can be seen in the responses to statement C.2.3 (linguistic ability is related to higher attainment in written tasks), although a shift towards non-agreement is obvious in comparison with statement C.2.2 (linguistic ability is related to higher attainment in oral tasks). The level of disagreement was 8.5% here, agreement 63.4% while 28.2% took the middle position.

Table 7.1.17

repeated measures t-tests between mean levels of agreement with statements C.2.2 and C.2.3.					
STATEMENTS	N	Mean	Std Dev.	t value	p
C.2.2. Linguistic ability is related to higher attainment in oral tasks.	472	3.8178	.752	4.79	.000

repeated measures t-tests between mean levels of agreement with statements C.2.2 and C.2.3.					
C.2.3. Linguistic ability is related to higher attainment in written tasks.	472	3.6229	.778		

The comparison between the mean levels of agreement shown in table 7.1.17 between these shows that these teachers believed that higher linguistic ability affects the attainment of the pupils in oral tasks more than in written tasks. Teachers' believe that written tasks do not require such a high linguistic capability as oral ones.

The next 5 statements explored teachers' agreement with factors presented in the interviews to be improving pupils' linguistic level The mean levels of agreement are presented in table 7.1.18:

Table 7.1.18

Means of levels of agreement on factors improving pupils' linguistic ability			
Factors	N	Mean	S.D.
Reading.	472	4.52	.59
School.	472	4.16	.59
Interaction with adults.	472	3.94	.71
Interaction with peers.	472	3.65	.79
Television.	472	2.71	.96

It can be seen that first in order of importance is reading, with a mean of over 4.5. There appears to be a high consensus among teachers that reading is the most important factor in improving pupils' linguistic ability, followed by school, which has a mean of over 4. Greek primary teachers believe that school can compensate with regard to pupils' linguistic level. This may relate to the belief that school can compensate for pupils coming from disadvantaged backgrounds. The next most important factor appears to be interaction with adults, with a mean of 3.94, followed by interaction with peers, with a mean of 3.65. The factor with the least perceived importance in improving of linguistic capability is television with a mean 2.71. Only this mean is lower than 3, showing that teachers appear to disagree that TV improves language. (Each one of these factors is significantly different from the other

as shown in the appendix, table 2.2).

7.1.2.3. Intelligence

This sub-section examined teachers' beliefs about whether differences in intelligence exist among pupils, the behaviours which according to teachers' opinions demonstrate intelligence, and their beliefs on the effect of intelligence on attainment. The statements and the frequencies of the level of agreement with each of them are presented in table 7.1.19.

Table 7.1.19

C.3 The effect of intelligence on attainment.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5
C.3.1. In the class there are pupils with different intelligence.	472	.4	1.1	4.0	58.9	35.6
Differences in intelligence can be seen	446*	.9	3.8	7.8	71.1	16.4
C.3.1.a. In the ease of learning.	446*	1.1	3.1	9.4	67.3	19.1
C.3.1.b. In the speed of learning.	446*	.7	.2	2.2	53.4	43.5
C.3.1.c. In the quality of learning. (Critical thinking, connection of new to previous knowledge, search for reasons why something happens).	446*	.7	1.3	11.0	63.7	23.3
C.3.1.d. In the questions asked by the pupil.	446*	1.3	7.2	30.3	49.8	11.4
C.3.1.e. In out-of-school activities.	446*	.7	4.3	19.8	58.3	16.9
C.3.2. Differences in intelligence are related to differences in attainment.	420**					

*Responded only by participants who marked 3 and 4 in the initial statement

**Not included in the pilot questionnaire.

The above table of frequencies shows that the vast majority of teachers believe that there are differences in intelligence among pupils. Only 1.5% disagreed and only 5.5% took the middle position although, intelligence was deliberately not defined. In the interview study it was shown that most teachers believed that there are more or less intelligent pupils in their classes,

although they did not find it easy to define and describe intelligence.

Teachers who expressed agreement or strong agreement with the initial statement were asked to mark their agreement with the significance of certain behaviours described as intelligent in the interview study. The mean level of agreement with each one of them is seen in table 7.1.20:

Table 7.1.20

Means of levels of agreement with behaviours showing intelligence			
Behaviours	N	Mean	S.D.
Quality of learning. (Critical thinking, connection of new to previous knowledge, search for reasons why something happens)	446	4.39	.61
Questions asked by the pupil	446	4.08	.67
Speed of learning	446	4.00	.72
Ease of learning	446	3.98	.69
Out-of-school activities	446	3.63	.83

Teachers tended to see intelligence first of all in the quality of learning. This was the most important and significantly different from the rest. The next three in order, although without significant differences between them were the questions asked by the pupil, speed of learning and ease of learning. Finally teachers' levels of agreement with the statement that intelligence can be seen in out-of-school activities was the lowest and significantly different from the rest (details of repeated measures t-tests are presented in the appendix, table 2.3). The teachers perceive intelligence as mainly seen in school-based learning situations.

The last item of the present sub-section of statements (differences in intelligence are related to differences in attainment) was not responded to by fifty one participants because they had not agreed or strongly agreed with the initial statement (in the class there are pupils with different intelligence). The distribution of responses shows that the large majority 75.3 % agreed with the statement and only a small percentage disagreed. However, 19.7% took the middle position, probably implying that for them intelligence by itself is not enough to secure high attainment.

7.1.2.4. Motivation

This sub-section of statements (the last of section C) examined teachers' beliefs about the role of motivation in attainment. The items by which it was examined, as well as the teachers' level of agreement, are presented in table 7.1.21:

Table 7.1.21

C.4 The effect of motivation on attainment.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5
C.4.1. Pupils who make an effort attain more.	472	.2	2.3	17.2	65.5	14.8
C.4.2. Pupils who show interest attain more.	472	.2	.8	10.6	68.6	19.7
C.4.3. Pupils who themselves set aims for their future attain more.	472	.2	1.3	10.8	51.1	36.7
C.4.4. Pupils whose parents set aims for their future attain more.	472	3.6	34.5	43.6	15.5	2.8
C.4.5. High grades motivate pupils to work harder.	472	.6	11.4	50.8	34.1	3.0
C.4.6. Low grades motivate pupils to work harder.	472	3.8	28.6	56.6	10.4	.6
C.4.7. Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.	472	2.3	18.2	51.5	25.2	2.8

Effort is the indication of motivation. Motivated pupils can be identified through the effort that they make regardless of whether their motivation is intrinsic, extrinsic or of any other kind. The highest percentage of teachers (80.3%) as can be seen in the above table agreed or strongly agreed that pupils who make an effort attain more, 2.5% disagreed, and 19.5% expressed caution over agreeing or disagreeing.

The rest of the items of this sub-section examined teachers' levels of agreement with 6 motives mentioned in the interviews as affecting pupil attainment. Intrinsic motivation is examined by the statements about interest and about setting aims for the future. Interest has

been mentioned as an indication of intrinsic motivation since the work of (Deci, 1975). Goal setting and achievement motivation, which are examined by the item about setting aims, are also included in intrinsic motivation since they are personal motives controlled by the pupils. On the other hand, high and low grades, family expectancies, and rewards and punishment by the family are extrinsic motives since they are not controlled by the pupils. In table 7.1.22 the means of levels of agreement with each item are shown.

Table 7.1.22

Means of level of agreement with motives affecting attainment			
Motives	N	Mean	S.D.
Pupils who themselves set aims for their future attain more.	472	4.23	.70
Pupils who show interest attain more.	472	4.07	.59
High grades motivate pupils to work harder.	472	3.27	.73
Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.	472	3.08	.80
Pupils whose parents set aims for their future attain more.	472	2.79	.84
Low grades motivate pupils to work harder.	472	2.75	.71

The highest mean level of agreement is expressed with the statement suggesting that pupils who set aims for themselves attain more. This statement examined teachers' beliefs on the effect of pupils' possible selves and achievement motivation on attainment: possible selves, because personalised goals are central to the 'possible selves' theory, and achievement motivation, because trying to reach those goals reflects achievement motivation.

Agreement was almost unanimous. The sum of agreement and strong agreement is 87.8%. Total disagreement is very small (1.5%). 10.8% took the middle position. Teachers believe that the kinds of motivation which are effective in generating high attainment, are the possible selves and achievement motivation of their pupils. Teachers believe that the more pupils have definite aims for their future, the harder they try to achieve them, and the higher they attain. Goal setting not only appears to be taking place in the primary school, where the oldest pupils will make important decisions for their lives six years later, but also, the highest level of teachers' agreement is expressed with this statement. The fact that it is significantly

different than the rest (t- tests are presented in the appendix, table 2.4) from the other kinds of motivation shows that the level of agreement is not only high by itself but it is also higher in relation to all the others.

The next item examined teachers' agreement with the statement 'pupils who show interest attain more'. The sum of agreement is 88.3%, disagreement 1.1%. 11.7% took the middle position. Repeated measures t-tests between the mean level of agreement of this statement compared with the other motives (see appendix, table 2.4) show that all the differences in levels of agreement with the present statement are significantly different from the levels of agreement with the rest of those in this sub-section. Participants believe that intrinsic motivation as expressed by the first two items in this sub-section is significantly more important than extrinsic motivation, expressed by high grades, family rewards and punishments, low grades, and family expectancies. .

Participants' level of agreement with the statement 'high grades motivate pupils to work harder and attain more' shows that in their opinion grades' operation as a reward is the most effective extrinsic motive for harder work and higher attainment. The distribution of levels of agreement with this statement looks different from the previous two. The sum of agreement has dropped to 34.1% and disagreement increased to 12.1% More than 50% of the participants took the middle position. The mean level of agreement with this statement was significantly lower than with the two examined before. Greek primary school teachers consider intrinsic motivation as much more important for high attainment than extrinsic. Rewarding by giving high grades however, appears to be perceived as significantly the most important kind of extrinsic motivation, compared with reward and punishment by the family and low grades. (The differences among them are statistically significant, as shown in the appendix, table 2.4)

The distribution of responses to the statement about rewards and punishments are almost normally distributed, with positive responses a little higher than negative. 28% agreed with the statement, 20.5% disagreed and 51% took the middle position. The level of agreement with this statement is significantly lower than those presented before. However, repeated measures t-tests show that participants' mean level of agreement with the present statement

is not significantly different from the mean level of agreement with the statement about the effects of low grades, but is significantly different (higher) than the mean level of agreement with the statement about the effects of family expectancies. It seems that teachers place the same value on the motivating effects of family rewards and punishments and on the motivating operation of low grades. However, they believe that rewards and punishments by the parents are more effective than family expectancies.

Family expectancies are perceived as least important in motivation. The distribution of responses of this item is skewed towards disagreement. 38.1% expressed disagreement and almost half that percentage, 18.3%, agreed. 43.6%, took the middle position. The level of agreement with this item is significantly lower than for all the other items of this sub-section.

In section C, pupils' family, linguistic ability, intelligence and motivation have been examined with regard to teachers' perceptions on their influences to pupils' attainment. The direct influences of these factors on grading are examined in section D.

7.1.3. Section D: Non-academic factors affecting grading

Section B of the questionnaire examined how teachers assess the attainment of their pupils, and section C the factors which according to their opinions affect pupils attainment. However, as described in the interview study, the attainment of the pupil is not the only factor that leads to the final grade. A number of other factors seemed to affect this directly, and these factors will be examined in section D.

The interviews showed that the factors that were perceived to be affecting the attainment of the pupils also had a direct influence on grading. The direct effects of family, language, intelligence and motivation will now be examined along with pupil behaviour, teachers' personal likes, pupils' differential attainment in different subjects, pupils' awareness of attainment, relativity of grading and teachers' ideas on grading .

7.1.3.1. Family

The family was considered in the previous section as a factor perceived as affecting attainment. The family is also perceived as a factor which directly affects grading. The first sub-section of statements therefore investigated teachers' agreements with statements describing the forms of family effects on grading. The statements and the frequencies of teachers' levels of agreement are presented in table 7.1.23:

Table 7.1.23

D.1 The effect of family on grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree 1	Disagree 2	almost agree/ almost disagree 3	agree 4	Strongly agree 5
D.1.1. I assign grades higher than their attainment to pupils whose parents show interest in their children's progress.	472	13.8	58.3	20.6	7.4	0
D.1.2. I have been asked by friends, relatives etc to assign grades higher than their attainment to some pupils.	472	32.2	43.9	10.2	12.7	1.1
D.1.3. I have assigned at least once higher than attainment grades to children of friends relatives, etc.	472	41.7	37.9	9.5	10.2	.6
D.1.4. I have assigned grades higher than their attainment to children of eminent families in the community (heads of local authorities, upper civil servants etc).	472	48.5	38.1	9.1	3.8	.4

Table 7.1.23 shows that the majority of teachers expressed disagreement with the first statement of this sub-section (72%). 7.4% agreed and 20.6% took the middle position. Most teachers disagreed that they would assign grades higher than their attainment to pupils whose parents show interest in their children's progress.

The percentages of levels of agreement with the second statement shows that the great majority of teachers deny that they have been asked to give higher grades to pupils whose

parents are friends or relatives. However, 13.8% did agree while 10.2% took the middle position.

The third statement related to the previous one, asked whether teachers had actually given grades higher than their attainment to pupils whose parents were friends or relatives. Most teachers (79.7%) expressed disagreement with the statement, but 10.8% agreed.

Table 7.1.24

repeated measures t-tests between mean levels of agreement with statements D.1.2 and D.1.3.					
STATEMENTS	N	Mean	Std Dev.	t value	p
D.1.2. I have been asked by friends, relatives etc to assign higher than their attainment grades to some pupils.	472	2.0657	1.013	3.40	.001
D.1.3. I have assigned at least once higher than attainment grades to children of friends relatives, etc.	472	1.9004	.984		

A comparison between the mean levels of agreement between these two statements was statistically significant (see table 7.1.24). Teachers tended to agree significantly more that they had been asked to give higher grades than that they had actually assigned higher grades. Teachers claim that they reject the pressure for higher grades from friend or relatives.

In the interview study some participants, when asked which were the main differences in grading practices between themselves and other teachers, responded that some teachers give higher grades to children because of the social status of their families. In the questionnaire study, almost half of the sample expressed absolute disagreement. 4.2% agreed while 9.1% took the middle position. Most teachers do not seem to be affected by pupils' family status when grading.

Mean levels of agreement with the statements in this sub-section (see table 7.1.25), reveal that family cooperation with the teachers is perceived as the most important family factor which directly affects grading, followed by whether teachers are friends or relatives of the

family, and finally the status of the family. These differences are significant (see appendix, table 2.5). All the means are low suggesting that the most teachers generally are not influenced by such factors.

Table 7.1.25

Means of level of agreement with family factors affecting grading			
Factors	N	Mean	S.D.
I assign grades higher than their attainment to pupils whose parents show interest in their children's progress.	472	2.22	.77
I have assigned at least once grades higher than attainment to children of friends relatives, etc.	472	1.90	.98
I have assigned higher than their attainment to children of eminent families in the community (heads of local authorities, upper civil servants etc)	472	1.69	.82

7.1.3.2. Language

Language appeared in the interviews to be one of the factors that according to teachers affects the attainment of the pupil. The next three items examine whether language may affect teachers' grading directly. In other words whether the linguistic ability of the pupils may lead to grades higher (or lower) than their attainment. The statements composing this sub-section of items and the frequencies of the levels of agreement marked by participants are presented in table 7.1.26:

Table 7.1.26

D.2 The effect of linguistic ability on grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5

D.2 The effect of linguistic ability on grading.						
D.2.1. At the end of term I assign grades higher than their attainment to pupils with a special linguistic ability.	472	4.0	24.6	31.4	36.9	3.2
D.2.2. A written examination entry (in a non-language subject) expressed in correct language will get a higher grade than an examination entry containing the same information expressed with linguistic mistakes.	472	.8	8.7	19.3	60.2	11.0
D.2.3. An oral examination entry (in a non-language subject) will be assessed more favourably when the pupil has a special linguistic ability.	445*	1.6	9.9	20.2	60.0	8.3

*Not responded by the pilot participants

Table 7.1.26 shows that the distribution of teachers' level of agreement with the first statement is skewed towards positive agreement. A total of 28.6% expressed disagreement, of which only 4% showed absolute disagreement. 31.4% took the middle position, and a total of 40.1% expressed agreement of which only 3.2% absolute agreement. Teachers responded more towards the middle than the extremes. The largest percentage gave positive responses meaning that language is perceived not only to affect the attainment of the pupil, but also can be rewarded per se. A child, who is linguistically more able is not only expected to reach high attainment, but also s/he may be graded higher than his/her attainment. This also means that an unmotivated child with a high linguistic ability who does not reach high attainment may get a higher grade because of his/her linguistic ability.

Linguistic capability at school is expressed in written and oral work. The next two items focus on whether linguistic ability affects grading through these forms of its expression.

The highest percentage of teachers (71.2%) appear to believe that the use of correct language in an examination would receive a higher grade than a paper which contains the same information expressed with linguistic mistakes. Almost one in five participants (19.3%) took the middle position and almost one in ten (9.5%) expressed disagreement or strong disagreement.

Similarly, the distribution of the responses given by participants shows that the highest percentage expressed agreement with the last statement in this sub-section (68.3%) referring to oral ability, more than one in five (20.2%) took the middle position and 11.5% disagreed.

Table 7.1.27

repeated measures t-tests between mean levels of agreement with statements D.2.2 and D.2.3.					
STATEMENTS	N	Mean	Std Dev.	t value	p
D.2.2. A written examination entry (in a non-language subject) expressed with correct language will get a higher grade than a piece of work containing the same information expressed with linguistic mistakes.	472	3.7213	.805	2.27	.024
D.2.3. An oral examination entry (in a non-language subject) will be assessed more favourably when the pupil has a special linguistic ability.	445*	3.6360	.832		

*Not responded by the pilot participants

The difference between the mean levels of agreement with the above two statements is statistically significant, although their means do not differ a lot. This means that teachers tend to express significantly more agreement that correct language use will get a higher mark in a written examination than an oral examination.

7.1.3.3. Intelligence

Sub-section D.3 examined the direct effect of pupils' intelligence on grading.

Table 7.1.28

D.3 The effect of intelligence on grading.						
STATEMENT	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5
D.3.1. At the end of term I will assign grades higher than their attainment to pupils that I consider to be clever.	472	9.1	37.5	35.4	16.1	1.9

In response to the statement that high grades would be given to pupils who are considered to

be more intelligent most teachers gave negative responses (46.6%) (see table 7.1.28). 35.4% took the middle position, while 18% agreed. Most of the participants would not be affected in their grading by their perception of the intelligence of a pupil. But a large percentage by taking the middle position expressed neither agreement nor disagreement, and a not negligible percentage directly stated that they would give higher grades to a pupil considered to be intelligent.

7.1.3.4. Motivation

In the previous section it was shown that teachers believed that motivation affects pupil attainment. This section will examine whether perceptions of pupils' motivation affect teachers' decisions to give higher than attainment grades. Only motives which might have a direct effect on grades are considered in this section. The statements and the frequencies of levels of agreement consisting the present sub-section are presented in table 7.1.29:

Table 7.1.29

D.4 The effect of motivation on grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5
D.4.1. I will assign grades higher than their attainment to pupils because they try hard.	472	.4	1.7	9.5	68.6	19.7
D.4.2. I will assign grades higher than their attainment to pupils because they show interest in some subjects.	472	2.1	26.3	31.4	36.9	3.4
D.4.3. I will assign grades higher than their attainment to pupils because they have set aims for their futures.	472	3.8	31.6	40.5	21.2	3.0

The first statement examined the effects of motivation in general on grading and asked whether teachers would assign high grades to pupils who work hard. A very high percentage (88.3%) expressed agreement with this. Only 2.1% disagreed. Also small is the percentage of

participants taking the middle position (9.5%). Pupil effort is perceived as contributing to grades almost unanimously.

Interest as shown in the table 7.1.29 is not rewarded as much as effort. 40.3% agreed or strongly agreed that interest affects grading compared with 28.4% that disagreed. 31.4% marked the middle position.

A comparison between the responses given to statements on effort and interest shows that their difference is significant (see table 7.1.30).

Table 7.1.30

repeated measures t-test between mean levels of agreement with statements D.4.1 and D.4.2					
STATEMENTS	N	Mean	Std Dev.	t value	p
D.4.1. I will assign grades higher than their attainment to pupils because they try hard.	472	4.0551	.629	20.59	.000
D.4.2. I will assign grades higher than their attainment to pupils because they show interest in some subjects.	472	3.1314	.914		

Teachers seem to reward effort significantly more than interest.

The distribution of responses to the last item of this sub-section concerning aims for the future shows an even greater shift to negative responses. The percentage of participants who disagreed with this statement (35.4%) is higher than those who agreed. (24.2%). The highest percentage, however, took the middle position (40.5%). The majority of teachers would not give higher grades to pupils because they have set aims for their future.

A comparison between the mean levels of agreement with the last two items is also significant (see table 7.1.31).

Table 7.1.31

repeated measures t-tests between mean levels of agreement with statements D.4.2 and D.4.3.					
STATEMENTS	N	Mean	Std Dev.	t value	p
D.4.2. I will assign grades higher than their attainment to pupils because they show interest in some subjects.	472	3.1314	.914	6.17	.000
D.4.3. I will assign grades higher than their attainment to pupils because they have set aims for their futures.	472	2.8792	.886		

Teachers' agreement with the past two items shows that they agreed more with the statement claiming they would give higher grades to pupils who show interest in certain subjects, than with the statement saying that they would give higher grades to pupils who have set aims for their future. The difference is also significant when the present item is compared with the first item of this sub-section of statements, asking for agreement with the statement 'I will assign grades higher than their attainment to pupils because they try hard. (See table 7.1.32)

Table 7.1.32

repeated measures t-test between mean levels of agreement with statements D.4.1 and D.4.3.					
STATEMENTS	N	Mean	Std Dev.	t value	p
D.4.1. I will assign grades higher than their attainment to pupils because they try hard.	472	4.0551	.629	26.18	.000
D.4.3. I will assign grades higher than their attainment to pupils because they have set aims for their futures.	472	2.8792	.886		

Teachers' mean level of agreement with the first statement is significantly higher than that with the second. Teachers seem to reward effort more than they reward the aims set by pupils for their future. The possible reasons for these differences will be examined in the discussion section.

7.1.3.5. Behaviour

In the interview study it was suggested that behaviour affected some teachers' grading in two ways: they rewarded disciplined behaviour by giving higher grades and 'punished' disruptive behaviour by giving lower grades. Some teachers had also claimed that attainment and behaviour are linked since low attainment results in disruptive behaviour. These are the issues examined in this sub-section of statements (see table 7.1.33).

Table 7.1.33

D.5 The effect of behaviour on grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree 1	Disagree 2	almost agree/ almost disagree 3	agree 4	Strongly agree 5
D.5.1. I will assign lower grades than their attainment to pupils with disruptive behaviour.	472	8.7	46.0	29.9	13.6	1.9
D.5.2. I will assign higher grades than their attainment to pupils with disciplined behaviour.	472	7.4	36.9	34.1	20.8	.8
D.5.3. Low attainment results in disruptive behaviour.	472	5.9	30.5	30.3	25.6	7.6

The majority (54.7%) of teachers disagreed that they would assign lower grades to disruptive pupils. 15.5% agreed. Almost one third (29.9%) took the middle position. Almost half of the participants, by agreeing with this statement perceived that they do normally give lower grades for disruptive behaviour, or would do so under certain circumstances, shown by marking the middle position and not disagreeing. Behaviour therefore appears to be an important factor in grading for a large number of teachers.

The second item of this sub-section of responses investigated whether disciplined behaviour is rewarded by higher grades. Table 7.1.33 shows again that the majority of teachers (44.3%) disagreed. Almost one in five (21.6%) agreed and a high percentage (34.1%) took the middle position.

A comparison between the mean levels of agreement with these two items shows that there

is a significant difference between them (see table 7.1.34).

Table 7.1.34

repeated measures t-tests between mean levels of agreement with statements D.5.1 and D.5.2.					
STATEMENTS	N	Mean	Std Dev.	t value	p
D.5.1. I will assign lower than their attainment grades to pupils with disruptive behaviour.	472	2.5403	.900	-4.51	.000
D.5.2. I will assign grades higher than their attainment to pupils with disciplined behaviour.	472	2.7076	.907		

Teachers agree significantly more with the second statement than the first. They are more likely to give higher grades to pupils with disciplined behaviour than to give lower grades to pupils with disruptive behaviour. The level of agreement between these two statements is moderately correlated ($r=.602$, $p=.000$) Thus, it seems that the more likely teachers are to give low grades to disruptive pupils the more likely they are to give higher grades to disciplined pupils.

The last item in this sub-section of statements is not directly linked with grading. It consists of a statement mentioned in the interview study and examines if teachers consider that disruptive behaviour and low attainment are linked. Teachers' responses to this statement are divided. 36.4% disagreed and 33.2 % agreed. 30.3% took the middle position. Opinion on this is almost equally divided.

7.1.3.6. Personal likes

This sub-section of statements examined the role of personal likes in grading. The interview study showed that some teachers liked some pupils more than others and that this has an effect

on their grading. This sub-section of statements examined first of all whether some teachers like some pupils more than others, then the pupil characteristics that make some children liked and finally if personal likes affect grading. The statements composing this sub-section and frequencies of participants' levels of agreement with them are presented in table 7.1.35.

Table 7.1.35

D.6 The effect of teachers' personal likes on grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5
D.6.1. Willingly or not, I like some pupils more than others.	472	7.8	17.2	22.2	49.2	3.6
Personal likes are created by taking into account: D.6.1a. The appearance of the pupil.	249*	14.5	40.6	18.1	25.7	1.2
D.6.1b. The character of the pupil.	249*	0	1.6	4.8	70.3	23.3
D.6.1c. The family of the pupil.	249*	15.3	49.0	21.3	12.9	1.6
D.6.1d. The attainment of the pupil.	249*	2.4	14.9	13.3	59.8	9.6
D.6.1e. The behaviour of the pupil.	249*	1.2	1.2	5.6	63.1	28.9
D.6.2. Personal likes affect me willingly or not, to a greater or to a lesser degree in assigning grades.	249*	9.2	26.1	31.3	31.3	2.0

*Responded only by participants who marked 4 and 5 for the initial statement.

Table above 7.1.35 shows that the majority of teachers (52.8%) agreed with the statement that willingly or not they like some pupils more than others. One in four (25%) disagreed and 22.2% took the middle position. A high percentage who took the middle position did not emphatically deny liking some pupils more than others.

Five factors which were mentioned by the interviewees as affecting the creation of personal likes were examined by the next five items. Participants who had marked above three in the previous statement were asked to express their agreement with them. Table 7.1.36 presents them in order of importance according to the mean level of participants' agreement with each.

Table 7.1.36

Means of levels of agreement with factors affecting teachers' personal likes.			
Factors	N	Mean	S.D.
Behaviour of the pupil.	249*	4.17	.69
Character of the pupil.	249*	4.15	.57
Attainment of the pupil.	249*	3.59	.94
Appearance of the pupil.	249*	2.59	1.06
Family of the pupil.	249*	2.37	.95

Table 7.1.36, presenting the means of participants' levels of agreement with the factors identified as responsible for the creation of personal likes, shows that the first in order of importance is the behaviour of the pupil, followed by the character of the child. Attainment is in the third position, with a mean above three, with the appearance of the child and the family of the child having a mean of less than three.

A comparison of the means of agreement of the first variable with the rest (see appendix table 2.6) shows that behaviour and character, which were the most important factors for the creation of personal likes, do not differ significantly. However, the differences between behaviour and all the other factors examined are significant. Teachers perceive that they mainly like pupils with regard to their behaviour and character. Behaviour per se plays a role in grading. Here it seems that behaviour also affects teachers by influencing their likes. Personal likes also affect the grading of some pupils (see table 7.1.35). Therefore behaviour affects grading not only directly but also indirectly.

Repeated measures t-tests (presented in the appendix, table 2.6) show that the mean of the levels of agreement with the statement saying that personal likes are affected by pupils' character is significantly different from the means for effects of attainment, appearance and looks. Pupil's character therefore is the second factor in order of importance for the creation of personal likes, not significantly different from behaviour as shown before, but significantly higher than attainment, appearance and family.

The next factor in order of importance for the creation of personal likes, with a mean of higher

than 3, is the attainment of the pupil. It appears that high attainment is an important factor for the creation of personal likes. This factor is third in order of importance and as already shown is significantly different from behaviour and character. The differences between it and the next two factors in order of importance are significant (see appendix, table 2.6). It has also already been shown that this variable was significantly different from the previous two. Attainment therefore seems to affect the creation of personal likes significantly less than behaviour and character, and significantly more than the appearance and the family of the child.

The next two statements examined whether appearance and the family of the child affect teachers' personal likes. The means show that disagreement with the statements for these variables is higher than agreement. It has already been shown that these two variables differ significantly from all the previously examined ones. A comparison between these two shows that there is a significant difference between them (see appendix, table 2.6). It seems therefore that the appearance of the child is a significantly more important factor for liking a pupil than his/her family (and less important than all the previously mentioned ones). Family therefore is the least important factor, significantly differing from all those examined in this sub-section of statements.

The last item in this sub-section examined whether personal likes affect teachers' grading. As seen in table 7.1.35, the responses are almost equally divided. Similar percentages agreed (35.3%), disagreed (33.3%), and took the middle position (31.3%). It seems that a large percentage of those who had responded that they like some pupils more than others admitted that they would give a higher grade than their attainment would suggest to those pupils. If the findings of the previous statements are combined with this, it can be concluded that the behaviour, character and attainment of the pupils indirectly affect grading by the majority of teachers, and that appearance and family affect a smaller percentage's grading. It has been shown before that behaviour directly affects grading. Here it appears that it also affects grading indirectly. Also the family of the child appears to have a small direct effect on grading. Here it appears that the family plays another small indirect role, as teachers may give higher grades to pupils liked due to their family. Pupil character is perceived to have an impact on grading and it is important that attainment appeared to affect teachers liking of

pupils. A high achiever appears to be more likely to get even higher grades because attainment appears to be affecting teachers' personal likes which in turn affect grading. The appearance of the child seems to have an effect on at least some teachers' grading.

7.1.3.7. Differential attainment in different subjects

Sub-section D.7 consists of statements examining whether grading in some subjects is affected by attainment in other subjects. The statements in this sub-section and the frequencies of participants' level of agreement with them are presented in table 7.1.37.

Table 7.1.37

D.7 The effect of differential attainment on grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree 1	Disagree 2	almost agree/ almost disagree 3	agree 4	Strongly agree 5
D.7.1. Pupils' attainment is different in different subjects.	472	.4	2.3	9.5	75.2	12.5
D.7.2. High attainment in some subjects affects in a positive way my grading in others.	414*	4.1	34.8	30.2	30.2	.7
D.7.3. Low attainment in some subjects affects in a negative way my grading in others.	414*	6.0	52.2	28.3	13.5	0

*Responded only by participants who responded 3 and 4 to the first statement.

Almost unanimously, teachers agreed with the first statement (87.7%) that pupils attainment is different in different subjects. Only a very small minority disagreed (2.8%), or took the middle position (9.5%). In general Greek teachers believe that pupils attain differently in different subjects.

The finding of the interview study, that high attainment in some subjects affects attainment in other subjects, was also true for a large percentage of teachers (see table 7.1.37). Although the highest percentage of teachers disagreed (38.9%), almost one in three (30.9%) agreed and an almost equal percentage (30.2%) took the middle position. Although the curriculum is

separated into subjects which are supposed to be assessed and graded independently, a large percentage of teachers tend to be affected in a positive way by positive attainment in other subjects when grading.

The distribution of responses to the third statement (low attainment in some subjects affects in a negative way teachers' grading in other subjects) is rather different from the previous one. Disagreement with this item increased to 58.2% and agreement dropped to 13.5%. It is notable that there are no responses expressing absolute agreement with this statement. A comparison of the mean levels of agreement with the two statements shows that there is a significant difference between them.

Table 7.1.38

repeated measures t-tests between mean levels of agreement with statements D.7.2 and D.7.3					
STATEMENTS	N	Mean	Std Dev.	t value	p
D.7.2. High attainment in some subjects affects in a positive way my grading in others.	414*	2.8865	.912	10.53	.000
D.7.3. Low attainment in some subjects affects in a negative way my grading in others.	414*	2.4928	.802		

Teachers appear therefore to be significantly more affected by positive attainment in some subjects, giving higher grades to others, than by negative attainment in some giving lower grades to others. Teachers appear to have a tendency towards leniency. It may be recollected that teachers appeared to give higher grades for disciplined behaviour, rather than lower grades for disruptive behaviour. The percentage however which agreed (13.5%) with the last statement is not negligible. More than one in ten teacher seems to be affected by low attainment in some subjects when grading others.

7.1.3.8. Pupils' awareness of attainment

Sub-section D.8 examines the limitations of the arbitrariness of grading. Some teachers in the

interview study had claimed that to some extent they would give higher or lower grades in order not to disturb the sense of justice in the classroom. They claimed that pupils are aware of their attainment and they would not give grades which would be considered unfair. Others thought that pupils of primary school age were too immature to judge what is a fair grade for each of the pupils. The statements for this sub-section and frequencies of participants' levels of agreement with them are presented in table 7.1.39.

Table 7.1.39

D.8 The effect of pupils' awareness of attainment on grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree	Disagree	almost agree/ almost disagree	agree	Strongly agree
		1	2	3	4	5
D.8.1. Pupils are aware of their attainment in relation to others.	472	.6	1.5	11.0	68.0	18.9
D.8.2. Pupils' awareness of attainment is taken into account when they are graded. (I will not give low grades to those who are considered 'high achievers' nor high to 'low achievers' in order not to disturb the sense of justice of the class.	410*	6.6	25.9	21.5	39.8	6.3

*Responded only by participants who responded 3 and 4 to the first statement.

The great majority of teachers (86.9%) believe that primary school pupils are aware of their attainment in relation to their classmates. Only 2.1% disagreed; 11% took the middle position.

Table 7.1.39 shows that there is no consensus in the levels of agreement with the statement that teachers take into account pupils' awareness of attainment in grading. Although nearly half of the participants who responded to this statement agreed (46.1%) with the statement, 32.5% disagreed. 21.5% took the middle position. In the interviews it was shown that the sense of justice was the only factor that restricted teachers' arbitrariness in grading. This

finding shows that almost half the teachers consider the pupils' awareness of attainment in their grading practices. However it may not be the only factor restricting their arbitrariness.

7.1.3.9. Local factors

So far, a number of pupil factors which have an effect on teachers grading have been examined. The last two sub-sections of statements examine the effects of school factors and teachers' ideas about grading. The statements consider whether the characteristics of the class affect teachers in giving generally higher grades in one class, in comparison to the grades they would give in another class with different characteristics. The reader is reminded that in the interview study a teacher claimed that a 10 given to a pupil in a village equals a 9 in a small town and an 8 in a large town. This part of the questionnaire began by explaining 'relativity' in this context. The statements for this sub-section and frequencies of participants' levels of agreement with them are presented in table 7.1.40.

Table 7.1.40

D.9 The effect of local factors on grading.						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree 1	Disagree 2	almost agree/ almost disagree 3	agree 4	Strongly agree 5
D.9.1. My grading is relative to certain school factors and shows similarities and differences within the particular class. (The same grade may mean totally different things in another class in another school.	472	.8	5.5	17.2	60.6	15.9
My grades take a different meaning and value according to: D.9.1.a. The educational level of the pupils of the class.	361*	.6	.6	6.1	80.1	12.7
D.9.1.b. The social background of the majority of pupils.	361*	1.1	16.9	17.5	57.1	7.5
D.9.1.c. The geographical area where the school is situated.	361*	1.9	16.9	19.1	56.5	5.5

*Responded only by participants who responded 3 and 4 to the first statement.

The above table shows that the majority of teachers (76.5%) agreed with the statement about

the relativity of grading. A small percentage disagreed (6.4%) and 17.2 took the middle position.

The next three items were responded to by the participants who marked above (3) for the previous statement. Factors which may affect the overall class grading are explored. The statements are related since the geographical area tends to determine the social background of the pupils and therefore their educational level. However, pupils of the same geographical area and social background may have different educational levels, children with similar educational levels do come from different backgrounds and geographical areas and so on. Therefore, all three factors were examined separately.

The table of frequencies of agreement with the first factor shows that the great majority of participants agreed (91%) that the educational level of the class gives a different value and meaning to their grades. Only 1.3% disagreed. 9% took the middle position. A comparison between the levels of agreement with the present statement and each of the other two revealed significant differences.

The frequencies of responses to the statement, ‘the grade that I give takes every time a different meaning and value in relation to the social background of the majority of the pupils of the class’ showed high agreement (63.2%) and a lower level of disagreement (18.5%). 18.3% marked the middle position.

For the last factor, (geographical area), the largest percentage (60.9%) agreed, 19.4% disagreed, and 19.7% took the middle position.

Table 7.1.41

Means of levels of agreement with factors affecting meaning and value of grades.			
Factors	N	Mean	S.D.
Educational level of the pupils of the class.	361	4.04	.51
Social background of the majority of pupils.	361	3.53	.90
Geographical area where the school is situated.	361	3.47	.90

Table 7.1.41 presents the mean level of teachers' agreement with each of the factors. All are above 3, which means that teachers in general agree that all of them have an effect on their grading. Comparisons among them (see appendix table 2.7) showed that the educational level of the class is the most important, significantly differing from the other two, while the other two do not differ from each other. The educational level of the class is considered the most important factor, while pupils' social background and the geographical area of school are considered as almost equally important, but second in order.

7.1.3.10. Teachers' ideas about assessment

The last sub-section of statements examined teachers' opinions on assessment in general in the primary school, which might affect their grading practices. The statements in this sub-section and frequencies of participants' levels of agreement with them, are presented in table 7.1.42.

Table 7.1.42

D.10 Teachers' ideas about assessment						
STATEMENTS	N	Level of agreement (% of teachers)				
		Strongly disagree 1	Disagree 2	almost agree/ almost disagree 3	agree 4	Strongly agree 5
D.10.1. Grading should not take place in the primary school.	472	18.0	47.5	19.9	11.2	3.4
D.10.2. The grading scale should be numerical so the differences among pupils are more evident.	472	14.2	30.7	22.9	22.5	9.7
D.10.3. Other teachers assess in the same way as me.	472	7.4	27.1	50.8	13.3	1.3

The majority of participants disagree (65.5%) that grading should not take place in the primary school. 19.9% took the middle position, and a smaller percentage agreed (14.6%). The majority of Greek primary teachers are in favour of grading.

The second statement examined teachers' agreement with an opinion expressed in the interviews, namely that grading should be numerical in all year groups, so that the differences among pupils would be more evident. Most teachers agreed or strongly agreed with the statement (44.9%), compared with 32.2% who disagreed or strongly disagreed. 22.9% took the middle position.

The last item assessed teachers' agreement with the statement 'other teachers grade in the same way as me'. 34.5% agreed or strongly agreed, while a smaller 16.6% disagreed. The majority 50.8% by marking 3 refused to take a position. This item was followed by an open ended question asking them to state which are the main differences between them and their colleagues. The reader is reminded that interesting information was provided in the interviews as a result of asking the same question. However, no responses to this question were received.

The last question asked for any general comments about the questionnaire. The great majority did not respond; however, some very positive comments were received.

7.1.4. Summary

In summary, the questionnaire findings largely substantiated the interview data. Namely:

-Teachers perceive that they grade by creating an overall picture of the academic attainment of pupils. The importance placed on each of the academic criteria for grading however differed.

- The majority of teachers did not appear to take great account of test results for grading, particularly formal ones.

-The most important academic criterion for grading was classroom participation.

-Although homework was considered important by the majority of teachers, it did not appear

to affect the grading of the majority.

-Family background was considered to have a direct affect in pupils' attainment. The psychological and material environment in which a pupil lives, the cooperation between parents and teachers, the educational level of the family, and to a lesser degree the financial level of the family were thought to be the most important family factors in pupils' attainment by the majority of participants. The direct influence of family on grading was perceived to be very small.

- The majority of teachers believed that pupils with higher linguistic ability were likely to have higher attainment. They also they appeared to be willing to give higher grades than attainment to these children because of their linguistic capability.

-The majority of teachers believed that the more intelligent the pupils, the more likely they are to attain higher, however, intelligence did not appear to be rewarded per se with higher grades than attainment.

-Intrinsic motivation was perceived by the vast majority of teachers to affect pupils' attainment. Extrinsic motivation was perceived as less important. Teachers also appeared willing to give higher grades than attainment to pupils who make an effort.

-Pupils' behaviour did not appear to affect the majority's grading. A significant minority however, appeared to be affected by behaviour in their grading.

-The majority of teachers appeared to like some pupils more than others. Liked pupils are likely to be assigned higher grades by a substantial percentage of teachers.

-According to the majority of teachers pupils attain differently in different subjects. Although the majority of teachers appeared to grade different subjects independently, some of them appeared to be affected by pupils' attainment in some subjects in assigning grades in others.

-Pupils' awareness of attainment in relation to others appears to be taken into account by a substantial percentage of teachers when assigning grades.

-School and class factors, namely the educational level of the class, the social background of the majority of pupils, and the geographical area where the school is situated, were perceived to give a different value and meaning to grades. This makes comparison difficult between the grades of pupils of other schools of the same year group.

Although the above summarise the opinions expressed by the majority of teachers, as shown earlier in this section, there was a degree -sometimes large, sometimes small- of differentiation in participants' levels of agreement with each of the statements. The following section will examine whether participants' demographic characteristics accounted for any of the differentiation.

CHAPTER 7.2

QUESTIONNAIRE ANALYSIS AND RESULTS: DIFFERENCES AMONG DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

In the first section of the analysis of results, the frequencies of levels of agreement with the statements composing the questionnaire were presented. In this section, differences in the mean levels of such agreement among participants with different demographic characteristics will be considered. Analysis of the reasons for these differences will take place in the discussion.

Participants' demographic characteristics and their sub-groups, for which the mean levels of agreement are compared are the following:

1. *Gender*: Male and female
2. *Overall experience*: Participants were divided in 4 groups according to their overall teaching experience: 0-9 years (0 if the year of the study was their first year at work), 10-19, 20-29 and 30+.
3. *Geographical area teaching in*: Participants of the study were serving in urban, rural and semi-rural areas. Due to the small number of participants, the last two sub-categories were added together. The areas were categorised as urban or non-urban.
4. *Year group currently teaching*: Participants were divided in two sub-groups: Those teaching the three youngest (first 3) year groups at the time of the study and those teaching the three oldest (last 3).
5. *Year groups chiefly taught*: Teachers were asked to state which year groups they had taught most in the past. Three groups were created: Those who had taught the three youngest (first 3), the three older year groups (last 3), and those who had taught all year groups equally.
6. *Education*: Two sub-groups of participants were defined according to their education: Those with Academy certificates, and those with Higher, including university and post graduate

degrees.

7. *INSET*: This category indicates whether they had participated in INSET in the past or not.

7.2.1. Academic factors affecting grading

7.2.1.1. Tests

Two significant differences appeared in the mean levels of agreement with the statement regarding the influence of formal ministry tests in grading among teachers with different demographic characteristics. These differences are presented in table 7.2.1:

Table 7.2.1

Differences among teachers in agreement with statement B.1.1: When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	272	2.1912	.7341	8.3019	.0041*
	male:	200	2.4100	.9144		
Year groups chiefly taught	first 3:	224	2.1964	.7377	3.0597	.0478*
	last 3	212	2.3868	.9088		
	all:	36	2.2222	.7216		

Male teachers appeared to agree significantly more than female with this statement. Male teachers appear to take formal ministry tests into account significantly more than females. The year groups that teachers had chiefly taught during their past experience appear to account for a significant difference. A post hoc analysis (Tukey's b) showed that there was significant difference in the means of teachers who had worked for longer with the three youngest years groups and those who had worked for longer with the three oldest year groups. Teachers who have worked longer with the three oldest year groups appear to take formal ministry tests into account significantly more than those who have worked longer in the three youngest year groups of the primary school.

No differences in the mean levels of agreement among participants with different demographic characteristics were found for the statement ‘I do not take them (formal ministry tests) into account because they only represent the ability of the pupil to memorise’, although there were significant differences relating to whether pupils might know the answers in advance (see table 7.2.2).

Table 7.2.2

Differences among teachers in agreement with statement B.1.1.b: I do not take them into account because pupils may know the answers in advance						
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F	
<i>Overall Experience</i>	0-9yrs:	92	3.7065	1.0847	5.3346	.0014*
	10-19yrs:	136	3.6250	.9423		
	20-29yrs:	57	3.1579	.9781		
	30+yrs	17	3.0588	.8993		

It seems that the less experienced the teachers, the more they tended to agree with this statement. However, a post hoc analysis (Tukey’s b) showed that significant differences existed between the first two groups and the third. Teachers with 0 to 9 and 10 to 19 years of experience relied significantly less on formal ministry tests than teachers with 20 to 29 years of experience.

Experience again, as well as teachers’ education appeared to account for differences in the mean levels of agreement with the statement regarding information derived from the self developed tests among participants with different demographic characteristics (see table 7.3.3) :

Table 7.2.3

Differences among teachers in agreement with statement B.1.2: When I assign grades the main source of information are the tests I devise myself					
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F

Overall Experience	0-9yrs:	149	3.3154	1.0206	2.8536	.0369*
	10-19yrs:	198	3.0606	.9593		
	20-29yrs:	94	3.0106	.9332		
	30+yrs	31	2.9677	1.0483		
Education	academy	396	3.0859	.9796	3.9019	.0488*
	higher	76	3.3289	.9985		

A post hoc analysis (Tukey's b) showed that the significant difference was between teachers with 0-9 years of experience and those with 10-19. Teachers with 0-9 years of experience rely significantly more on tests created by themselves than teachers with 10-19 years. Also, a significant difference appeared between teachers with different degrees. Teachers with higher than Academy education appeared to rely significantly more on tests created by themselves than those with only an Academy certificate.

Four factors appeared to account for significant differences in participants' mean levels of agreement with the statement regarding tests as a contributor to the overall academic picture of the pupil, as shown in table 7.2.4:

Table 7.2.4

Differences among teachers in agreement with statement B.1.3: Tests, formal and informal only contribute to the overall picture of the pupil						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	272	4.2059	.7301	6.1253	.0137*
	male:	200	4.0250	.8532		
Overall Experience	0-9yrs:	149	4.3154	.7892	4.1795	.0062*
	10-19yrs:	198	4.0404	.7663		
	20-29yrs:	94	4.0638	.7004		
	30+yrs	31	4.0000	1.0328		
Geographical area teaching in	urban	383	4.1697	.7826	5.3970	.0206*
	non-urban	89	3.9551	.7964		
Year groups chiefly taught	first 3:	224	4.1652	.7777	3.9538	.0198*
	last 3	212	4.0425	.8105		
	all:	36	4.4167	.6492		

Female teachers appear to agree significantly more than males that tests, formal and informal, only contribute to the overall picture of the pupil. A post hoc analysis (Tukey's b) showed that teachers with 0-9 years of experience agreed significantly more than those of 10-19 and 20-29 with the same statement, and teachers teaching in urban areas agreed more than those teaching in non-urban areas. A post hoc analysis (Tukey's b) showed that teachers who had worked longer in the past with pupils of any age, tended to agree more with the statement than those who had worked longer with the three oldest year groups.

7.2.1.2 Classroom Participation

Table 7.2.5

Differences among teachers in agreement with statement B.2.1: Classroom participation is one of the most important criteria that I take into account for final grading						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Gender</i>	female:	272	3.7316	.8136	5.4584	.0199*
	male:	200	3.9100	.8278		

Male teachers appeared to have a significantly higher mean level of agreement than female teachers with the statement that classroom participation one of the most important criteria taken into account in final grading (see table 7.2.5).

Gender, as well as year groups chiefly taught, also seems to account for a significant differentiation in the mean levels of agreement with the statement that classroom participation is biased against shy and withdrawn pupils (see table 7.2.6).

Table 7.2.6

Differences among teachers in agreement with statement B.2.2: 'I do not take it into account because it is biased against shy and withdrawn pupils.'						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F

Gender	female:	272	2.5956	.7575	6.0025	.0146*
	male:	200	2.4200	.7853		
Year groups chiefly taught	first 3:	224	2.6205	.7888	4.3909	.0129*
	last 3	212	2.4057	.7639		
	all:	36	2.5833	.6492		

Female teachers appear to agree significantly more with this statement than males. Female teachers seemed to be more cautious in taking classroom participation into account in grading than males. A post hoc analysis (Tukey's b) showed that teachers who had taught the three youngest year groups more, were significantly more cautious in taking into account classroom participation than those who had taught chiefly the three oldest year groups. These variables are correlated, which means that female teachers tend to work with the three youngest year groups and males with the last three.

Gender accounted for significant differences in the mean levels of agreement with the statement that classroom participation only contributes to the overall picture of the pupil (see table 7.2.7).

Table 7.2.7

Differences among teachers in agreement with statement B.2.3: Classroom participation only contributes to the overall picture of the pupil.						
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F	
Gender	female:	272	3.8272	.8304	6.0277	.0144*
	male:	200	3.6300	.9040		

Female teachers agreed significantly more with this statement than males. Female teachers appear to take classroom participation into account only as contributing to the overall picture, while male teachers rely on it much more according to this and the two previous findings.

7.2.1.3. Homework

The question of whether homework should be given or not differentiates clearly between teachers with different demographic characteristics (see table 7.2.8).

Table 7.2.8

Differences among teachers in agreement with statement B.3.1: Homework should not be given. All the work should take place at school.'						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	272	2.2500	1.0255	11.9000	.0006*
	male:	200	2.5800	1.0290		
Overall Experience	0-9yrs:	149	1.0290	.9353	6.8133	.0002*
	10-19yrs:	198	2.3434	1.0291		
	20-29yrs:	94	2.6915	1.0679		
	30+yrs	31	2.8065	1.1950		
Year group currently teaching	first 3:	229	2.2358	1.0071	9.9645	.0017*
	last 3:	243	2.5350	1.0493		
Year groups chiefly taught	first 3:	224	2.2679	1.0671	3.1017	.0459*
	last 3	212	2.5142	.9999		
	all:	36	2.4167	1.0247		

Female teachers appear to be significantly more pro-homework than males. A post hoc analysis (Tukey's b) of the sub-groups with regard to overall experience showed that the less experienced the teachers were, the more pro-homework they were (the first three sub-groups differ significantly from each other, and no significant differences were found between the last sub-group and any of the first three). Teachers who either had worked with the three youngest year groups in the past or were teaching them at the time of the study, appeared to be more pro-homework than those who worked with the three oldest year groups for longer in the past,

or were teaching them at the time of the study.

Experience, education and INSET differentiated between the mean levels of agreement with the statement about taking account of diligence as it appears through homework preparation (see table 7.2.9).

Table 7.2.9

Differences among teachers in agreement with statement B.3.2:						
' When I assign grades I take into account diligence as it appears through homework preparation.'						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Overall Experience</i>	0-9yrs:	149	2.9799	1.0684	4.4901	.0040*
	10-19yrs:	198	2.8838	1.0431		
	20-29yrs:	94	2.5957	.8465		
	30+yrs	31	2.4516	.8099		
<i>Education</i>	academy:	396	2.7879	1.0065	3.9598	.0472*
	higher:	76	3.0395	1.0256		
<i>INSET</i>	yes	183	2.6885	1.0143	5.7579	.0168*
	no	289	2.9170	1.0035		

Homework seems to be taken into account significantly more by less experienced than more experienced teachers. A post hoc analysis (Tukey's b) showed that teachers with 0-9 years of experience took homework preparation into account for final grading significantly more than those with 20-29 and 30+ years. Also, teachers with 10-19 years of experience took into account homework significantly more than those with 20-29 years of experience. The more educated the teachers, the more they took homework into account. Teachers who held a higher than academy certificate, as well as teachers who had attended an INSET course also seemed to take into account homework significantly more than those who had an academy certificate and those who had not attended any INSET courses.

Two factors accounted for differentiation in participants' mean levels of agreement with the statement related to homework contributing to the overall picture of the pupil (see table 7.2.10).

Table 7.2.10

Differences among teachers in agreement with statement B.3.3: Homework preparation only contributes to the overall picture of the pupil						
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F	
<i>Overall Experience</i>	0-9yrs:	149	3.8926	.7723	3.2635	.0213*
	10-19yrs:	198	3.7929	.7353		
	20-29yrs:	94	3.9468	.7089		
	30+yrs	31	3.4839	1.1216		
<i>Year group currently teaching</i>	first 3:	229	3.9345	.7133	7.4113	.0067*
	last 3:	243	3.7407	.8249		

Teachers with 0-9 years of experience differed significantly in the mean levels of agreement with this statement from those with 30+ years, as well as teachers with 20-29 from those with 30+. Teachers teaching the three youngest year groups at the time of the study agreed significantly more than those who worked with the three oldest year groups.

7.2.2. Factors affecting academic attainment

7.2.2.1. Family background

No differences were found among participants with different demographic characteristics concerning the statement: 'The material environment (good or bad living conditions) affects pupils' attainment.'

Differences were found however in the second statement that the psychological environment affects pupils' attainment (see table 7.2.11):

Table 7.2.11

Differences among teachers in agreement with statement C.1.2: The psychological environment in which a pupil lives affects his/her attainment					
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F

<i>Overall Experience</i>	0-9yrs:	149	4.6242	.5387	3.6719	.0123* (.0044*)
	10-19yrs:	198	4.5000	.5587		
	20-29yrs:	94	4.4787	.6175		
	30+yrs	31	4.2903	.5287		
<i>Geographical area teaching in</i>	urban	383	4.5614	.5225	10.3734	.0014* (.0062*)
	non-urban	89	4.3483	.7087		
<i>Education</i>	academy:	396	4.4899	.5758	7.5747	.0061* (.0038*)
	higher	76	4.6842	.4956		

(In brackets, significance of Kruskal-Wallis 1-way ANOVA)

Due to the distribution of responses both parametric and non parametric analysis was used. Both tests, ANOVA and 1 way Kruskal-Wallis ANOVA, revealed the same significant differences. The first of these is between the least and the most experienced groups of teachers. Teachers with 0-9 years of experience placed significantly more importance on the psychological wellbeing of the child as affecting its attainment than teachers with 30+ years of experience. Teachers teaching in urban areas tended to agree significantly more with the statement than teachers in non-urban areas. Finally teachers with education higher than Academy appeared to attribute significantly more importance to the psychological environment of the child than those with an Academy certificate.

One significant difference was found in the mean levels of agreement with the statement that divorce affects the psychological condition of the pupil (see table 7.2.12):

Table 7.2.12

Differences among teachers in agreement with statement C.1.2.a:					
Factors that affect the psychological condition of the pupil:					
Divorce					
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F

<i>Overall Experience</i>	0-9yrs:	148	4.4459	.5980	4.3520	.0049* (.0145*)
	10-19yrs:	198	4.2576	.6976		
	20-29yrs:	94	4.2553	.7751		
	30+yrs	30	4.0000	.9097		

(In brackets, significance of Kruskal-Wallis 1-way ANOVA)

The group of least experienced teachers (0-9 years) appeared to differ significantly from the 10-19 and 30+ groups. The least experienced teachers believed significantly more that divorce affects the psychological condition of children than the other groups.

In judging the importance teachers place on the death of a parent as a factor affecting the psychological wellbeing of pupils, experience appeared to account for significant differences (see table 7.2.13).

Table 7.2.13

Differences among teachers in agreement with statement C.1.2.c: Factors that affect the psychological condition of the pupil: Death of a parent.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Overall Experience</i>	0-9yrs:	148	4.5473	.5754	5.2248	.0015* (.0239*)
	10-19yrs:	198	4.4596	.6419		
	20-29yrs:	94	4.2553	.8912		
	30+yrs	30	4.1333	.9371		

(In brackets, significance of Kruskal-Wallis 1-way ANOVA)

The first two groups (0-9 and 10-19 years of experience) appeared to significantly differ from the third (30+years). The first group also differed significantly from the second. That less experienced teachers tended to agree with the statement significantly more than the more experienced.

No significant differences were found among the different sub-groups for participants' mean levels of agreement with the following statements:

'Family discord is a factor that affects the psychological condition of the pupil'

'Relationships with friends are a factor that affects the psychological condition of the pupil'

'Cooperation between parents and teachers results in pupils' higher attainment.'

This happens because:

'Parents who are interested in their children' progress help them more.'

'Pupils who are aware of the cooperation between their parents and teachers tend to work harder.'

The next statement for which significant differences appeared is concerned with the educational level of the family (see table 7.2.14).

Table 7.2.14

Differences among teachers in agreement with statement C.1.4: The higher the educational level of the family the higher the attainment of their children.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	272	3.7206	.7359	11.4834	.0008*
	male:	200	3.9500	.7142		
Geographical area teaching in	urban	383	3.8512	.7136	4.2195	.0405*
	non-urban	89	3.6742	.8087		

Male teachers appeared to agree significantly more that the educational level of the family the higher the attainment of the pupil, as did teachers who worked in urban areas at the time of the study compared to those in non-urban areas.

No differences among groups of teachers with different demographic characteristics were found in the mean levels of agreement with the statement 'Uneducated parents have a negative predisposition towards school.'

Experience appeared to account for the differences found over the next reason for the

relationship between the family's educational level and attainment, i.e. that uneducated parents do not provide enough educational material for their children (see table 7.2.15).

Table 7.2.15

Differences among teachers in agreement with statement C.1.4.b: Uneducated parents do not provide enough educational material for their children						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Overall Experience</i>	0-9yrs:	99	2.3838	.8655	3.3934	.0182*
	10-19yrs:	148	2.3378	.8456		
	20-29yrs:	70	2.6714	.9124		
	30+yrs	23	2.7391	.8643		

A post hoc analysis (Tukey's b) showed that the significant difference occurred between the second and the third groups of teachers, namely those with 10-19 years of experience and those with 20-29 years of experience.

The next statement relating family's educational level and attainment was that educated parents transmit more knowledge to their children and therefore they attain more. One significant difference was found see table 7.2.16.

Table 7.2.16

Differences among teachers in agreement with statement C.1.4: Educated parents transmit more knowledge and therefore their children attain more.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Geographical area teaching in</i>	urban	283	3.9152	.6413	6.4092	.0118*
	non-urban	57	4.1404	.4407		

Teachers who worked in non-urban areas appeared to agree more with the statement than those who worked in urban areas.

In the next item, teachers were asked to mark their agreement on whether the financial level of the family is related to educational attainment. Differences were found in response to this between male and female teachers and teachers with different educational levels (see table 7.2.17).

Table 7.2.17

Differences among teachers in agreement with statement C.1.5: The higher the financial level of the family the higher their children' attainment.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	272	2.6176	.7972	7.7348	.0056*
	male:	200	2.8250	.8047		
Education	academy:	396	2.6616	.7966	7.3903	.0068*
	higher:	76	2.9342	.8220		
INSET	yes	183	2.7978	.8238	3.9433	.0476*
	no	289	2.6471	.7906		

Male teachers ascribe significantly more importance to the financial level of the family than female. Also, teachers who had a degree higher than academy certificate and those who had attended an INSET course agreed with the above statement significantly more than those who had an academy certificate and had not participated in INSET.

One significant difference was found in the next item in this group of statements (see table 7.2.18).

Table 7.2.18

Differences among teachers in agreement with statement C.1.6: School as an institution may compensate for the negative effects of a potential disadvantaged family background.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	272	3.2096	.7515	12.6428	.0004*
	male:	200	3.4600	.7624		

Male teachers seemed more optimistic about the compensatory potential of school than

females. They agreed significantly more with the above statement than female teachers.

Gender differences were also found in the last item of the present group of statements.

Table 7.2.19

Differences among teachers in agreement with statement C.1.7: 'It is part of teachers' work to help more children who come from disadvantaged family backgrounds.'						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	272	4.0441	.7814	4.8487	.0282* (.0219*)
	male:	200	4.2000	.7298		

(In brackets, significance of Kruskal-Wallis 1-way ANOVA)

As table 7.2.19 shows, male teachers were significantly more dedicated in helping children who came from disadvantaged family backgrounds.

7.2.2.2. Language

The first item in this group of statements investigated teachers' views on the relationship between family background and pupils' linguistic level (see table 7.2.20).

Table 7.2.20

Differences among teachers in agreement with statement C.2.1: Pupils' linguistic ability is determined by his/her family background						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Geographical area teaching in	urban	383	3.8903	.6620	4.1994	.0410* (.0133*)
	non-urban	89	3.7303	.6702		

(In brackets, significance of Kruskal-Wallis 1-way ANOVA)

Teachers teaching in urban areas at the time of the study appeared to agree significantly more with this statement than those who worked in non-urban areas.

No significant differences were found among groups of participants with different demographic characteristics in the mean levels of agreement with the statement ‘Linguistic ability is related to higher attainment in oral tasks.’

However, teachers’ agreement with the statement that linguistic ability is related with higher attainment in written tasks differs with regard to the geographical areas where they were teaching at the time of the study (see table 7.2.21).

Table 7.2.21

Differences among teachers in agreement with statement C.2.3: Linguistic ability is related with higher attainment in written tasks.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Geographical area teaching in	urban	383	3.6606	.7655	4.8100	.0288*
	non-urban	89	3.4607	.8126		

Teachers teaching in urban areas at the time of the study appeared to agree significantly more with the statement that linguistic ability is related with higher attainment in written tasks, than teachers teaching in non-urban areas.

The next 5 items investigated factors which teachers believe may improve pupils’ linguistic level.

No significant differences were found when the groups of teachers with different demographic characteristics were compared in relation to the item, ‘The linguistic ability of pupils can be improved through school’.

One significant difference was found between groups, levels of agreement with the statement that the linguistic ability of pupils may improve through reading (see table 7.2.22).

Table 7.2.22

Differences among teachers in agreement with statement C.2.4.c: The linguistic ability of pupils may improve through reading						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Year groups chiefly taught</i>	first 3:	224	4.6027	.5257	4.3363	.0136* (.0268*)
	last 3	212	4.4481	.6174		
	all:	36	4.4167	.7700		

(In brackets, significance of Kruskal-Wallis 1-way ANOVA)

A post hoc analysis (Tukey's b) demonstrated that teachers who had worked longer with the three youngest year groups tended to agree significantly more with this statement than those who had worked longer with the three oldest year groups.

Two factors appeared to differentiate participants mean levels of agreement with the statement that linguistic ability may improve through interaction with adults.

Table 7.2.23

Differences among teachers in agreement with statement C.2.4.d: The linguistic ability of pupils may improve through interaction with adults						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Overall Experience</i>	0-9yrs:	149	3.9530	.6910	4.1369	.0065* (.0124*)
	10-19yrs:	198	4.0253	.6641		
	20-29yrs:	94	3.7234	.7952		
	30+yrs	31	4.0323	.7063		
<i>Geographical area teaching in</i>	urban	383	3.9739	.6821	3.9194	.0483* (.1668)
	non-urban	89	3.8090	.8101		

(In brackets, significance of Kruskal-Wallis 1-way ANOVA)

The levels of agreement of the first two groups including the less experienced (0-9 and 10-19 years) teachers differ significantly from the third group (20-29 years of experience). It seems therefore that less experienced teachers appreciate child-adult interaction as means of improving of linguistic ability significantly more than more experienced ones. Also, child-

adult interaction is appreciated significantly more by teachers teaching in urban areas at the time of the study than teachers teaching in non-urban areas.

No significant differences were found among different groups of participants' levels of agreement with the statement 'Linguistic ability of pupils may improve through interaction with peers'.

The last item in this group of statements examined teachers' opinions on whether television may improve children's linguistic ability. One significant difference was found.

Table 7.2.24

Differences among teachers in agreement with statement C.2.4.b:						
The linguistic ability of pupils may improve through television						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
INSET	yes	183	2.8306	.9658	4.9273	.0269* (.0210*)
	no	289	2.6298	.9527		

(In brackets, significance of Kruskal-Wallis 1-way ANOVA)

Teachers who had participated in INSET appeared to appreciate significantly more the effect of television on improving children's linguistic ability than those who had not.

7.2.2.3. Intelligence

One significant difference was found in in this group of statements related to intelligence; this is the only difference found.

Table 7.2.25

Differences among teachers in agreement with statement C.3.1						
In the class there are pupils with different intelligence						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	272	4.3309	.6201	3.9114	.0485* (.0421*)
	male:	200	4.2150	.6410		

(In brackets, significance of Kruskal-Wallis 1-way ANOVA)

Female teachers appeared to believe significantly more in the existence of differences in intelligence among pupils than males, as their mean levels of agreement with the above statement is significantly higher than that of the male teachers.

No significant differences were found among groups of participants' mean levels of agreement with the remaining statements in this group:

Differences in intelligence can be seen:

'In the ease of learning';

'In the speed of learning';

'In the quality of learning. (Critical thinking, connection of new to previous knowledge, search for reasons why something happens)';

'In the questions asked by the pupil';

'In out-of-school activities';

'Differences in intelligence are related to differences in attainment.

7.2.2.4. Motivation

No significant differences were found among different groups of participants' responses to the first two statements concerning motivation:

'Pupils who make an effort attain more.'

'Pupils who themselves set aims for their future attain more'

One significant difference was found however, in the statement that pupils who show interest attain more (see table 7.2.26).

Table 7.2.26

Differences among teachers in agreement with statement C.4.2: Pupils who show interest attain more.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Geographical area teaching in	urban	383	4.1018	.5629	6.7630	.0096*
	non-urban	89	3.9213	.6945		

Table 7.2.26 shows that there is a significant difference between teachers who were teaching in urban areas at the time of the study and those who were teaching in non-urban areas. Teachers who worked in urban areas agreed significantly more that the pupils who show interest attain more.

Table 7.2.27

Differences among teachers in agreement with statement C.4.5: High grades motivate pupils to work harder.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Year group currently teaching	first 3:	229	3.2052	.7235	3.9422	.0477*
	last 3:	243	3.3374	.7225		

Teachers working with the three youngest year groups at the time of the study expressed a significantly lower mean levels of agreement with the statement that high grades motivate pupils to works harder, than teachers who were teaching the three oldest year groups (see table 2.2.27) .

No differences were found between different groups' mean levels of agreement with the statements:

‘ Low grades motivate pupils to work harder.’

‘ Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.’

Two differences were found in the mean levels of different groups’ agreement with the last statement in this group that pupils whose parents set aims for their future attain more (see table 7.2.28).

Table 7.2.28

Differences among teachers in agreement with statement C.4.4: Pupils whose parents set aims for their future attain more.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Overall Experience	0-9yrs:	149	2.6443	.7976	3.0734	.0275*
	10-19yrs:	198	2.8030	.8589		
	20-29yrs:	94	2.9468	.8721		
	30+yrs	31	2.9677	.7951		
Geographical area teaching in	urban	383	2.8355	.8417	5.3526	.0211*
	non-urban	89	2.6067	.8342		

A post hoc analysis (Tukey’s b) showed that there is a significant difference, between the first group of teachers (0-9 years of experience) and the third (20-29). It seems that the more experienced teachers believed more in the motivating effects of family expectancies than the younger teachers. Similarly, teachers teaching in urban areas at the time of the study tended to believe more in the motivating effects of family expectancies than those in non-urban areas.

7.2.3. Non-academic factors affecting grading

7.2.3.1. Family

Experience appeared to be the differentiating factor for participants’ mean levels of agreement

with the items examining the direct influence of family on grading. It seems that the more experienced (and older) the teachers, the more likely they were to give higher than attainment grades to pupils because of family factors (see table 7.2.29).

Table 7.2.29

Differences among teachers in agreement with statement D.1.1: I will assign grades higher than their attainment to pupils whose parents show interest in their children's progress.						
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F	
<i>Overall Experience</i>	0-9yrs:	149	2.0671	.7228	3.9362	.0086*
	10-19yrs:	198	2.2222	.7941		
	20-29yrs:	94	2.3723	.7758		
	30+yrs	31	2.4194	.7199		

A significant difference exists between the first group of teachers (0-9 years of experience) and the third (20-29 years). The older teachers tend significantly more than younger teachers to give grades higher than their attainment to pupils whose parents show interest in their progress.

Experience as well as geographical area of work at the time of the study differentiated participants' mean levels of agreement with the statement that they had been asked by friends or relatives to assign higher grades than their attainment to some pupils.

Table 7.2.30

Differences among teachers in agreement with statement D.1.2: I have been asked by friends, relatives etc to assign grades higher than their attainment to some pupils.						
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F	
<i>Overall Experience</i>	0-9yrs:	149	1.8121	.9399	7.6138	.0001*
	10-19yrs:	198	2.1414	1.0759		
	20-29yrs:	94	2.1064	.9095		
	30+yrs	31	2.6774	.9087		

Geographical area teaching in	urban	383	2.0157	.9920	4.9966	.0259*
	non-urban	89	2.2809	1.0765		

The post hoc analysis (Tukey's b) showed that there was a significant difference between the fourth group (30+ years of experience and the other groups, as well as a significant difference between the first and the second groups. It seems that the more experienced teachers had been asked to give grades higher than their attainment to children of friends, relatives etc as had teachers teaching in non-urban areas at the time of the study in comparison with those who were teaching in urban areas.

Experience again, plus gender and education this time, appeared to have accounted for the differences in participants' levels agreement with the statement that teachers had assigned at least once higher than attainment grades to children of friends relatives etc (see table 7.2.31).

Table 7.2.31

Differences among teachers in agreement with statement D.1.3: I have assigned at least once higher than attainment grades to children of friends relatives, etc.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	272	1.8199	.9256	4.3316	.0380*
	male:	200	2.0100	1.0514		
Overall Experience	0-9yrs:	149	1.6040	.8448	12.0785	.0000*
	10-19yrs:	198	1.8737	.9394		
	20-29yrs:	94	2.2979	1.1055		
	30+yrs	31	2.2903	1.0064		
Education	academy:	396	1.9444	.9921	4.9605	.0264*
	higher	76	1.6711	.9149		

Female teachers disagreed significantly more than males with this statement. Female teachers would seem to be fairer than males. As for experience, the mean levels of agreement of the least experienced teachers (0-9 years) appeared to be significantly lower than the others. Teachers with 10 -19 years of experience appeared to have a significantly lower mean level

of agreement than teachers with 20-29 years of experience. It seems that the less experienced the teachers, the fairer they were. Teachers with education higher than Academy also appeared to have expressed significantly lower mean levels of agreement than those with an Academy certificate.

Experience and education again appeared to account for the differentiation in the mean levels of agreement with the last item in this group of statements, ‘I have assigned grades higher than their attainment to children of eminent families in the community’ (see table 7.2.32).

Table 7.2.32

Differences among teachers in agreement with statement D.1.4: I have assigned grades higher than their attainment to children of eminent families in the community (heads of local authorities, upper civil servants etc)						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Overall Experience</i>	0-9yrs:	149	1.4564	.6826	8.5141	.0000*
	10-19yrs:	198	1.7172	.8435		
	20-29yrs:	94	1.9255	.8828		
	30+yrs	31	2.0000	.8165		
<i>Education</i>	academy:	396	1.7374	.8490	6.6440	.0103*
	higher	76	1.4737	.6213		

A post hoc analysis (Tukey’s b) showed that the mean levels of agreement of the group of less experienced teachers was significantly lower than all the others. This means that the less experienced teachers appeared to be less likely than the others to have assigned higher grades to children of eminent families in the community. This also applied to as teachers with education higher than Academy.

7.2.3.2. Language

No significant differences were found on the first two statements relating to language: ‘At the end of term I will assign grades higher than their attainment to pupils with a special

linguistic ability.’

A written examination entry (in a non-language subject) expressed with correct language will get a higher grade than an entry containing the same information expressed with linguistic mistakes.

One significant difference was found, however, in different groups’ agreement with the last statement, ‘an oral examination entry (in a non language subject) will be assessed more favourably when the pupil has a special linguistic ability’ (see table 7.2.33).

Table 7.2.33

Differences among teachers in agreement with statement D.2.3: An oral examination entry (in a non language subject) will be assessed more favourably when the pupil has a special linguistic ability.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Education	academy:	370	3.6757	.8083	5.0546	.0251*
	higher	75	3.4400	.9189		

Teachers with an academy certificate appeared to assess the oral examinations of pupils with a special linguistic ability more favourably, than teachers who had a higher degree. Thus, teachers with higher than academy certificates appeared less biased by linguistic ability in oral examinations than teachers with academy certificates.

7.2.3.3. Intelligence

No differences were found for the statement examining the direct influence of intelligence on grading:

‘At the end of term I will assign grades higher than their attainment to pupils that I consider to be clever.’

7.2.3.4. Motivation

No differences were found in different groups of participants’ agreement with the first

statement in this group:

I will assign grades higher than their attainment to pupils because they try hard.

One difference was found however regarding the second statement ‘I will assign grades higher than their attainment to pupils because they show interest in some subjects’(see table 7.2.34).

Table 7.2.34

Differences among teachers in agreement with statement D.4.2: I will assign grades higher than their attainment to pupils because they show interest in some subjects.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Geographical area teaching in</i>	urban	383	3.1906	.8937	8.6645	.0034*
	non-urban	89	2.8764	.9632		

Teachers teaching in urban areas at the time of the study expressed a significantly higher level of agreement with this statement than those teaching in non-urban areas. It seems therefore that interest is significantly more rewarded with higher grades by teachers who work in urban areas than those who work in non-urban areas.

No significant differences were found on the last item of this group of statements:

‘I will assign grades higher than their attainment to pupils because they have set aims for their futures’.

7.2.3.5. Behaviour

No differences regarding the first statement in this group were found:

‘I will assign grades lower than their attainment to pupils with disruptive behaviour.’

One difference was found however on the second statement in this group ‘ I will assign grades higher than their attainment or pupils with disciplined behaviour’ (see table 7.2.35).

Table 7.2.35

Differences among teachers in agreement with statement D.5.2: I will assign grades higher than their attainment to pupils with disciplined behaviour.						
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F	
<i>Overall Experience</i>	0-9yrs:	149	2.5436	.8581	3.7956	.0104*
	10-19yrs:	198	2.7071	.8928		
	20-29yrs:	94	2.8723	.9971		
	30+yrs	31	3.0000	.8165		

A post hoc analysis (Tukey's b) showed that the only significant difference was between the first and the third groups. Teachers with 0-9 years of experience expressed a significantly lower mean level of agreement with the above statement than teachers with 20-29 years of experience. It seems therefore that the more experienced teachers reward disciplined behaviour with high grades significantly more than less experienced teachers.

No differences were found on the last item in this group of statements:
'Low attainment results in disruptive behaviour.'

7.2.3.6. Personal likes

One significant difference was found concerning the first item of this group, 'willingly or not I like some pupils more than other' (see table 7.2.36).

Table 7.2.36

Differences among teachers in agreement with statement D.5.1: Willingly or not, I like some pupils more than other						
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F	
<i>Year groups chiefly taught</i>	first 3:	224	3.3884	.9593	6.5083	.0016*
	last 3	212	3.1462	1.0631		
	all:	36	2.8056	1.1419		

The post hoc analysis (Tukey's b) demonstrated that the mean levels of agreement with the above statement of teachers who had worked with the three youngest year groups for longer, is significantly different from the other two. Teachers who had worked more with the three youngest year groups, have significantly more personal likes than those who have worked longer with the other three or with all year groups.

No significant differences were found in participants' mean levels of agreement with the following statements:

'Personal likes are created by taking into account:

The behaviour of the pupil.

The character of the pupil'.

Two significant differences were found, however, in different groups of teachers' mean levels of agreement with the statement, 'personal likes are created by taking into account the attainment of the pupil' (see table 7.2.37).

Table 7.2.37

Differences among teachers in agreement with statement D.6.1.d:						
Personal likes are created by taking into account:						
The attainment of the pupil.						
Differentiating Factor(s)	N	Mean	Std Dev	F Ratio	Sig of F	
Overall Experience	0-9yrs:	85	3.3647	1.0673	5.1422	.0018*
	10-19yrs:	96	3.5625	.8803		
	20-29yrs:	50	3.8600	.8084		
	30+yrs	18	4.1111	.4714		
Year groups chiefly taught	first 3:	132	3.5303	.9841	4.8197	.0088*
	last 3	103	3.7573	.7855		
	all:	14	3.0000	1.2403		

A post hoc analysis (Tukey's b) of overall experience showed that significant differences existed between the first and the last two groups of teachers. That is, teachers with 0-9 years of experience liked some pupils because of their attainment significantly less than teachers with 20-29 and 30+ years of experience.

A post hoc analysis (Tukey's b) of the year groups which teachers had taught longer in the past showed that the significant difference was between the second and the third group. Teachers who have worked longer with the three oldest year groups in the past liked some pupils because of their attainment significantly more than teachers who had worked with all year groups in the past.

One significant difference was found regarding personal likes and the appearance of pupils (see table 7.2.38):

Table 7.2.38

Differences among teachers in agreement with statement D.6.1.a:						
Personal likes are created by taking into account: The appearance of the pupil.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Education</i>	academy:	212	2.5236	1.0278	5.0886	.0250*
	higher	37	2.9459	1.1772		

Teachers who have a higher than academy certificate seemed to take the appearance of the pupil significantly more into account than teachers who have an academy certificate.

The last factor perceived to influence personal likes was the family of the pupil. Experience appeared to account for the differences in participants' mean levels of agreement with the statement concerning this (see table 7.2.39)

Table 7.2.39

Differences among teachers in agreement with statement D.6.1.c:						
Personal likes are created by taking into account: The family of the pupil.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F

<i>Overall Experience</i>	0-9yrs:	85	2.0941	.9338	4.0957	.0073*
	10-19yrs:	96	2.5313	.9171		
	20-29yrs:	50	2.4000	.8806		
	30+yrs	18	2.6667	1.0847		

A post hoc analysis (Tukey's b) showed that only one significant difference existed. Teachers with 0-9 years of experience expressed a significantly lower level of agreement with the above statement than teachers with 10-19 years of experience. The less experienced teachers appeared to show the greater disagreement that the family of the child would affect their liking for pupils.

There was a significant difference between male and female teachers in the extent to which personal likes were felt to influence grade assignment (see table 7.2.40).

Table 7.2.40

Differences among teachers in agreement with statement D.6.2: Personal likes affect me willingly or not, to a greater or to a lesser degree in grade assigning.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Gender</i>	female:	153	2.7712	.9967	7.4273	.0069*
	male:	96	3.1250	.9974		

Male teachers appeared to be significantly more affected in grading than female.

7.2.3.7. Differential attainment in different subjects

No differences were found for the first item of this group:

'Pupils' attainment is different in different subjects.'

Table 7.2.41

Differences among teachers in agreement with statement D.7.2: High attainment in some subjects affects in a positive way my grading in the others.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F

<i>Overall Experience</i>	0-9yrs:	130	2.7077	.9103	3.2581	.0216*
	10-19yrs:	172	2.9302	.9086		
	20-29yrs:	84	2.9643	.9111		
	30+yrs	28	3.2143	.8325		

Teachers with 0-9 years of experience agreed significantly less with the statement that high attainment in some subjects affects in a positive way their grading in the others, than teachers with 30+ years of experience (see table 7.2.41). The more experienced teachers are more affected in a positive way by high attainment in other subjects.

No differences were found for the last item of this group of statements, 'low attainment in some subjects affects in a negative way my grading in others'.

7.2.3.8. Pupils' awareness of attainment

No significant differences among different groups were found for participants' agreement with the first statement in this group, 'pupils are aware of their attainment in relation to others.'

Two significant differences appeared in relation to the second statement, 'pupils awareness of attainment is taken into account when they are graded' (see table 7.2.42).

Table 7.2.42

Differences among teachers in agreement with statement D.8.2: Pupils' awareness of attainment is taken into account when are graded. (I will not give low grades to those who are considered 'high achievers' nor high to 'low achievers' in order not to disturb the sense of justice of the classroom.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Gender</i>	female:	238	2.9412	1.0457	19.0483	.0000*
	male:	172	3.4012	1.0633		

<i>Overall Experience</i>	0-9yrs:	128	2.8281	1.1091	7.9319	.0000*
	10-19yrs:	168	3.1548	.9909		
	20-29yrs:	85	3.3529	1.1202		
	30+yrs	29	3.7241	.8822		

Male teachers agreed significantly more with this statement than females. The sense of fairness in the class seemed to affect male teachers' grading significantly more than females'.

A post hoc analysis (Tukey's b) related to overall experience of teachers showed that the first group differed significantly from the others, and that the second differed significantly from the third. The younger and less experienced teachers take pupils' awareness of attainment significantly less into account when grading than older and more experienced ones.

7.2.3.9 Local factors

No differences were found for the first item of this group.

'My grading is relative to certain school factors and shows similarities and differences within the particular class. (The same grade may mean totally different things in another class of another school).'

Two differences appeared regarding the second statement 'my grades take a different value and meaning according to the educational level of the pupils of the class (see table 7.2.43).

Table 7.2.43

Differences among teachers in agreement with statement D.9.1.a:						
My grades take a different meaning and value according to:						
The educational level of the pupils of the class.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Gender</i>	female:	210	4.0667	.5039	4.3699	.0373*
	male:	166	3.9518	.5593		

Geographical area teaching in	urban	304	4.0428	.5279	4.0724	.0443*
	non-urban	72	3.9028	.5350		

Female teachers appeared to describe their grades as significantly more dependent on the educational level of the class than male. Also, teachers teaching in urban areas at the time of the study expressed a significantly higher level of agreement with the above statement than those teaching in non-urban areas.

No significant differences were found for the statement, 'my grades take a different meaning and value according to: The social background of the majority of pupils.'

Two significant differences were found relating to the relationship between grades and geographical area (see table 7.2.44).

Table 7.2.44

Differences among teachers in agreement with statement D.9.1.c:						
My grades take a different meaning and value according to:						
The geographical area where the school is situated.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
Gender	female:	210	3.5571	.8410	7.0972	.0081*
	male:	166	3.3072	.9765		
Year group currently teaching	first 3:	187	3.5561	.8556	5.4274	.0204*
	last 3:	189	3.3386	.9518		

Female teachers expressed significantly higher mean levels of agreement with the statement than male. Their grades seemed significantly more influenced by the geographical area where the school was situated than males. Also, teachers teaching the three youngest year groups at the time of the study appeared to agree significantly more with the above statement.

7.2.3.10 Teachers' ideas about assessment

Table 7.2.45

Differences among teachers in agreement with statement D.10.1: Grading should not take place in the primary school						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>Education</i>	academy:	396	2.4015	1.0202	7.7455	.0056*
	higher	76	2.0526	.8929		

Teachers with an Academy certificate agreed significantly more than those with higher degrees that grading should not take place in the primary school (see table 7.2.45). Teachers with higher degree are more pro-grading than those with an Academy certificate.

Table 7.2.46

Differences among teachers in agreement with statement D.10.2: The grading scale should be numerical in all year groups so that the differences among pupils are more evident.						
Differentiating Factor(s)		N	Mean	Std Dev	F Ratio	Sig of F
<i>INSET</i>	yes	183	2.6831	1.1426	4.3453	.0377*
	no	289	2.9204	1.2433		

Teachers who had not attended an INSET course appeared to express a significantly higher level of agreement that grading should be numerical in all year groups than those who had done so (see 7.2.46). Teachers who have attended an INSET course appeared more in favour of the current grading system.

The last item of the questionnaire asked teachers whether they thought that other teachers grade in the same way as them. No differences were found between the level of agreement of different sub-groups.

7.2.4. Summative presentation of gender and experience differences

Participants' demographic characteristics appeared to account for a number of differences in the mean levels of agreement with several statements. The most frequent differences appeared between male and female and between the groups of teachers with different lengths of experience.

7.2.4.1. Gender Differences

Table 7.2.47

Significant gender differences in the agreements with statements in section B						
Statement	sub-groups	N	Mean	S.D.	F Ratio	Sig.
When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests.	female:	272	2.1912	.7341	8.3019	.0041*
	male:	200	2.4100	.9144		
Tests, formal and informal only contribute to the overall picture of the pupil	female:	272	4.2059	.7301	6.1253	.0137*
	male:	200	4.0250	.8532		
Classroom participation is one of the most important criteria that I take into account for final grading	female:	272	3.7316	.8136	5.4584	.0199*
	male:	200	3.9100	.8278		
I do not take classroom participation into account because it is biased against shy and withdrawn pupils.	female:	272	2.5956	.7575	6.0025	.0146*
	male:	200	2.4200	.7853		
Classroom participation only contributes to the overall picture of the pupil.	female:	272	3.8272	.8304	6.0277	.0144*
	male:	200	3.6300	.9040		
Homework should not be given. All of the work should take place at school.	female:	272	2.2500	1.025	11.900	.0006*
	male:	200	2.5800	1.029		

As table 7.2.47 shows, female teachers appeared to take formal ministry tests less into account than male, but took more account of teacher made tests. They also reported more than males that tests only contribute to the overall picture of the pupil. They also seemed to take classroom participation less into account than males; believe more than males that doing so is biased against shy and withdrawn pupils, and they see classroom participation more as an

contributor to the overall picture of the pupil. Finally, they appear to be more pro-homework than males. Overall, female teachers appear to assess the academic attainment of pupils according to the overall picture of the pupil more than male teachers, and they base their assessments on objective criteria like tests and homework, while they are less influenced by the more subjectively interpreted criterion of assessment of academic attainment, namely classroom participation. The opposite applies to male teachers.

Table 7.2.48

Significant gender differences in agreements with statements in section C						
Statement	sub-groups	N	MEAN	S.D.	F Ratio	Sig.
The higher the educational level of the family the higher the attainment of their children.	female:	272	3.7206	.7359	11.483	.0008*
	male:	200	3.9500	.7142		
'The higher the financial level of the family the higher their children' attainment.	female:	272	2.6176	.7972	7.7348	.0056*
	male:	200	2.8250	.8047		
School as an institution may compensate for the potential negative effects of a disadvantaged family background.	female:	272	3.2096	.7515	12.642	.0004*
	male:	200	3.4600	.7624		
It is part of teachers' work to help more children who come from disadvantaged family backgrounds.	female:	272	4.0441	.7814	4.8487	.0282*
	male:	200	4.2000	.7298		
In the class there are pupils with different intelligence	female:	272	4.3309	.6201	3.9114	.0485*
	male:	200	4.2150	.6410		

In the second part of the questionnaire (see table 7.2.48), female teachers appeared to believe less than males in the effect of family background on attainment, believing less than male teachers that both the educational and the financial level of the family are related to the attainment of the pupils. They were also differences regarding the compensatory effects of school on children coming from disadvantaged family backgrounds. Female teachers appeared to believe less that school as an institution can compensate for a disadvantaged background; but they believed more than male teachers that it is part of teachers' work to give more help to pupils from disadvantaged family backgrounds. Finally they believe more than males that there are differences in intelligence among pupils.

Table 7.2.49

Significant gender differences in agreement with statements in section D						
Statement	sub-groups	N	Mean	S.D.	F Ratio	Sig.
I have assigned at least once higher than attainment grades to children of friends, relatives, etc.	female:	272	1.8199	.9256	4.3316	.0380*
	male:	200	2.0100	1.051		
Personal likes affect me willingly or not, to a greater or to a lesser degree in grade assigning.	female:	153	2.7712	.9967	7.4273	.0069*
	male:	96	3.1250	.9974		
Pupils' awareness of attainment is taken into account when they are graded. (I will not give low grades to those who are considered 'high achievers' nor high to 'low achievers', in order not to disturb the sense of justice of the classroom.	female:	238	2.9412	1.045	19.048	.0000*
	male:	172	3.4012	1.063		
My grades take a different meaning and value according to: The educational level of the pupils of the class.	female:	210	4.0667	.5039	4.3699	.0373*
	male:	166	3.9518	.5593		
My grades take a different meaning and value according to: The geographical area where the school is situated.	female:	210	3.5571	.8410	7.0972	.0081*
	male:	166	3.3072	.9765		

In the last part of the questionnaire (see table 7.2.49), the differences between the two genders are more consistent. Female teachers appeared to be less willing to give higher than attainment grades than males. Their responses show that they do not give higher than attainment grades to the children of friends, relatives etc, they were less affected by personal likes in grade assigning, and they did not seem to take account of pupils' awareness of their own attainment in relation to others when grading. On the other hand, they seemed to be grading by adopting a more normative approach than males since their grades have a relative value more affected by the educational level of the class and the geographical area where the school is situated. The opposite applies for male teachers. There are problems in interpreting these gender differences as the female teachers predominate in teaching the younger year groups. This is clearly a confounding factor. These differences will be discussed in the final chapter.

7.2.4.2. Experience Differences

The second demographic characteristic that accounted for differences in a large number of

statements was teachers' length of experience. Significant differences in the mean levels of agreement with many statements appeared among teachers grouped by length of experience. These are presented in the following tables.

Table 7.2.50

Significant differences according to experience in agreements with statements in section B						
Statements	Sub-groups	N	Mean	S.D.	F ratio	Sig.
I do not take formal ministry tests into account because pupils may know the answers in advance	0-9yrs:	92	3.7065	1.0847	5.3346	.0014*
	10-19yrs:	136	3.6250	.9423		
	20-29yrs:	57	3.1579	.9781		
	30+yrs	17	3.0588	.8993		
When I assign grades the main source of information are the tests I devise myself	0-9yrs:	149	3.3154	1.0206	2.8536	.0369*
	10-19yrs:	198	3.0606	.9593		
	20-29yrs:	94	3.0106	.9332		
	30+yrs	31	2.9677	1.0483		
Tests, formal and informal only contribute to the overall picture of the pupil	0-9yrs:	149	4.3154	.7892	4.1795	.0062*
	10-19yrs:	198	4.0404	.7663		
	20-29yrs:	94	4.0638	.7004		
	30+yrs	31	4.0000	1.0328		
Homework should not be given. All of the work should take place at school.	0-9yrs:	149	1.0290	.9353	6.8133	.0002*
	10-19yrs:	198	2.3434	1.0291		
	20-29yrs:	94	2.6915	1.0679		
	30+yrs	31	2.8065	1.1950		
When I assign grades I take into account diligence as it appears through homework preparation.	0-9yrs:	149	2.9799	1.0684	4.4901	.0040*
	10-19yrs:	198	2.8838	1.0431		
	20-29yrs:	94	2.5957	.8465		
	30+yrs	31	2.4516	.8099		

Significant differences according to experience in agreements with statements in section B						
Homework preparation only contributes to the overall picture of the pupil	0-9yrs:	149	3.8926	.7723	3.2635	.0213*
	10-19yrs:	198	3.7929	.7353		
	20-29yrs:	94	3.9468	.7089		
	30+yrs	31	3.4839	1.1216		

Younger teachers, as shown in table 7.2.50, appeared to be more dismissive than older teachers of formal ministry testing due to the fact that the responses might be known by the pupils in advance. They also appeared to be more in favour of teacher-made tests, and expressed stronger agreement than older teachers with the statement saying that formal and informal tests contributed to the overall picture of the pupil. Younger teachers also appeared more consistently pro-homework than older teachers. They thought more than older teachers that homework should be given and that not all work should be done at school. They took pupils diligence as it appears through homework preparation into account for the assessment of academic attainment more than older teachers, and they regarded homework as a contributor to the overall picture of the academic attainment of the pupil more than older teachers did.

Table 7.2.51

Significant differences according to experience in agreement with statements in section C						
Statements	Sub-groups	N	Mean	S.D.	F ratio	Sig.
The psychological environment in which a pupil lives affects his/her attainment	0-9yrs:	149	4.6242	.5387	3.6719	.0123*
	10-19yrs:	198	4.5000	.5587		
	20-29yrs:	94	4.4787	.6175		
	30+yrs	31	4.2903	.5287		

Significant differences according to experience in agreement with statements in section C						
Factors that affect the psychological condition of the pupil: Divorce	0-9yrs:	148	4.4459	.5980	4.3520	.0049*
	10-19yrs:	198	4.2576	.6976		
	20-29yrs:	94	4.2553	.7751		
	30+yrs	30	4.0000	.9097		
Factors that affect the psychological condition of the pupil: Death of a parent.	0-9yrs:	148	4.5473	.5754	5.2248	.0015*
	10-19yrs:	198	4.4596	.6419		
	20-29yrs:	94	4.2553	.8912		
	30+yrs	30	4.1333	.9371		
(The higher the educational level of the family the higher the attainment of the pupil because:) 'Uneducated parents do not provide enough educational material for their children'	0-9yrs:	99	2.3838	.8655	3.3934	.0182*
	10-19yrs:	148	2.3378	.8456		
	20-29yrs:	70	2.6714	.9124		
	30+yrs	23	2.7391	.8643		
The linguistic ability of pupils may improve through interaction with adults	0-9yrs:	149	3.9530	.6910	4.1369	.0065*
	10-19yrs:	198	4.0253	.6641		
	20-29yrs:	94	3.7234	.7952		
	30+yrs	31	4.0323	.7063		
Pupils whose parents set aims for their future attain more.	0-9yrs:	149	2.6443	.7976	3.0734	.0275*
	10-19yrs:	198	2.8030	.8589		
	20-29yrs:	94	2.9468	.8721		
	30+yrs	31	2.9677	.7951		

Younger teachers, as shown in table 7.2.51, appeared to be more sensitive to the psychological factors which affect attainment. They believed more than older teachers that the psychological environment in which a pupil lives has an effect on pupils' attainment, and that factors like divorce and the death of a parent affect the psychological function of the pupil which may impact on attainment. Older teachers also believed more in the motivating effects of parental expectancies than younger ones.

Table 7.2.52

Significant experience differences in agreement with statements in section D						
Statement	Sub-groups	N	Mean	S.D.	F ratio	Sig.

Significant experience differences in agreement with statements in section D						
I will assign grades higher than their attainment to pupils whose parents show interest in their children's progress.	0-9yrs:	14 9	2.0671	.7228	3.9362	.0086*
	10-19yrs:	19 8	2.2222	.7941		
	20-29yrs:	94	2.3723	.7758		
	30+yrs	31	2.4194	.7199		
I have been asked by friends, relatives etc to assign grades higher than their attainment to some pupils.	0-9yrs:	14 9	1.8121	.9399	7.6138	.0001*
	10-19yrs:	19 8	2.1414	1.0759		
	20-29yrs:	94	2.1064	.9095		
	30+yrs	31	2.6774	.9087		
'I have assigned at least once grades higher than attainment to children of friends, relatives, etc.'	0-9yrs:	14 9	1.6040	.8448	12.078	.0000*
	10-19yrs:	19 8	1.8737	.9394		
	20-29yrs:	94	2.2979	1.1055		
	30+yrs	31	2.2903	1.0064		
I have assigned grades higher than their attainment to children of eminent families of the community (heads of local authorities, upper civil servants etc)	0-9yrs:	14 9	1.4564	.6826	8.5141	.0000*
	10-19yrs:	19 8	1.7172	.8435		
	20-29yrs:	94	1.9255	.8828		
	30+yrs	31	2.0000	.8165		
I will assign grades higher than their attainment to pupils with disciplined behaviour	0-9yrs:	14 9	2.5436	.8581	3.7956	.0104*
	10-19yrs:	19 8	2.7071	.8928		
	20-29yrs:	94	2.8723	.9971		
	30+yrs	31	3.0000	.8165		
Personal likes are created by taking into account: The attainment of the pupil.	0-9yrs:	85	3.3647	1.0673	5.1422	.0018*
	10-19yrs:	96	3.5625	.8803		
	20-29yrs:	50	3.8600	.8084		
	30+yrs	18	4.1111	.4714		

Significant experience differences in agreement with statements in section D						
Personal likes are created by taking into account: The family of the pupil.	0-9yrs:	85	2.0941	.9338	4.0957	.0073*
	10-19yrs:	96	2.5313	.9171		
	20-29yrs:	50	2.4000	.8806		
	30+yrs	18	2.6667	1.0847		
'High attainment in some subjects affects in a positive way my grading in others.'	0-9yrs:	130	2.7077	.9103	3.2581	.0216*
	10-19yrs:	172	2.9302	.9086		
	20-29yrs:	84	2.9643	.9111		
	30+yrs	28	3.2143	.8325		
Pupils' awareness of attainment is taken into account when they are graded. (I will not give low grades to those who are considered 'high achievers' nor high to 'low achievers' in order not to disturb the sense of justice in the class.	0-9yrs:	128	2.8281	1.1091	7.9319	.0000*
	10-19yrs:	168	3.1548	.9909		
	20-29yrs:	85	3.3529	1.1202		
	30+yrs	29	3.7241	.8822		

In the last part of the questionnaire (see table 7.2.52), the differences between older and younger teachers are consistently similar. As shown in the above tables, older teachers appeared to be influenced significantly more by non-academic factors in assigning grades higher than the academic attainment of pupils. Family interest, friendships, family status, behaviour, personal likes, differential attainment and pupils' awareness of their own attainment in relation to others appeared to affect older teachers' grading more than that of younger teachers. This will be discussed further in the final chapter.

7.2.4.3. Cluster Analysis

A cluster analysis which might have revealed 'types' of teachers' grading practices could not be undertaken with the available statistical programming packages because of the large size of the sample. An attempt was made to cluster randomly selected cases. This did not produce any interpretable clusters. One major cluster appeared which included the majority of cases,

with only one or two cases composing the second and third clusters (see appendix, table 3.1). The analysis therefore focussed on grouping variables rather than teachers through factor analysis.

CHAPTER 7.3

QUESTIONNAIRE ANALYSIS AND RESULTS: THE FACTORS UNDERLYING TEACHERS' GRADING

'What are creativity, love and altruism? Unlike variables such as weight, blood pressure, and temperature, they cannot be measured on a scale, sphygmometer, or thermometer, in units of pounds, millimetres of mercury, or degrees Fahrenheit. Instead, they can be thought as unifying constructs or labels that characterise responses to related groups of variables... Factor analysis is a statistical technique used to identify a relatively smaller number of factors that can be used to represent relationships among sets of many interrelated variables' (Norusis, 1994). 'Because of its power, elegance and closeness to the core of scientific purpose, factor analysis can be called the queen of analytic methods... Factor analysis serves the cause of scientific parsimony. It reduces the multiplicity of test and measures to greater simplicity. It tells us in effect, what tests or measures belong together -which ones virtually measure the same thing in other words and how much they do so.... A factor is a construct, a hypothetical entity, a latent variable, that is assumed to underlie test, scales, items and indeed measures of almost any kind' (Kerlinger, 1986).

Because of its function of reducing data, and revealing underlying constructs, factor analysis has often been used in the literature on teacher grading. Factor analysis was used to reveal the 'underlying dimensions of grading criteria' (Nava & Loyd, 1992). In this study, until now, each of the items has been examined separately, and comparisons between them and between participants with different demographic characteristics have been made. However, the investigation would be incomplete if the covariance between teachers' responses was not examined. To achieve this, a factor analysis was undertaken.

The method of factor extraction chosen was principal components analysis, because it produces uncorrelated factors. According to Norusis (1994) in principal component analysis linear combinations of the observed variables are formed. The first principal component is the combination that accounts for the largest amount of variance in the sample. The second principal component account for the next largest amount of variance and it is uncorrelated with the first. Successive components explain progressively smaller portions of the total

sample variance, and all are uncorrelated with each other. The purpose of the present factor analysis is to reveal any underlying constructs which affect teachers' grading independently from each other, in other words to identify clear factors which per se affect teachers' grading and not factors which may show the same as others. The principal component method of factor extraction serves this purpose because it produces orthogonal factors.

The nature of the study was essentially exploratory, and the questionnaire was designed to serve this purpose. The initial analysis considered all the items in the questionnaire and produced 27 non interpretable factors (see appendix table 4.1 for a full presentation). This suggested that a re-consideration of the analysis was necessary. First, each of the three sections was factor analysed separately, as each of the sections was considered to be independent to each other. Not all of the questions were included in the analysis, since some of the questions were sub-questions, and others were of a different nature to the rest of the questions in the particular section. The reasons for the inclusion or the exclusion of the questions from the analysis will be discussed in the process of the presentation of the results of the analysis.

7.3.1. Factor analysis of Section B: Academic factors affecting grading

In this section the questions included in the analysis were those which directly asked teachers to mark the degree of influence of each of the academic factors to their final grading. The sub-questions asking for the reasons why they did not take particular factors into account were omitted as well as one questions investigating teachers' opinions on whether homework should be given or not (see table 7.3.1).

Table 7.3.1

Questions included in the analysis	Questions omitted from the analysis.
When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests.	I do not take them into account because they only represent the ability of the pupil to memorise

Questions included in the analysis	Questions omitted from the analysis.
	I do not take them into account because pupils may know the answers in advance
When I assign grades the main source of information are the tests I devise myself	
Tests, formal and informal only contribute to the overall picture of the pupil	
Classroom participation is one of the most important criteria that I take into account for final grading	
I do not take it into account because it is biased against shy and withdrawn pupils.	
Classroom participation only contributes to the overall picture of the pupil.	
	Homework should not be given. All of the work should take place at school.
When I assign grades I take into account diligence as it appears through homework preparation.	
Homework preparation only contributes to the overall picture of the pupil	

An initial non rotated factor analysis did not produce any interpretable factors. Therefore a factor rotation was attempted. According to Norusis (1994) since one of the goals of factor analysis is to identify factors that are substantively meaningful (in the that sense they summarise sets of closely related variables) the rotation phase of factor analysis attempts to transform the initial matrix into one that is easier to interpret. Furthermore, Kerlinger (1986) argues that the original factor matrices are arbitrary in the sense that an infinite number of reference frames (axes) can be found to reproduce any given R matrix. The principal factor matrix and its loadings account for the common factor variance of the test scores, but they do not in general provide scientifically meaningful structures. It is the configurations of tests or variables in the factor space that are of fundamental concern. In order to discover these configurations adequately, the arbitrary reference axes must be rotated. In other words, we assume that there are unique and 'best' positions for the axes, 'best' ways to view the variances in n-dimensional space.

The most commonly used method for orthogonal rotation is the varimax method, which attempts to minimise the number of variables that have high loadings on a factor. This should enhance the interpretability of factors (Norusis, 1994). A factor analysis with a varimax

rotation of the above variables produced 4 factors with eigenvalue above 1 which accounted for 63.5% of the variance (see table 7.3.2). The correlations between the analysed variables are presented in appendix, table 4.2.

Table 7.3.2
Factor analysis of section B

Variables	Factor 1	Factor 2	Factor 3	Factor 4
	Eigenvalue 1.59549	Eigenvalue 1.33266	Eigenvalue 1.14734	Eigenvalue 1.01790
	% of var. explained 19.9	% of var. explained 16.7	% of var. explained 14.3	% of var. explained 12.7
Homework preparation only contributes to the overall picture of the pupil.	.73205			
Classroom participation only contributes to the overall picture of the pupil.	.68893			
Tests, formal and informal only contribute to the overall picture of the pupil.	.60502			
I do not take it into account because it is biased against shy and withdrawn pupils.		-.8277		
Classroom participation is one of the most important criteria that I take into account for final grading.		.76733		
When I assign grades the main source of information are the tests I devise myself.			.76478	
When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests.			.72983	
When I assign grades I take into account diligence as it appears through homework preparation.				.95084

Absolute values less than .5 are not presented.

As seen in the table 7.2.2 the three variables which load on the first factor are the ones which state that each of the three measures of academic attainment only contribute to the overall picture of the pupil according to which grades are assigned at the end of term or the school year.

The second factor has a positive loading from the variable mentioning that classroom participation is one of the most important criteria for final grading and a negative loading from

the variable stating exactly the opposite, namely that classroom participation is not taken into account because it is biased against shy and withdrawn children.

The third factor has positive loadings from the variables concerned with testing, both official and teacher made.

The fourth factor includes only one variable, that concerned with diligence as represented by the completion of homework as a criterion for grading.

Factor analysis of the first section of the questionnaire confirmed the interview finding that the academic factors that affect grading are first of all the overall picture of the pupils, tests, classroom participation and diligence as revealed through homework.

7.3.2. Factor analysis of Section C: Factors affecting academic attainment

The same procedure was followed for the section of the questionnaire which examined teachers' opinions on the factors that influence pupils' attainment. Again, the sub-questions as well as the items asking for the influence of factors on attainment indirectly were omitted (see table 7.3.3).

Table 7.3.3

Questions included in the analysis	Questions omitted from the analysis.
The material environment (good or bad living conditions) affects pupils' attainment.	
The psychological environment in which a pupil lives affects his/her attainment.	Factors that affect the psychological condition of the pupil: Divorce, Family discord, Death of a parent, Relationships with friends.
Cooperation between parents and teachers results in pupils' higher attainment.	This happens because: a. Parents who are interested in their children's progress help them more. b. Pupils who are aware of the cooperation between their parents and teachers tend to work harder.

Questions included in the analysis	Questions omitted from the analysis.
The higher the educational level of the family the higher the attainment of their children.	This happens because: a. Non educated parents have a negative predisposition towards school. b. Non educated parents do not provide enough educational material to their children.
The higher the financial level of the family the higher their children' attainment.	School as an institution may compensate for the negative effects of a potential disadvantaged family background.
	It is part of teachers work to help more children who come from disadvantaged family backgrounds.
	Pupils' linguistic ability is determined by his/her family background
Linguistic ability is related with higher attainment in oral tasks	The linguistic ability of pupils may improve through a. School, b. Television, c. Reading, d. Interaction with adults, e. Interaction with peers.
Linguistic ability is related with higher attainment in written tasks.	
	In the class there are pupils with different intelligence
	Differences in intelligence can be seen a. In the ease of learning, b. In the speed of learning, c. In the quality of learning d .In the questions asked by the pupil, e. In out-of-school activities.
Differences in intelligence are related to differences in attainment.	
Pupils who make an effort attain higher.	
Pupils who show interest attain higher.	
Pupils who themselves set aims for their future attain higher.	
Pupils whose parents set aims for their future attain higher.	
High grades motivate pupils to work harder.	
Low grades motivate pupils to work harder.	
Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.	

Table 7.3.4 shows the 4 factors extracted from the factor analysis using varimax rotation. Factors with Eigenvalue of less than one were omitted. (The correlations between the variables of this section which were factor-analysed are presented in the appendix, table 4.3)

Table 7.3.4
Factor analysis of section C

Variables	Factor 1	Factor 2	Factor 3	Factor 4
	Eigenvalue 2.92098	Eigenvalue 1.78164	Eigenvalue 1.38975	Eigenvalue 1.15647
	% of var. explained 19.5	% of var. explained 11.9	% of var. explained 9.3	% of var. explained 7.7
Pupils who show interest attain higher	.82060			
Pupils who themselves set aims for their future attain higher.	.66591			
Pupils who make an effort attain higher.	.64530			
Differences in intelligence are related to differences in attainment.	(.48255)			
Pupils whose parents set aims for their future attain higher.		.65802		
Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.		.63772		
Low grades motivate pupils to work harder.		.59659		
High grades motivate pupils to work harder.		.57754		
The material environment (good or bad living conditions) affects pupils' attainment.			.78044	
Cooperation between parents and teachers results in pupils' higher attainment.			.77036	
The psychological environment in which a pupil lives affects his/her attainment.			.54597	
Linguistic ability is related with higher attainment in oral tasks.				.63731
The higher the financial level of the family the higher their children' attainment.				.59209
Linguistic ability is related with higher attainment in written tasks.				.57400
The higher the educational level of the family the higher the attainment of their children.				.56422

Absolute values less than .4 are not presented.

As shown in the table 7.3.4 four factors with eigenvalue over 1 which account for 48.3% of the variance were extracted. The first factor with the higher eigenvalue (2.92) which explains the relatively higher percentage of the variance (19.5%) has loadings on the three variables

concerned with the intrinsic motivation of pupils. According to teachers the most important factor for pupils attainment is the intrinsic motivation of pupils. Also, this factor has moderate weighting on the statement which relates intelligence and attainment. It seems therefore that intrinsic motivation and intelligence are according to teachers related.

The second factor with an eigenvalue of 1.78 which explains 11.9% of the variance, has loadings on the statements which consider the extrinsic motivation of the child in relation to attainment. Aims set by the family for the child, rewards and punishments by the family, low grades and high grades were the extrinsic motives examined in the questionnaire. Teachers therefore appear to believe that another factor affecting pupil attainment is extrinsic motivation.

The third factor has loadings on the statements concerned with the way the family provides material and psychological support. It is also correlated with the statement relating parents' cooperation with the teacher and attainment. This function suggests that Greek teachers believe that pupil attainment is influenced by the provision by the family of material and psychological support which includes parental interest in the child's progress expressed by their cooperation with the teacher.

The fourth factor initially appears more difficult to interpret. It includes two statements concerned with the financial and the educational level of family of the pupil and their relationships with attainment, and two statements concerned with the linguistic ability of the pupil and its relationship with attainment in oral and written tasks. However, it was shown earlier that the great majority of teachers believe that the family is mainly responsible for the linguistic level of the pupil. In this respect, taking into account the correlations of all four variables with this factor, the fourth factor seems to reflect the effect of family status on pupils' attainment. It seems that teachers believe that the educational and financial levels of the family and the linguistic ability of the pupil, which is in turn largely determined by the family, produces a factor that affects pupils attainment in both oral and written tasks.

7.3.3. Factor Analysis of section D: Non academic factors affecting grading

The last section of the questionnaire examined the effect of non academic factors on grading. The analysis took place in the same way as in the previous two sections. The statements included in the analysis were the ones directly asking whether teachers would give higher (or lower) grades to pupils due to non academic factors. The sub-questions and asking for opinion were omitted. (See table 7.3.5)

Table 7.3.5

Questions included in the analysis	Questions omitted from the analysis.
I will assign higher than their attainment grades to pupils whose parents show interest in their children's progress.	
	I have been asked by friends, relatives etc to assign higher than their attainment grades to some pupils.
I have assigned even once higher than attainment grades to children of friends relatives, etc.	
I have assigned higher than their attainment grades to children of eminent families of the community (heads of local authorities, upper civil servants etc).	
At the end of term I will assign higher than their attainment grades to pupils with a special linguistic ability	
A written examination (in a non language subject) expressed with correct language will get a higher grade than an examination containing the same information expressed with linguistic mistakes.	
An oral examination (in a non language subject) will be assessed more favourably when the pupil has a special linguistic ability.	
At the end of term I will assign higher than their attainment grades to pupils that I consider to be clever.	
I will assign higher than their attainment to pupils because they try hard.	
I will assign higher than their attainment grades to pupils because they show interest in some subjects.	
I will assign higher than their attainment grades to pupils because they have set aims for their futures.	
I will assign lower than their attainment grades to pupils with disruptive behaviour.	
I will assign higher than their attainment grades to pupils with disciplined behaviour.	Low attainment results in disruptive behaviour.

Questions included in the analysis	Questions omitted from the analysis.
	Willingly or not, I like some pupils more than other.
Personal likes affect me willingly or not, to a greater or to a lesser degree in grade assigning.	Personal likes are created by taking into account: a. The appearance of the pupil, b. The character of the pupil, c. The family of the pupil, d. The attainment of the pupil, e. The behaviour of the pupil.
	Pupils' attainment is different in different subjects
High attainment in some subjects affects in a positive way my grading in the others.	
Low attainment in some subjects affects in a negative way my grading in others.	
Pupils' awareness of attainment is taken into account when are graded. (I will not give low grades to those who are considered 'high achievers' nor high to 'low achievers' in order not to disturb the sense of justice of the classroom.	Pupils' are aware of their attainment in relation to others.
My grades take a different meaning and value according to: a. The educational level of the pupils of the class.	My grading is relevant to certain factors and shows similarities and differences within the particular class. (The same grade may mean totally different things in another class of another school.
b. The social background of the majority of pupils.	
d. The geographical area where the school is situated.	
	Grading should not take place in the primary school
	The grading scale should be numerical so the differences among pupils are more evident.
	Other teachers assess in the same way as me.

A principal component analysis with varimax rotation of the above statements produced the following 6 factors.(The correlations between the variables of this section which were factor-analysed are presented in the appendix, table 4.4)

Table 7.3.6
Factor analysis of section D

Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
	Eigenvalue 3.61468	Eigenvalue 2.22526	Eigenvalue 1.64616	Eigenvalue 1.48086	Eigenvalue 1.27522	Eigenvalue 1.15807
	% of var. explained 19.4	% of var. explained 11.8	% of var. explained 8.8	% of var. explained 8.2	% of var. explained 7.6	% of var. explained 6.2
My grades take a different meaning and value according to: The social background of the majority of pupils	.86161					

Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
	Eigenvalue 3.61468	Eigenvalue 2.22526	Eigenvalue 1.64616	Eigenvalue 1.48086	Eigenvalue 1.27522	Eigenvalue 1.15807
	% of var. explained 19.4	% of var. explained 11.8	% of var. explained 8.8	% of var. explained 8.2	% of var. explained 7.6	% of var. explained 6.2
The geographical area where the school is situated	.81654					
The educational level of the pupils of the class.	.74634					
I will assign higher than their attainment to pupils because they try hard.						
I have assigned even once higher than attainment grades to children of friends relatives, etc.		.86962				
I have assigned higher than their attainment grades to children of eminent families of the community (heads of local authorities, upper civil servants etc).		.84761				
I will assign higher than their attainment grades to pupils whose parents show interest in their children's progress.		.56579				
Personal likes affect me willingly or not, to a greater or to a lesser degree in grade assigning.		(.47903)				
Low attainment in some subjects affects in a negative way my grading in others.			.84532			
High attainment in some subjects affects in a positive way my grading in the others.			.80374			
At the end of term I will assign higher than their attainment grades to pupils that I consider to be clever.			(.45935)			
I will assign lower than their attainment grades to pupils with disruptive behaviour.				.81957		
I will assign higher than their attainment grades to pupils with disciplined behaviour.				.77333		
Pupils' awareness of attainment is taken into account when are graded. (I will not give low grades to those who are considered 'high achievers' nor high to 'low achievers' in order not to disturb the sense of justice of the classroom).				.57206		
An oral examination (in a non language subject) will be assessed more favourably when the pupil has a special linguistic ability.					.77578	

Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
	Eigenvalue 3.61468	Eigenvalue 2.22526	Eigenvalue 1.64616	Eigenvalue 1.48086	Eigenvalue 1.27522	Eigenvalue 1.15807
	% of var. explained 19.4	% of var. explained 11.8	% of var. explained 8.8	% of var. explained 8.2	% of var. explained 7.6	% of var. explained 6.2
A written examination (in a non language subject) expressed with correct language will get a higher grade than an examination containing the same information expressed with linguistic mistakes.					.75327	
At the end of term I will assign higher than their attainment grades to pupils with a special linguistic ability.					.57043	
I will assign higher than their attainment grades to pupils because they show interest in some subjects.						.82636
I will assign higher than their attainment grades to pupils because they have set aims for their futures.						.76971

Absolute values less than .4 are not presented.

As shown in the table 7.3.6, 6 factors with eigenvalues over 1, which cumulatively accounted for 62% of the variance were extracted. To a great extent they confirm the interview findings of the categorisation of the non academic factors that affect grading.

The first factor has its highest loadings from the variables investigating the effect of school factors on attainment. The factor analysis showed in accordance with the interviews, that the social background of the majority of pupils, their educational level, and the geographical area where the school is situated, produced a factor that accounts for the greatest percentage of variance. As mentioned before, these three variables represent the normative aspect of grading in the Greek primary school. Teachers claimed that higher grades are given to the highest achievers in their classes reflecting the relative aspect of their achievement. That is, the relatively higher achiever in a class in a school situated in a remote area, where the majority of pupils come from educationally disadvantaged social backgrounds, with a consequent low educational level, will get the highest possible grade, although a pupil with similar attainment in another school might be assigned a moderate grade. The factor analysis demonstrated that normative assessment is important in grade assignment.

The second factor consists of the variables related to the family of the pupils. The

relationships between the parents of the pupils and teachers, the social status of the family of the pupils and the interest that parents show in their children's academic progress together form a factor. However, teachers' levels of agreement with the statements concerned with direct influences of family on grading were very low. This factor seems to reflect the perceived low direct effect of family on grading. A lower weighting on the variable related to personal likes and grading is also part of this factor. Influences related to family and to likes of individual pupils seem to be related in their comparatively lower effect on grading.

The third factor consists of the two variables examining the role of relevance of attainment in subjects and grading. Higher attainment in some subjects and lower attainment in other subjects seems to affect grading in the rest of the subjects. The third variable loaded on this factor is concerned with intelligence and grading. If a pupil has high attainment in some subjects, and the pupil is considered clever by the teacher, s/he is likely to get grades higher than his/her attainment to other subjects where his/her attainment is not that high. If a pupil is considered not that clever, although s/he may have high attainment in some subjects, s/he is likely to be assigned lower grades. This seems to reflect an underlying assumption that there is a 'general' intelligence among teachers.

Behaviour is the fourth factor affecting grading. The two variables considering this issue load together on one factor. Behaviour appears to affect grading beyond attainment, in a positive way for disciplined pupils and in a negative way for disruptive pupils. The variable examining the influence of pupils' self perceptions on grading is also moderately correlated with this factor. Of course, behaviour may be an aspect of pupil characteristics which pupils themselves see as relating to achievement and grading.

The fifth factor has loading on the variables concerned with the linguistic ability of the pupil. The interview finding that pupils' linguistic ability not only has an indirect influence on grades but also direct is confirmed. High linguistic ability seems to affect teachers in giving higher than attainment grades.

Intrinsic motivation is the sixth and last factor that appears to affect grading beyond

attainment. Pupils who show interest and pupils who seem to have set aims for their futures not only are likely to attain higher, but also teachers appear to be rewarding them by assigning higher grades.

Table 7.3.7

Factor analysis of sections B and D as a whole										
Variables	Fact.	Fact.	Fact.	Fact.	Fact.	Fact.	Fact.	Fact.	Fact.	Fact.
	1	2	3	4	5	6	7	8	9	10
	Eig.	Eig.	Eig.	Eig.	Eig.	Eig.	Eig.	Eig.	Eig.	Eig.
	3.72	2.55	1.90	1.70	1.59	1.39	1.32	1.21	1.14	1.02
	% of var. expl.	% of var. expl.	% of var. expl.	% of var. expl.	% of var. expl.	% of var. expl.	% of var. expl.	% of var. expl.	% of var. expl.	% of var. expl.
	13.8	9.5	7.1	6.3	5.9	5.2	4.9	4.5	4.2	3.8
My grades take a different meaning and value according to: D.9.1.b. The social background of the majority of pupils.	.853									
D.9.1.c. The geographical area where the school is situated.	.810									
D.9.1.a. The educational level of the pupils of the class.	.725									
D.4.1. I will assign grades higher than their attainment to pupils because they try hard.	.422									
D.1.4. I have assigned grades higher than their attainment to children of eminent families in the community (heads of local authorities, upper civil servants etc).		.869								
D.1.2. I have been asked by friends, relatives etc to assign grades higher than their attainment to some pupils.		.825								
D.1.1. I assign grades higher than their attainment to pupils whose parents show interest in their children's progress.		.476								
D.6.2. Personal likes affect me willingly or not, to a greater or to a lesser degree in assigning grades.										
D.2.2. A written examination entry (in a non-language subject) expressed in correct language will get a higher grade than an examination entry containing the same information expressed with linguistic mistakes.			.740							
D.2.3. An oral examination entry (in a non-language subject) will be assessed more favourably when the pupil has a special linguistic ability.			.733							
D.2.1. At the end of term I assign grades higher than their attainment to pupils with a special linguistic ability.			.615							
B.1.2. When I assign grades the main source of information is the tests I devise myself.										
D.7.3. Low attainment in some subjects affects in a negative way my grading in others.				.833						

Factor analysis of sections B and D as a whole										
Variables	Fact. 1	Fact. 2	Fact. 3	Fact. 4	Fact. 5	Fact. 6	Fact. 7	Fact. 8	Fact. 9	Fact. 10
D.7.2. High attainment in some subjects affects in a positive way my grading in others.				.774						
D.3.1. At the end of term I will assign grades higher than their attainment to pupils that I consider to be clever.				.467						
D 5.1. I will assign lower grades than their attainment to pupils with disruptive behaviour.					.819					
D 5.2. I will assign higher grades than their attainment to pupils with disciplined behaviour.					.777					
D.8.2. Pupils' awareness of attainment is taken into account when they are graded. (I will not give low grades to those who are considered 'high achievers' nor high to 'low achievers' in order not to disturb the sense of justice of the class.					.532					
D.4.2. I will assign grades higher than their attainment to pupils because they show interest in some subjects.						.773				
D.4.3. I will assign grades higher than their attainment to pupils because they have set aims for their futures.						.763				
B.1.1. When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests.							.737			
B.1.3. Tests, formal and informal, only contribute to the overall picture of the pupil.							-.684			
B.2.2. I do not take classroom participation into account because it is biased against shy and withdrawn pupils.								-.727		
B.2.1. Classroom participation is one of the most important criteria that I take into account for final grading								.718		
B.2.3. Classroom participation only contributes to the overall picture of the pupil.									.751	
B.3.3. Homework preparation only contributes to the overall picture of the pupil									.722	
B.3.2. When I assign grades I take into account diligence as it appears through homework preparation.										.794

A overall factor analysis of the variables concerned with both the academic and the non academic variables (sections B and D of the questionnaire) produced the same factors as the separate analysis of each section (see table 7.3.7). There are some differences however in the

variables loading on each of the factors.

The first factor is 'school and class characteristics' and it is identical with the first factor of section D.

The second factor is 'family' and it is also identical with the second factor of section D.

The third factor "linguistic ability' and it is identical to the 5th factor of section D.

The fourth factor is 'differential attainment' and it is identical to the 3rd factor of section D.

The fifth factor is 'behaviour and it is identical to the 4th factor of section D.

The sixth factor is 'motivation' and it is identical to the 6th factor of section D.

The seventh factor is 'testing'. Here however the loadings differ. There is a negative loading on the variable 'Tests only contribute to the overall picture of the pupil' which is not interpretable.

The eighth factor is 'classroom participation and it is identical with the 2nd factor of section B.

The ninth factor is 'overall picture' and it is similar to the first factor of section B. The variable 'Tests only contribute to the overall picture of the pupil' is missing and loads on factor 7.

Finally the tenth factor is 'homework' which is identical to factor 4 of section B.

This factor analysis of sections B and D of the questionnaire as a whole supports the findings reported earlier.

7.3.4. Summary

The factor analyses of the three sections of the questionnaire in essence confirm the findings of the interview study. Those finding were summarised in an initial attempt to create a model of Greek primary school grading. After the factor analyses this model is only slightly changed. The factors that affect Greek primary school teachers' grading according to the results of the factor analysis are illustrated in the model in figure 7.1.

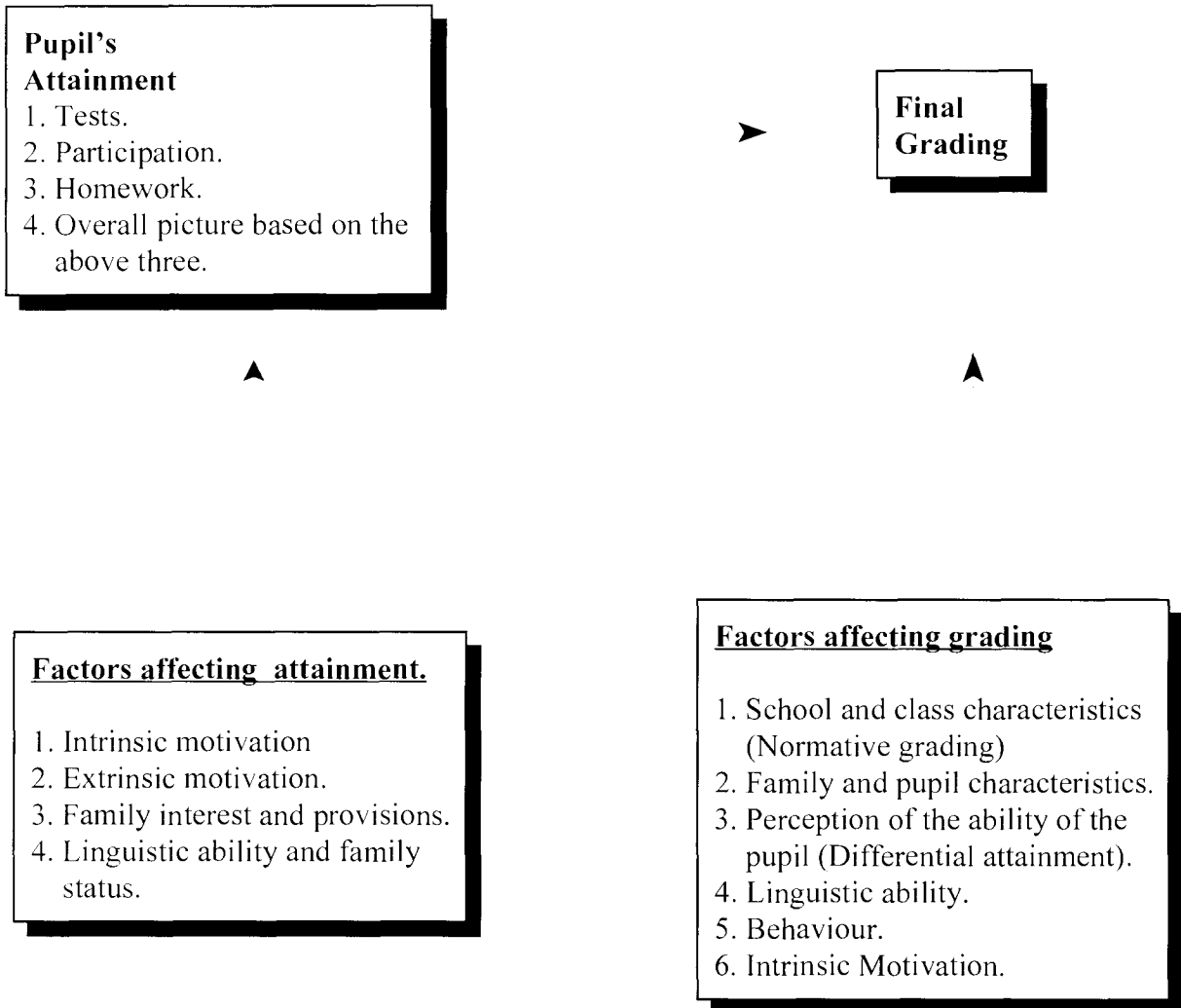


Figure 7.1
Factors affecting attainment and grading according to factor analysis

CHAPTER 8: DISCUSSION

GENERAL

Earlier research had revealed very little about the nature of grading in the Greek primary school. The results of this study have contributed to our understanding of this issue.

Before proceeding with the discussion of findings separately, it is important to stress that the study is based on teachers' descriptions of their grading practices. It is not an objective assessment of what they do in practice. They may think that they assign grades in certain ways while in fact their practice may differ. There is also the possibility that their descriptions reflect to some extent 'social desirability'. However, care was taken to ensure high validity in the responses.

The literature review provided the basis for the initial interviews; these raised many possible factors affecting grading, and the questionnaire enabled these to be further explored with a large sample of teachers. The relationship between the questionnaire and the interview data suggests high validity for the questionnaire. Participants completing the questionnaire were likely to do so because the issues were relevant to them. This may also explain the high test-retest reliability and the low number of questionnaires which could not be analysed. The relatively small percentage of returned questionnaires may have been because of the length of the questionnaire. Replication of the study with a shorter version of the questionnaire would provide further evidence of generalisability.

Both the qualitative and the quantitative analysis produced similar results. The models derived from the qualitative categorisation of the grading factors mentioned in the interviews, and from the factor analysis of the questionnaires have only minor differences. The different tools of investigation did not produce very different results; they represented the reality of teachers' grading through different means, although as the questionnaire was based on the interview data this was to be expected.

The study attempted to identify the many grading criteria adopted by different teachers in order to formulate a comprehensive idea of how grading in the Greek primary school takes place, although it cannot be claimed that all the factors that influence grading have been recorded and investigated. The model that emerged from the analysis of the interviews and was later confirmed by the questionnaire data showed that Greek teachers assign grades according initially to their perception of the academic attainment of pupils. However a number of other factors are also influential, making the final grade higher or lower than perceived academic attainment. Also, a number of factors which are perceived by teachers to influence the attainment of the child, influence the final grading given, although in a different way.

The major finding is that Greek primary school teachers do not assign grades according to single factors which have a pre-specified influence on grades. They do not assess separately attainment on tests, oral examinations, homework, classroom participation, effort, behaviour etc, and calculate an average. They develop an overall picture of pupils, based on those factors, and they base their grading on that picture. The relative weight that is placed on each of those factors differs for different pupils and between groups of teachers. As shown, there was unanimity of response in only a minority of questions. In general, different teachers appeared to be affected to a different degree by different factors in the development of their overall picture of pupils. Thus, Cizek's finding that teachers' grading practices vary widely and unpredictably (Cizek & Fitzgerald, 1995) is strongly supported by this study.

In the rest of this section, the relative contribution of each of the factors and the reasons for these, will be discussed to provide a better understanding of Greek primary school teachers' grading criteria and practices.

8.1. ASSESSMENT OF PUPILS' ACADEMIC ATTAINMENT

8.1.1. Testing

Testing in general did not appear to affect grade assignment to a great extent for the majority of teachers. Tests only contributed to the overall picture of the academic performance of the pupils, according to 87.1% of the teachers in the sample. Tests are supposed to be the most objective form of assessment, since pupils' performance in them can be measured in a relatively impartial way. Greek primary school teachers however restrict their importance. Tests only contribute to the overall picture of the academic attainment of the pupil.

Only 7% expressed agreement or strong agreement with the statement affirming the effect of formal testing on the final grades of pupils. The main reason for this is that pupils may know the answers to the tests in advance, since the test questions and answers are accessible to the pupils. The other reason given was that formal testing reflects only rote learning by the pupils. However, the decree regulating assessment in the primary school (Decree, 1995) indicates that formal test results should be one of the main factors in assessment. Since at least some pupils may have access to the tests in advance of their examination, the validity of such tests is diminished and teachers do not trust their results. The law cannot be fairly implemented under the present conditions.

Teacher-made tests, in contrast to formal ones, are considered as more valid by the teachers since pupils do not know the answers in advance. Teachers appeared to take more account of them in grading more. Nevertheless, a high percentage, almost one in four, did not appear to take them into account. Almost 25% of the sample demonstrated a completely negative attitude towards testing in general. Although no explanations for this were provided in the questionnaire, in the interviews it appeared that the reason for not taking tests into account at all is that performance in a test presupposes preparation for the test at home. Since some children may have family problems, or other reasons (e.g. illiterate families) why they cannot prepare at home and therefore perform well in tests, these teachers do not take them into account. The social sensitivity of Greek primary school teachers emerged repeatedly in this

study. This might be explained with regard to their social origin. As described in chapter 3, the great majority of teachers come from the most disadvantaged social classes. Thus, they may express sympathetic attitudes towards children from the same classes.

To summarise, teachers in the present study appear to hold a negative attitude towards testing. This finding confirms the work of Philippou & Christou (1997) who also found negative attitudes in Greek primary school teachers towards testing. This is in direct contrast to the results reported in the United States by Stiggins & Bridgeford (1985). Philippou & Christou (1997), attributed this discrepancy to the lack of commercial tests in Greece, while in this study it seems that Greek primary school teachers do not take into account formal ministry tests because pupils may know the answers in advance or because such tests are perceived as socially unfair. This suggests that teachers' attitudes to testing can only be understood within the particular context within which they find themselves.

8.1.2. Classroom participation

Classroom participation -perhaps the most subjective indication of the academic attainment of the pupil -was found to be the most important academic criterion affecting final grading. Teachers described it as having a strong direct influence on their grading. They did not consider it as biased against shy and withdrawn pupils. In the interviews they claimed that they could recognise the pupils that did not participate due to personality characteristics, and those who did not participate due to indifference. They appeared confident in assessing academic performance based on subjective criteria used in personal observation of classroom participation, and in rejecting more objective ways of assessment, like tests. Classroom participation was reported to be second in order of importance of pupil traits assessed by the teacher in the study carried out by Mavromatis (1995). Also Bellas (1995) refers to many classroom participation behaviours as characteristics of the 'good pupil'. Philippou & Christou (1997) reported that 99% of the teachers of their sample appeared to take into account classroom participation for assessment of mathematics and science. This finding therefore is consistent with the findings of other Greek studies. Classroom participation has

also been reported to be a criterion for grade assignment in non-Greek studies eg (Cizek, 1996; Nava & Loyd, 1992; Wood, 1990). Teachers in general therefore consider classroom participation as one of the most important factors affecting their grading.

The importance that teachers place on classroom participation can be interpreted with regard to the form of assessment that it presupposes. Assessment of classroom participation -unlike tests- takes place through formative assessment. Teachers provoke participation by asking questions, assigning short exercises or raising issues for discussion. If a pupil does not respond, or responds wrongly, then the teacher provides feedback to the response. A pupil who repeatedly requires feedback, expressing difficulties in understanding the taught material, may be graded lower than a pupil who does not. It seems therefore that formative assessment, although primarily serving motivating and diagnostic purposes, is also used by the teachers for summative purposes, at least in educational systems where a summative grade is assigned at the end of term.

8.1.3. Homework

Homework is the third factor which indicates the academic attainment of pupils. Homework preparation is the most socially related criterion, since pupils who come from uneducated families are less likely to prepare homework. This is particularly true in Greece, where there is a tendency for Greek teachers to give pupils a lot of homework (Eurydice, 1985). Homework was abolished in the mid-eighties by the socialist government for being socially unjust. Some teachers gave the same reason for not giving work to be done at home. The first question related to homework examined teachers' beliefs on the necessity of homework. The majority of teachers disagreed that homework should not be given, but they also disagreed that they take it into account for grading. It seems therefore that Greek teachers believe that homework helps children in learning, but diligence as it appears through homework preparation is not taken into account in grading by the majority of teachers. The reason given for this in the interviews was that teachers do not know if pupils do their homework themselves or whether their parents do it for them. The interviews also revealed that school

grades have an important social value, at least among parents of children of the same age. This has been mentioned in a number of reports about education in Greece, eg, (OECD, 1997; Kallen, 1996). Some parents believe that their children get higher grades if they go to school with their homework done - this is the case for a minority of teachers- and therefore they do their children's homework. The majority of teachers on the other hand, because they are aware of this, do not take homework into account. However, more than one in four of the present sample (28.2%) expressed the opinion that they would reward in grading diligence as it appears through homework preparation. Parents therefore are reinforced in operating in such a way by a large percentage of teachers (almost one in three) who appear to be affected in their grading by homework preparation.

8.1.4. Differences among teachers with regard to their demographic characteristics

8.1.4.1. Gender differences

As shown earlier, female teachers take formal ministry tests less into account than male, but take more account of teacher-made tests. They believe more than males that tests only contribute to the overall picture of the pupil. They also seemed to take classroom participation less into account than males; they believed more than males that doing so is biased against shy and withdrawn pupils. They see classroom participation more as a contributor to the overall picture of the pupil. Finally, they appeared more pro-homework than males.

However, these differences do not reveal a clear pattern of female vs male assessment of the academic attainment of pupils. In general, however, female teachers more than males see single criteria like formal ministry tests and participation as contributors to the overall academic picture of pupils and not as influencing their grading per se. Female teachers therefore can be characterised as more 'holistic' in the assessment of academic attainment than males. Also, they appear more sympathetic to shy and withdrawn children. This may explain why they do not take into account classroom participation as much as male teachers.

Interpretation of these findings on the basis of the evidence of the present studies is not possible. Research focussing particularly on gender differences in grading may highlight the reasons for such differences. There is also overlap between gender and the teaching of the lower three year groups which may have influenced the females' perceptions of influences on grading.

8.1.4.2. Experience differences

Younger teachers appear to be more dismissive than older teachers of formal ministry testing because they believe more that the responses can be known to the pupils in advance. They also appear to be more in favour of teacher-made tests, and expressed stronger agreement than older teachers that formal and informal tests contribute to the overall picture of the pupil. Younger teachers also appeared more consistently pro-homework than older teachers. Notably, they thought more than older teachers that homework should be given and that not all work should be done at school. They took pupils' diligence as it appears through homework preparation into account for the assessment of academic attainment more than older teachers. Finally, they regarded homework as a contributor to the overall picture of the academic attainment of the pupil more than older teachers did.

There is a clear difference in the assessment of the academic attainment of pupils between the younger and less experienced and the older and more experienced teachers. Younger teachers seem to be dismissive of the changes made in the early eighties by socialist governments. They do not take into account the formal ministry tests introduced then, -they only regard them as contributors to the overall academic picture of the pupil- and they appear not only to be pro-homework, but also to take into account for grading diligence as it appears through homework preparation, while in the eighties reforms homework was abolished. The eighties reforms were characterised as the introduction of progressive pedagogy in the primary school (Tsakalides, 1995). The questions that arise therefore and cannot be answered here are: is there a shift among younger teachers to more conservative pedagogical principles, or are they more pragmatic dismissing ideas that do not seem to them to be appropriate, regardless of

their ideological characterisation, like the abolition of homework, the central devising of tests etc?

8.1.4.3. Other differences

Teachers who chiefly taught the older three year groups appeared to take more account of formal ministry tests than those who taught the younger three age groups. They believed more strongly that tests contributed to the overall picture of the pupil. They dismissed more strongly the idea that taking participation into account is biased against shy and withdrawn pupils, and they were more pro homework than those who chiefly taught the younger three year groups.

Gipps, McCallum, & Brown (1996) in their study reported that the strong ideological views about what is appropriate (in both assessment and curriculum terms) for young children shift/soften to a rather more accepting view of the appropriateness of formal testing by age 11. This was attributed mainly to National Curriculum implementation, although the need for further research on assessment in different year groups was stressed. The findings of this study are similar, although in a different educational framework. The age of pupils that teachers have worked with longer seems to play a role in affecting the factors by which they assess the academic attainment of pupils. The differences mentioned above demonstrate that all three academic criteria -tests, participation, homework-, are taken into account more clearly and strictly by teachers who chiefly teach the three older year groups. Teachers reported in the interviews that older pupils are less likely to accept the absolute authority of teachers in grading, and therefore the criteria by which they are graded need to be clarified. Pupils of the older year groups, as described in the interviews, ask 'Why was I given this grade and not another?'. Thus, teachers who chiefly teach these year groups are more likely to base their assessment on clarified criteria than teachers who have chiefly taught the three youngest year groups, where the authority of the teacher is not disputed and grading can be more flexible. The attitudes of older pupils may also contribute to a further understanding of Gipps, McCallum, & Brown, (1996) findings.

The other differences identified are not consistent across the sub-groups. Thus, conclusions about the overall perceptions of influences on assessment of the academic attainment of pupils by other sub-groups of teachers cannot be drawn.

8.1.5. Factor analysis of criteria by which academic attainment is assessed

The factor analysis provided an overall framework within which to consider the assessment of the academic attainment of pupils. The first factor, which explained the larger percentage of the variance, was the overall picture of the academic attainment of the pupil. It seems that teachers construct an overall picture taking into account attainment in tests, classroom participation and diligence as it appears from homework preparation. This conception affects their final grading. However, the factors that make up the conception, namely classroom participation, tests, and homework preparation, seem also to be taken into account separately for final grading. The factors are orthogonal; they assess different things. How this might operate in practice is described below. Initially, the teacher develops an overall picture of the academic attainment of a pupil. But the teacher does not allocate the grade that describes the academic attainment of that pupil before s/he re-examines each of the three factors separately. The final grade may be increased if the pupil either has an exceptional performance in tests, participates actively, or is very diligent, or it might be lowered in the opposite cases. Greek primary school teachers seem to examine each of the factors in relation to the overall picture, giving weight to each, and finally they make their decisions on the grade that the pupil deserves for his/ her academic performance, which is not the final grade that will be assigned since other factors also influence the final decision, as will be discussed below.

8.2. FACTORS AFFECTING ATTAINMENT AND GRADING

8.2.1. Family

The material environment in which a pupil lives affects the attainment of the pupil, according to 91.5% of teachers of the sample. This teachers' belief is in accordance with the literature where there is a great deal of evidence showing that the material environment in which a pupil lives is related to his/her educational attainment eg (Douglas, 1964; Townsend, 1979; Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988). In the interviews, teachers described in detail the cases of pupils whose families were facing financial problems and how these problems affected their academic attainment. The psychological environment of the pupil also appeared to affect attainment, according to an even larger percentage of teachers. It is interesting that there is a significant difference between the mean levels of agreement with these two statements. Teachers appear to believe that the psychological environment in which a pupil lives is more important than the material. In fact, in the interviews teachers described cases of pupils whose attainment was very high although they came from a very poor environment. While teachers believe that the material environment is a very important factor for high attainment, they believe it is possible for pupils who come from poor families to reach high levels of attainment. This is in accordance with the widespread image in Greece of the underprivileged, poor pupils that, against all odds, succeed educationally; the frequency of hearing of such examples is smaller than the real number of these whose success is overstated to set a moral example (Fragoudaki, 1985). On the other hand, the psychological conditions in which a pupil lives are considered as a more important factor for attainment.

Divorce, family discord, death of a parent and relationships with friends were explored in relation to their perceived effects on the psychological condition of the pupil. There may be other factors which affect it, but these were chosen because they were mentioned in the interviews. The level of teachers' agreement with each showed that the factor perceived as most important is the death of a parent. This is followed by family discord, divorce, and finally relationships with friends. Discord is pictured as more important than divorce. This supports the claim of a teacher in the interviews, that divorce can be a solution to family problems, since according to his experience, pupils who live in families with problems tend to attain lower than those who live with one parent.

Cooperation between parents and teachers was perceived as an important factor for the

attainment of the child by a large percentage of teachers (79.7%). Teachers claimed in the interviews that if they see the parents of pupils regularly, they can explain how they expect them to help their children with their work in order to learn better and therefore attain higher. 17% took the middle position, which suggests that teachers perceive that cooperation helps, but that there are cases of pupils who may reach high levels of attainment, even if their parents do not cooperate with the teacher.

Teachers perceive that the more important reason why cooperation between parents and teachers results in higher attainment is that parents who show interest in their pupils progress help their children more (there was 94.1% agreement or strong agreement from teachers who answered this question). Here, cooperation is seen as an expression of the general interest that parents show in their children's progress. Parents are not only expected to visit the teacher regularly, but also to help their children in accordance with the instructions of the teacher. Teachers tell parents how they expect them to help their children's learning, which in effect raises the attainment of the pupil. Indirectly teachers here talk about homework and they claim that if homework is prepared according to the teachers' instructions, this raises the attainment of the pupil. In the interviews, teachers discussed in detail how they expect parents to help their children and it is clear from those extracts that parents' help is related to homework. Although, therefore, teachers appear to have on average a negative attitude towards taking into account homework preparation as a factor affecting assessment of academic attainment, their responses to this statement show that they must take it more into account than they think. When teachers were asked directly about homework they expressed a theoretical position probably affected by their social, philosophical or educational ideology. When the question is indirect a different picture, perhaps more characteristic of their practice, emerges.

A teacher had claimed in the interviews that if a pupil knows that his/her parents visit the teacher frequently s/he works harder and therefore attains higher. 76.9% of the sample of the questionnaire study agreed with this. Cooperation may operate through extrinsic motivation, wanting to please parents or fear of punishment. If parents find out that their child does not do at school what s/he is expected to, they are likely to punish him/her, or in the opposite case they are likely to praise him/her. In this way cooperation increases the possibility for harder

work. 19.4% took the middle position on this statement, perhaps implying that although this may happen, it is not a reason which adequately explains the effects of cooperation between parents and teachers on attainment.

A very high percentage of the teachers (72%) believed that the higher the educational level of the family the higher attainment of the pupils. This is in accordance with research findings in Greece that has shown that the impact of families' educational level is higher than that of their financial level (Tzani, 1983). However, almost one in four (23.7%) took the middle position, perhaps implying that although this is the rule, there are many exceptions. One teacher in the interviews described a high achiever who not only came from an uneducated family, but a family who could not speak Greek.

The most important perceived reason for the connection between academic attainment and the family's educational level was that educated parents provide more knowledge for their children and therefore helped them to reach higher levels of attainment. Teachers believe that pupils who have access to knowledge at home are more likely to attain higher than those who do not. In other words, assessment of the academic attainment of pupils takes place not only on the basis of the acquisition of knowledge through school, but on the extra knowledge which educated parents may provide as well. This may contribute to classroom participation, which is an important factor in grading. Although teachers believe that they control for social bias against pupils who come from disadvantaged backgrounds, unconsciously, by basing academic assessment on classroom participation where extra knowledge provided by educated families is more easily expressed, they may be indirectly affected by the social background of the pupil.

One teacher in the interviews claimed that pupils from uneducated families do not attain at a high level because uneducated parents do not provide educational material for their children. The questionnaire findings showed that the majority of teachers disagree with this. Teachers did not appear to believe that uneducated parents do not provide enough educational materials (books, educational games etc). They believed that school is an institution of high social status for uneducated parents, something which has repeatedly been mentioned in reports about

education in the Greek society, since education is seen as the primary avenue to occupational success (OECD, 1982; OECD, 1996; OECD, 1997).

As for the relationship between the family's financial level and pupils' attainment, it appears first of all that Greek teachers believe significantly more that the educational level of the family is related to attainment, rather than the financial status of the family. Rich parents are not necessarily educated. And since the main reason given for the relationship between educational level and attainment was access to knowledge that educated parents provide, this cannot be provided by rich parents who may be uneducated. However, it is more likely for a rich family to be educated than to be uneducated. Also, rich uneducated parents may provide access to knowledge by employing teachers for private lessons for their children, a very common practice in Greece (OECD, 1996; OECD, 1997). A large percentage of teachers took the middle position perhaps implying that the family's high financial level does not necessarily mean pupils' high attainment, although this is usually the case.

Most teachers expressed doubts about the compensatory effects of schooling for children from disadvantaged family backgrounds. In recent years, support classes have been introduced in the Greek primary school to help children with difficulties in some or all subjects. These classes tend to teach children with learning difficulties and children of minorities who cannot speak Greek. The large percentage of teachers taking the middle position regarding this statement may reflect the unknown effects of these classes. As no evidence is available for the effectiveness of these classes, it is hard for teachers to say whether school as an institution -and not the extra effort of particular teachers- can compensate for a disadvantaged background or not.

The vast majority (85.2%) of teachers believe that it is part of their work to provide particular support for children who come from disadvantaged family backgrounds. It seems therefore that teachers do not consider themselves merely as professional teachers, but they believe that they have a social role, namely to help the less advantaged.

8.2.1.1. Direct influence of family on grading

According to the teachers, the family appeared to be a very important factor affecting the academic attainment of pupils. In the interviews, however, some teachers said directly that they would give higher grades than their attainment to pupils because of family related factors. One teacher mentioned, for instance, that if parents expressed interest in their child's progress, she would give grades higher than his/her attainment. Most teachers, when asked directly if they were affected by the family of the pupils in giving grades higher than their attainment, denied it. However, when asked if there are differences in the way they grade and the way their colleagues do, they said that there are teachers who are biased in their grading and give higher grades to children of friends, relatives etc, or to children who come from families with a high social position. The great majority of teachers denied that they would be affected in grading by family factors -relations, friendships, social status. Moreover, the vast majority of teachers (76.1%) denied that they had been asked by friends, relatives etc to give higher grades to their children. But in the interviews, a number of teachers described situations when friends or relatives had asked them to give higher grades to their children, regardless of whether they did so or not. According to this, and having in mind the social importance of grades in Greek society repeatedly expressed in the interviews and other studies eg. (Kallen, 1996), a higher percentage of agreement would be expected. Perhaps the teachers were making socially desirable responses.

8.2.2. Linguistic level

Pupils' linguistic level and its relations with attainment were considered in the next group of questions. The language which different social classes use has been reported as one of the mediating factors for the relationship between social class and attainment (Bernstein, 1973). However Psaharopoulos & Kazamias (1985) mentioned that different linguistic codes among secondary school pupils in Greece have not been identified, although the need for further research was stressed.

The findings of this study indicate that the majority of teachers (76.9%) believed that pupils' linguistic level is determined by their family. 20.6% took the middle position, implying that they believe other factors affect the linguistic level of pupils.

Teachers also appear to believe that high linguistic level is related to high attainment in both oral (73.7% of teachers) and written tasks (63.4%). As linguistic level is according to the majority of teachers determined by the family, this is another indication of how the educational status of the family is related to the attainment of pupils. Teachers also believe that linguistic level affects attainment in oral tasks significantly more than it affects written tasks. Again this finding demonstrates the 'contradiction' between teachers' theoretical beliefs and actual practices. Classroom participation was mentioned to be relatively the most important criterion for the assessment of the academic attainment of the pupil, because tests and homework were described as socially biased. However, classroom participation is mainly assessed orally, and pupils with a higher linguistic level are expected by teachers to do better. And since, according to the majority of teachers, pupils' linguistic level is determined by the family background, classroom participation would seem not to be socially unbiased.

According to teachers the factors which may improve the linguistic level of pupils were in order of importance: reading, school, interaction with adults, interaction with peers and television. Television received more disagreement about its ability to improve language than agreement. This may be a comment on the low intellectual level of Greek television and not on the potential benefits that television may have on the linguistic level of the pupils.

8.2.2.1. Direct influence of linguistic level on grading

The linguistic level of the child, according to teachers, is related to the family of the child. Children who have a higher linguistic level are expected to attain higher than those with a lower linguistic level. Teachers also indicated that such pupils will be given grades higher than their attainment because they have a higher linguistic level.

Teachers expect work written in examinations to be expressed with correct language, although they are more lenient with oral examinations. Even in a non-language subject, a paper without grammatical mistakes, even if it does not have all the required answers, will be graded more favourably than a paper with the same answers expressed with grammatical and syntax mistakes. Through this the circle, family background - attainment , is further reinforced: Pupils from advantaged backgrounds are not only expected to attain academically higher and are therefore graded higher for the reasons examined before, but are given higher grades for their linguistic level, which is also related to family background. Although the vast percentage of teachers report not being affected directly by the family in grading, they are affected by the cultural 'superiority' of some families, as it is exemplified in the linguistic level of the pupils. In this way, meritocracy appears to be a medium that consolidates existing social differences. But teachers seem to want to present themselves as socially sensitive. They may not be aware that indirectly they reproduce social inequality through their grading criteria.

8.2.3. Intelligence

Intelligence was repeatedly mentioned in the interviews as a characteristic of the high achiever. When teachers were asked to describe what they meant by intelligence, they experienced great difficulty. In the questionnaire, 94.5% appeared to believe that some pupils are more intelligent than others. Without being able to clearly define intelligence, teachers believe that some pupils are cleverer than others. This supports the prevalent idea in Greek education that school achievement -and underachievement- is largely based on intelligence (Fragoudaki, 1985). In response to closed questions, if the question is ambiguous, participants tend to mark the middle position. Here, although the question was ambiguous, in the sense that intelligence was not defined, the majority of teachers marked agreement and strong agreement. They believe that there are pupils who are more and less intelligent, identifying them with a degree of certainty, although the interviews suggested it is hard for them to define how they identify intelligence and thus more and less intelligent pupils. One experienced female teacher mentioned that she could see it in pupils' eyes (!).

When teachers were asked to identify the behaviours that they considered intelligent, based on those emerging from the interviews they were in order of importance: critical thinking, i.e. whether pupils connect new knowledge to previous knowledge and whether they seek for reasons; the questions asked by the pupils; ease of learning; speed of learning; and finally in out-of-school activities. Intelligence has been a focus of attention for educational psychological research for decades and a number of definitions of intelligence as well as tests for measuring it have been suggested. These teachers seem to see intelligence in terms of learning. In other words, intelligence is not seen as an existing trait of the pupil, but it is seen as a metacognitive ability to learn. According to teachers' views, pupils who possess the metacognitive strategies to learn, that is, pupils who connect new knowledge to prior knowledge, who ask questions in order for that connection to take place with no 'gaps', pupils who learn easily and fast are the intelligent pupils. Out-of-school activities are considered least important as an indication of intelligence. Intelligence for the teachers is viewed as being manifest at school and related to cognitive strategies.

The definitions that teachers give to intelligence relate to attainment. The majority of them (75.2%) believe that differences in intelligence of pupils are related to differences in attainment. Pupils who possess the metacognitive strategies to learn are likely to attain higher in all assessments of academic attainment. However, 1 in 5 marked the middle position, perhaps reflecting the position expressed in the interviews, that intelligence per se is not enough for high attainment.

8.2.3.1. Direct influence of intelligence on grading

Perceived intelligence, in contrast with linguistic level, does not seem to affect the majority of teachers in grading, although the majority of teachers believed that the pupils perceived as intelligent are the ones who attain higher. In the pilot study of the questionnaire one teacher said that grades higher than attainment would be given to pupils they consider intelligent because failure for intelligent pupils is only temporary, success will come soon, and the pupil should not be discouraged. These teachers who believe that grades should take account of

intelligence seem to see intelligence as a stable characteristic of the pupil which always exists and should be rewarded.

8.2.4. Motivation

Effort is the expression of motivation. Motivation cannot be observed in itself, it is considered to underlie action. If a child makes an effort at school s/he may be perceived as motivated. Effort shows the existence of motivation without revealing its nature. The great majority of teachers (80.3%) believe that effort and attainment are linked. In other words, the harder pupils try, the higher their attainment.

The perceived motivation in relation to attainment in order of importance according to the mean level of agreement were: goal setting, interest, high grades, rewards and punishments by the parents, parents' expectancies and low grades. If these are grouped together, the first two represent intrinsic motivation, and the last four extrinsic motivation. It seems that teachers believe more in the effect of intrinsic motivation on attainment than extrinsic. Teachers appear to consider goal setting as the most important motive for attainment. Goal setting can be conceptualised within the theory of possible selves (Markus & Ruvulo, 1989) and within achievement motivation theory (Ames, 1992). It has been shown that Greek primary school pupils set goals for later academic success from as young as 10 years old (Zbainos, 1993). According to the interviews, teachers perceive that there are some pupils in the primary school who believe that by doing well at school they can achieve a better position on the social scale, and in order to achieve that they try hard. It is very likely that these ideas have been transferred to pupils by their parents. However, according to teachers, pupils who have personalised these goals are the ones who make a greater effort, not the ones whose parents have great expectancies of them. Interest is the second motive in order of importance which according to teachers motivates pupils to work harder and therefore attain higher. The extrinsic motives, -higher grades for reinforcement of hard work, or reinforcements and punishments by the family- are considered of lower importance for higher attainment. Parental expectancies which have been shown in the literature to be related to high attainment over

many years (Douglas, 1964), are considered by the Greek teachers to be one of the least important motives for high attainment. This may be because almost all Greek parents are perceived as having high expectations of their children. The least important motive is low grades. They do not appear to be successful as a negative reinforcement. According to behaviourism, they should encourage pupils to avoid repeating the behaviour that produced low grades. Teachers perceive that they lower the self-esteem of the pupil. They appear to support attribution theory (Weiner, 1985) according to which if failure is attributed to personal characteristics like ability, then the self-esteem of the pupil is affected and it is not very likely that the pupil will make an effort for success.

8.2.4.1. Direct influence of motivation on grading

Motivation, according to the majority of teachers, is rewarded with higher grades than might be expected from attainment alone. Effort is claimed to be rewarded by 88.3% of teachers. This supports earlier research e.g. (Cizek, 1996; Nava & Loyd, 1992; Wood, 1990) which shows that effort is one of the main criteria by which teachers grade. Interest and goal setting were the two motives examined in relation to their direct influence on grades. Interest appeared to be rewarded per se by more teachers than goal setting, although teachers believe that goal setting is significantly more effective for attainment than interest. Teachers do not report giving grades higher than attainment to pupils due to characteristics that they consider important for achieving high academic attainment. This was also seen with intelligence and family factors. On the contrary, the majority of teachers disagreed that they would assign grades higher than attainment to pupils because they have set goals for their future.

Concerning all the factors influencing grading beyond attainment, high percentages of teachers take the middle position. It seems that a large percentage of teachers are willing to give grades higher than attainment but they take account of a number of factors to do so, and single factors per se do not seem to be taken account of.

8.3. FACTORS AFFECTING GRADING

8.3.1. Behaviour

Behaviour did not appear to affect the majority of teachers in a negative way, by lowering the grade of pupils, nor in a positive way by increasing it. However 15.5% of teachers claimed that they would give grades lower than their attainment to pupils who behave disruptively, and 21.6% of teachers claimed that they would give higher than their attainment grades to pupils with disciplined behaviour. Approximately 30% took the middle position, suggesting that under certain circumstances their grading would be affected by behaviour in either a positive or a negative way. It seems therefore that behaviour, although it is reported separately in the report cards and should not be assessed through grades, plays a role in grading for some teachers.

Teachers appear significantly more willing to reward disciplined behaviour with grades higher than attainment, rather than punishing disruptive behaviour with grades lower than attainment. This suggests a tendency for leniency. Generally teachers appear willing to give grades higher than attainment according to a number of factors, while they do not appear to assign grades lower than attainment for the lack of them. For instance, they reward effort with higher grades, but they do not give grades lower than their attainment to pupils who do not make an effort. The numerical description of the academic attainment of a pupil appears in most cases to be the lowest possible grade a pupil can get. Almost all the other factors contribute by increasing it. This supports research (Wood, 1990) reporting that teachers tend to assign high grades more than low.

8.3.2. Personal likes

Another factor which affects grading is the personal likes of teachers. More than half of the teachers (52.8%) agreed that they liked some pupils more than others. Teachers who have

worked longer in the first three year groups agreed significantly more with that statement than other teachers. Teachers who have worked with 6-9 year old children, the 'cutest', are those who are more likely to like some pupils more than others.

The factors affecting personal likes were in order of importance according to the mean levels of agreement with the relevant statements: the behaviour of the pupil, the character of the pupil, attainment, appearance and finally the family of the pupil. Attainment plays a relatively important role in liking a pupil. Agreement with this statement was much larger than disagreement. The traditional view, that the 'good pupil' who is loved by the teacher is the 'high achiever', is supported. Appearance and family as factors received more disagreement than agreement.

The answers on whether teachers are affected by their personal likes in grading were almost equally divided. About one third of teachers who agreed that they like some pupils more than others believed that this influenced them to give grades higher than their attainment. Personal likes appear to affect a considerable percentage of teachers. The issue of how personal likes are developed has not been explored in depth but it would seem that it can have an effect on grading by some teachers.

8.3.3. Different attainment in different subjects

According to the majority of teachers, pupils do not attain equally highly in all subjects. Some pupils are better in linguistic subjects, others are better in mathematics, science etc. Only a small minority agreed with the opinion expressed in the interview study that high achievers succeed in all subjects and low achievers are generally unsuccessful. Most teachers appear not to be affected by pupils' differential attainment in grading. The majority appear to assign grades to each subject independently of others. But some teachers indicated that if some pupils did not attain as high in some subjects, they will be given a grade higher than their attainment due to the fact that they attain higher in others. A considerable percentage of teachers, almost 30%, took the middle position. There is clear variation in teachers' beliefs about general

academic attainment.

When teachers were asked whether differential attainment would affect grading in a negative way, teachers' agreement dropped significantly from more than 30% to 13%, and no strong agreement was expressed. This is the second factor -the first was behaviour- which was considered for its negative effects on grading. The percentage of agreement was similarly low. The issue of leniency is raised. Teachers appear willing to give grades higher than attainment for a number of reasons; however, only a minority of teachers seem to be affected by the two factors examined as lowering the attainment level grades. Attainment level grades seem to be treated as the baseline and they are decreased by only a small minority of teachers.

8.3.4. Pupils' awareness of attainment

Teachers so far have been presented as being absolutely free in assigning grades according to the way they feel, not being restricted by any persons or institutions. At the time of the study, teachers were not appraised or inspected. The only restrictions on teachers' grading are those imposed by the pupils. Pupils are aware of their attainment in relation to others, and this restricts teachers' arbitrariness in grading. 86.9% agreed that pupils are aware of their attainment, and that grading does no more than reflect an existing situation. 46.1% said that pupils' perceptions of their worth in comparison with others are taken into account when grades are assigned. This suggests that teachers will not give high grades to pupils who are considered low achievers by the class, and vice versa, in order not to disturb the sense of justice in the classroom. The majority of teachers therefore have proclaimed the children of the class to some extent as the judges of their grading. A minority of teachers, represented by a relatively large percentage (32.5%) did not agree with this statement. They did not feel that what pupils think about their attainment restricts their grading.

According to Broadfoot, James, McMeeking, Nuttal, & Stierer (1990), the tendency of pupils to judge their achievement in relation to their perception of the range of achievement in their teaching groups shows the persistence of norm referencing. Teachers through their

expectations categorise pupils into 'high', 'average', and 'low' achievers and pupils are affected by this in their perception of their own attainment. Norms therefore exist even in educational systems where norm-referenced testing has never been used. It seems that the psychometric idea that ability is normally distributed among individuals imposed indirectly -and maybe unconsciously- by teachers is accepted by pupils, and in turn is perceived to be used by teachers in their grading.

8.3.5. School and class characteristics

The last factors that appeared to affect grading are related to school and class characteristics. The vast majority of teachers appear to believe that grades take a different meaning and value within each school and class. They are not comparable with the same grade in another class of the same year group in another school. In other words, as mentioned in the interviews, a 10, which is the highest grade, in a village school may represent the academic attainment of an 8 in an urban school, and that may represent the academic attainment of a 7 in another school where the average is higher. The majority of Greek teachers tend to give the highest grade to the highest achiever, regardless of the absolute value of the level of achievement. Although the assessment system in Greece is criterion-referenced since it takes place through the criteria described, and theoretically there is a chance for all pupils in a class to be assigned the highest or the lowest possible grades, according to the majority of teachers a normalisation of grading takes place in each class. It cannot be claimed that grades are normalised according to national standards, since that would presuppose national standardised tests which have never existed in Greece. This finding brings in mind the example of the German assessment system, the Notenskala, mentioned in Gipps (1994) as an example of a combination of norm and criterion-referenced assessment systems, where grades have a different value and meaning within different types of each school. In Greece however, grades seem to have a different meaning and value within the same type of schools.

Why this happens is not easily interpreted from the present data. Teachers appear to believe that one purpose of grading is differentiation between pupils, and therefore they assign grades according to this belief. Assessment for curriculum differentiation was found in Y6 by

Gipps, McCallum, & Brown (1996), while at key stage one assessment for diagnosis was the main purpose of assessment. Grades, as has been reported repeatedly by the teachers in the interviews and by research in the Greek educational system have a high value in Greek society in the sense that they represent the overall 'value' of pupils and not only their academic attainment. In everyday language in Greece, the terms 'high achiever', 'good pupil' and 'clever child' are not clearly distinguished and are often used to describe the same thing, namely the pupil with high grades at school. Social value is not defined in absolute terms but in relation to others. Parents would not take pride because their child has been given high grades at school if all children had been given the same high grades. Their status is enhanced if their child has been given the highest grades of all. In the interviews one teacher reported not only that she had received pressure from a colleague to give high grades to her own daughter, but also to give lower grades to the other pupils. Although this example may be extreme, teachers, in response to social demand, or even as members of the same society espousing the same values, may be differentiating among pupils by their grading. In this way however, some pupils are discriminated against. If a pupil in a class with low average attainment is relatively better, then unfairly s/he will be given the highest possible grade. However, it is much more unfair for the average pupil who has the bad luck to be in a class with a high level. This pupil will be given the lowest grade, with all the consequent motivational effects that this may have. Thus, assessment for differentiation seems to have its roots in the social expectations of schooling that teachers appear to fulfill in Greece, and not in curriculum impositions to which Gipps, McCallum, & Brown (1996) attributed their findings.

The factors which affect the different meaning and value of grades in different schools and classes, according to the interviews and the vast majority of teachers who answered the questionnaire, are, in order of importance: the educational level of the class, the social background of the majority of pupils and the geographical area where the school is situated. The first factor is significantly different from the other two, which are not significantly different from each other. If a class, by chance or not, has a high educational level on average, then pupils are going to be graded more strictly. If a class on average has a low educational level then pupils will be graded more leniently. In schools where the majority of the pupils

come from a disadvantaged family background, they are more likely to attain lower and therefore be graded more leniently than schools where the majority of pupils come from a privileged family background. Similarly, pupils in schools situated in remote country areas are expected to attain lower on average and are graded more leniently, whereas the opposite is expected for pupils in schools in central towns.

This expression of teachers' social sensitivity was in evidence many times in the interviews and in the questionnaire. Teachers may feel that they compensate for the disadvantaged background of pupils by giving them grades higher than their attainment. Teachers do not expect pupils from disadvantaged backgrounds to attain as high as children from privileged families, and therefore they cannot be graded according to the same criteria. However, although this attitude appears socially sensitive and fair, in the long run it is ineffective. These children later compete with those from privileged backgrounds, either for a position in a University through national examinations, or for employment. Grades from the primary school, or even from the secondary school -if grading takes place in the secondary school in a similar way- do not count. Pupils will be selected on their attainment. Lowering standards or make the assessment criteria flexible in accordance to the background of the pupil is not a genuine compensation. If teachers want to help pupils from disadvantaged backgrounds, they need to provide support and teaching resources so that they reach the same academic levels as pupils from privileged backgrounds. The majority of Greek primary school teachers appear to believe that it is part of their job to provide extra help to children from socially disadvantaged backgrounds, and that school is an institution which can compensate for disadvantage. These beliefs constitute a basis on which an effective compensatory education may be built.

8.3.6. Teachers' ideas about assessment

The last section investigated teachers' general attitudes towards the assessment system in the Greek primary school. First, the majority of participants (65.5%) believed that grades should exist in the primary school. Indirectly, they expressed disagreement with the practice

implemented in the past when grading was abolished in the primary school. They expressed a positive attitude towards grading, a phenomenon supported in the literature. For instance Blount (1997) reports that almost 65% of the teachers in his study claimed that they would assign grades even if to do so or not was solely up to them. Since teachers express little agreement with the idea that grades per se have great motivational effects on pupils attainment, this attitude might be related to the notion of 'assessment for control' observed in the Greek primary classrooms by Mavromatis (1996). Teachers in the primary school appeared in his study to use assessments in order to impose a smooth flow of instruction by criticising undesirable and praising desirable performances, expressions and attitudes. In the interviews one teacher reported that she uses the threat of lowering grades to maintain pupils' behaviour. It seems therefore that grades are a powerful 'tool' in the hands of teachers to control pupils. This may partially explain the pro-grading attitude of teachers. Furthermore, grades have a high value in Greek society. Teachers' social status therefore is related to grade assignment. This also could be a reason for the pro grading attitude of teachers.

Teachers' opinions on the existing grading scale -no grades in the first three year groups, verbal characterisations in the middle two, and 1-10 scale in the last two- are divided. Although the majority agreed with the present scale, an important percentage (33.2%) believed that the scale should be numerical in all year groups, so that the differences among pupils with the same verbal characterisation were more obvious. The idea behind the lack of grading in the first year groups, and the verbal characterisations in the middle year groups, was that low grades could have negative effects on some children. A large percentage of teachers appear to reject the potential negative motivating effects of low grades for some young children, and would prefer a more discriminative grading scale. These teachers appear to believe that the main purpose of grades is to rank pupils and that the scale used should operate to achieve this. Once again therefore differentiation is presented as an important purpose of assessment by Greek teachers.

Finally, teachers appear to believe that grading is their private 'business'. The great majority of teachers did not express an opinion as to whether they think that other teachers grade in the same way as them. In the literature it is acknowledged that meetings and discussions on

grading criteria increase reliability of grading e.g. (Black, 1998; Cizek, 1996). Greek primary teachers appear not to discuss grading with colleagues, being reluctant to answer questions about other teachers' grading in both the interviews and the questionnaires. In the interviews, after persistence by the interviewer, some teachers did comment on other teachers' grading practices, mainly in a critical way. When such comments were invited in the questionnaire, although it was anonymous, no negative answers were received. Perhaps questionnaires are not the best tool for investigation of 'sensitive' issues, although anonymity is guaranteed. A friendly confidential interview atmosphere may be more appropriate.

8.4. DIFFERENCES AMONG TEACHERS IN THEIR OPINIONS ON FACTORS AFFECTING ATTAINMENT AND GRADING

Many differences among teachers were found in the levels of agreement with each of the statements. Two which were relatively consistent will be discussed here. These are the differences between teachers working in urban and non-urban geographical areas over factors affecting attainment, and the differences between younger and older teachers' views over the factors affecting grading.

Teachers working in urban areas at the time of the study believed significantly more than teachers working in non-urban areas that the psychological environment of the child affects his/her attainment. They appeared to place more importance on the educational level of the family in relation to attainment, they believed less that the access to knowledge which educated parents provided for their children was the reason for the relationship between family's educational level and pupils' attainment; they agreed more strongly that the linguistic level of pupils was related to the family background; they believed more strongly that a higher linguistic level is related to higher attainment in written tasks; they believed more that interaction with adults affects the linguistic level of the child; they thought that intelligence can be seen in the ease of learning more than their colleagues who worked in non-urban areas at the time of the study; and finally they gave more importance to interest and family expectations as a motive for pupils' attainment.

Most of these differences show that teachers in urban areas place a higher importance on the pupils' family background in relation to their attainment. In urban areas, the pupils' background is more diverse, while in non-urban areas pupils' background is relatively homogenous, and mainly low educationally, since most of the inhabitants of the non-urban areas are farmers (OECD, 1997; Kyridis, 1994). It is easier for teachers working in urban areas to relate attainment differences to family background differences. Teachers working in non-urban areas, however, see that some pupils succeed educationally, regardless of their family background; such examples were presented in the interviews. These teachers seem to believe less in the effect of family background on attainment. Furthermore, if they believed that family background determines attainment their work would appear to be pointless, as the majority of their pupils come from an educationally low background. However, as mentioned before, sociological studies have shown that the frequency of underprivileged, poor pupils that, against all odds, succeed educationally is smaller than generally believed (Fragoudaki, 1985). Teachers in non-urban areas appear therefore excessively optimistic about the compensatory effects of their work.

The second consistent difference among teachers is related to the factors which affect grading. Older teachers appeared to be influenced significantly more by non-academic factors in assigning higher grades than by the academic attainment of pupils. Thus, family interest, friendships, family status, behaviour, personal likes, differential attainment and pupils' awareness of their own attainment in relation to others appeared to affect older teachers' grading more than that of younger teachers.

Almost all of the non-academic factors appeared to affect older teachers' grading more than younger teachers'. A first interpretation of this finding might be that older teachers tend to be more biased by non-academic criteria. Perhaps, having been working in a school for longer, they know the local society to which the parents of the children belong; they might have been the teachers of the parents and might be therefore more susceptible to these influences. Drawing on their experience, they are more likely to answer in a positive way questions of the type 'I have even once...'. The older teachers may be just more honest than the younger in their answers. However, a closer look at the mean levels of agreements -they are all lower than

3- shows that older teachers do not have a markedly positive attitude towards biased grading, but that there is an extremely negative attitude to this among younger teachers. Younger teachers' mean levels of agreement to these questions are between 1 and 2 that is, the mean is between strong disagreement and disagreement. Younger teachers appear to take an extreme position on not being affected by non-academic factors in grading. In Greek society, where favouritism has been the established model for decades, the new generations of teachers appear to hold a strictly meritocratic attitude indicating that they are not affected by non-academic criteria in grading.

8.5. FACTOR ANALYSES

8.5.1. Factor analysis of factors affecting attainment

The factor analysis of the factors affecting attainment in the questionnaire revealed four factors, namely 'intrinsic motivation', 'extrinsic motivation', 'family provision', and 'family status'. The motives examined appear to create uncorrelated factors; in other words, according to teachers, intrinsic and extrinsic motivation appear to affect pupil attainment independently. Linguistic level, which was examined separately, was linked with the financial and educational level of the family and created the factor 'family status'. Providing an environment which satisfied the material and the psychological needs of the children as well as showing interest in the progress of the pupil, was a factor not correlated with family status. Families, according to the factor analysis of teachers' views, do not necessarily need to be rich and educated with a high linguistic level in order for their children to achieve in school. Providing a good environment in itself may affect children's attainment. Intelligence, which was examined independently in the questionnaire, appears to have a relatively low correlation with the factor 'intrinsic motivation', and therefore should be treated cautiously. Teachers think that either the intrinsically motivated pupils are the intelligent pupils, or that intelligent pupils are intrinsically motivated and therefore attain at high levels. As intelligence, according to the definition of teachers, is related to the metacognitive awareness of the pupil, then, pupils with developed metacognition are the ones who are intrinsically motivated, or the

intrinsically motivated pupils have developed metacognition and therefore attain high.

According to the factor analysis, four factors seem to affect pupil attainment. The first has loadings on the variables examining the relationship between intrinsic motivation and attainment. Intrinsic motivation therefore is the first factor affecting attainment. Extrinsic motivation, the second factor, appeared to be an independent factor, meaning that according to teachers intrinsically motivated pupils are not necessarily extrinsically motivated and vice versa. Family provision with loadings from the variables examining the relationship between the environment that parents provide for their children and the interest they show in their progress in relation to attainment, was the third factor. And finally, the fourth factor was family status, with loadings from variables examining the financial and the educational level of the family, as well as the linguistic level of the pupil.

8.5.2. Factor analysis of factors affecting grading

The factor analysis of factors affecting grading produced six uncorrelated factors similar to the interview factors.

The first factor affecting the grades given at the end of term are school and class factors related to the educational level of the class, the social background of the majority of pupils and the geographical area where the school is situated. Teachers, after they have decided upon the academic attainment of each one of the pupils, make decisions upon the range of grades that they will give according to these factors.

The second factor is the family of the pupil. This factor has been extracted because of the low agreement with the statements that make up the factor. Teachers overall are not affected by such family factors as interest shown in their children's progress, the status of the family of the pupil and the teachers own relationships with the family of the pupil.

The third factor is differential attainment in different subjects. It seems that when teachers

are deciding which grade they will give to pupils in a specific subject, they think of their attainment in the other subjects. If their attainment is high in the other subjects they may give a grade higher than their attainment to that pupil, or if their attainment is lower in the other subjects they might give a lower grade. The moderate correlation of this factor with the variable investigating whether teacher would give grades higher than attainment to pupils that they consider clever highlights the process of decision making in accordance with the differential attainment of pupils. That is, if teachers consider some pupils clever who attain low in one subject they are likely to give them a grade higher than their attainment in that subject. If they consider some pupils less clever, even if they have attained higher in one subject they are likely to lower that grade.

The fourth factor is behaviour. When teachers assign grades they seem to take account of the behaviour of the pupil. If it is disciplined they may give grades higher than attainment and if it is disruptive, they may give grades lower than attainment. This factor is correlated with the self-perception of pupils' attainment in relation to others. It seems that at this stage teachers are likely to think whether the distribution of grades should not be so extreme that it disturbs the sense of justice in the class.

The fifth factor is the linguistic level of pupils. It seems that results in both tests and oral examinations are influenced by the linguistic level of pupils. The data that teachers have about academic attainment, regardless of how they are collected, are affected by the linguistic level of pupils. Tests and oral examination data are in advance biased against pupils with linguistic difficulties. Furthermore teachers seem to perceive that they give grades higher than attainment to pupils with a high linguistic level. Thus, linguistic level, which according to teachers is related to the family of pupils, is not only a factor which affects attainment as shown before, but affects favourably the marking of tests and oral examinations, and this leads to higher grades than the already biased assessment of academic attainment.

Finally, the last factor is intrinsic motivation. Teachers report giving grades higher than attainment to pupils who make an effort and have set aims for their futures.

8.6. CONCLUSIONS

The main conclusions arising from the discussion of the findings are :

- ◆ Greek primary school teachers appear to base their grading on criteria set by themselves. Although the state stipulates the criteria, teachers decide whether they will comply with them or not.
- ◆ Greek primary school teachers' grading is multifaceted. It represents an overall picture of pupils, not only their measured academic attainment.
- ◆ Grading depends on teachers' characteristics e.g. age, experience, gender.
- ◆ Grading depends on the context where the teaching takes place -age of children, geographical area of school, pupils' background, and their awareness of attainment.
- ◆ Grading depends on the cognitive, personal, and social characteristics of pupils -e.g. intelligence, appearance, behaviour, family-.
- ◆ Grades are the outcome of both criterion and norm-referenced assessment, where the norm is defined in each class. Theoretically, all pupils may be assigned the same grade; however, teachers tend to give the highest grades to the relatively higher achievers.
- ◆ Grading in the Greek primary school cannot be characterised as either valid or reliable. It is invalid, since it is based on perceptions and intuitive judgements and not on evidence, and unreliable, since different teachers grade in different ways and therefore would be expected to assign different grades to the same pupil.

8.7. RECOMMENDATIONS FOR BETTER ASSESSMENT AND GRADING IN THE GREEK PRIMARY SCHOOL

This study indicates the need for a re-consideration of grading practices in Greek primary schools. This should be done not only by the central government but by all the involved parties; administrators, assessment experts, teachers, parents. Within the framework of

assessment reform provided by Cizek (1996) the following recommendations can be made:

1. Professional development should become a top priority. Greek teachers receive little or no training on assessment, and this may be related to the grading practices used by them. Even in INSET, assessment courses are not available.

2. Training in assessment needs to be relevant to classrooms. Little training is offered in Greece. If a teacher wanted by him/herself to learn about assessment, s/he would not be able to do so since there are only a few books available on the issue, and these as mentioned in the literature review, are mainly concerned with either the sociological impact of assessment, or with the presentation of general theories about assessment. There is little practical advice on how assessment can be improved.

3. Educational leaders should develop an 'assessment vision', and grading policies must be developed and applied consistently. Educational leaders include not only the political leaders of the ministry of education, who frequently change, but also the academic community which provides the 'scientific basis' for any reforms, as well as the teachers' union leaders currently representing and promoting not only the financial claims of teachers, but also the educational policies which aim to develop a better educational system. The purposes of assessment, the role of the ministry and of teachers in assessment, and any proposed changes should be discussed and agreed by all parties before they are implemented. The present situation of changing the assessment system every time that the minister of education changes leads teachers to develop their own assessment strategies and to disrespect the existing law, as they know from experience that it will not last for very long and it will change when the leadership of the ministry changes. The implementation of legislation should be monitored by the ministry. According to the existing situation, theoretically, the law should be implemented but no responsible person or body at present knows if it is implemented. The arbitrariness in the grading practices reported in this study will continue if no one exercises any control over teachers. Teacher appraisal, since it was abolished in the early eighties, and although for almost ten years governments have attempted to reintroduce it, is still a 'taboo' issue among teachers, provoking strong opposition by teachers' unions. However, society wants to know

what is going on in schools, needs to know if the laws that the elected government makes are implemented in schools. Parents want to know about the quality of the education of their children, and it is believed that they have the right to do so.

4. There is a need for more discussion, and to reduce isolation. Cizek (1996) mentions that poor assessment practices flourish in schools where teachers are isolated and do not benefit from interaction about difficult assessment issues. In Greece, the perceived belief that assessment is each individual's 'business' promotes the isolation that leads to poor assessment practices. It increases the unreliability of grades, since different teachers assessing by different criteria may assign different grades to the same pupil. And although this is well known among teachers, it is accepted, and does not even provoke any discussion on defining general principles by which assessment should take place. It is probable that Greek teachers, according to the long tradition of individual grade assignment, do not even realise that they should assign grades on the same basis. Initially discussions should take place among teachers within each school, to decide upon some criteria, then within the district and finally, centrally.

5. Pupils and parents should be initiated into a new grading culture. The social value of grades in Greek society has been repeatedly mentioned. Perhaps because of this, a clear tendency towards leniency was identified. However, grades are not supposed to represent the overall value of a pupil, with consequent social effects; they are supposed to show mastery, knowledge, skills and ability in each subject. In other words grading should become valid, that is, it should measure what it is supposed to measure. Grading is supposed to represent academic attainment, and this is what it should do. Non-academic criteria can be reported separately but should not affect grades. For instance, effort should affect grades to the extent that it affects academic attainment and not beyond that. Extra effort, disciplined behaviour etc. can be reported or graded or praised separately; they should not be included in grades, because grades in this way lose their validity. The means of assessing academic attainment should also change, and assessment experts should help towards this.

6. Assessment experts must be involved. They must help in devising assessment plans which assess academic attainment in as valid and reliable a way as possible. Formal ministry tests,

which are not taken into account by teachers anyway, should be abolished. It was recently announced that a working party has undertaken the devising of new formal ministry tests. It is likely that the new tests' destiny will be the same as that of the old ones. After a year, pupils will know the questions and the validity of those tests will be eliminated. On the other hand, national examinations like those for key stage one and two in England and Wales increase the anxiety of some pupils, parents and teachers and would create an examination-oriented primary school. A more flexible decentralised system based in schools, but maintaining validity and reliability, should be introduced. The principles of the recent discussion on an educational assessment paradigm, as presented in the literature review, could help in this.

8.8. LIMITATIONS OF THE STUDY AND ISSUES RAISED FOR FURTHER RESEARCH

8.8.1. Content

The present study has attempted to provide a comprehensive description of Greek primary school teachers' grading criteria and perceived practices. In its attempt however to deal with many criteria and practices, it could be criticised in that it did not examine them in great depth. Each of the issues examined could in itself be the subject of extensive in-depth investigation. For instance, each of the criteria for the assessment of academic attainment, testing, classroom participation and homework in relation to grading could be the focus of independent in-depth studies.

On the other hand, this study could also be criticised because it has not examined all the factors which may affect grading. A number of personality characteristics, such as creativity, introversion/extraversion etc, as well as social characteristics of pupils such as sociability, leadership, etc. have not been examined in relation to grading. The study has attempted to achieve a balance between these extremes. Further research could take a broader perspective or examine each area in greater depth.

8.8.2. Methodology

The methodological plan of the study attempted to record as many criteria by which teachers assign grades as possible, and then investigate the extent to which those criteria are taken into account by a relatively large number of teachers. The findings were based on what teachers reported that they do, not what they actually do. A different methodological plan could investigate whether there is inconsistency between what is said by the teachers and what actually happens, although this is difficult to establish. Perhaps a study of pupils' or parents' perceptions of how grading takes place would be illuminating. An ethnographic observational case study could also provide more objective qualitative information on the criteria by which teachers assign grades to pupils. Also, studies comparing pupils' performance on standardised attainment tests and teachers' grades could provide information on how teachers grade. All these aspects could be the subject of further study.

8.8.3. Generalisability of results

Generalisability of findings is one of the major aims of every study and one of the hardest things to substantiate, since it is hard to claim that the findings are not due to the special characteristics of the investigated sample but are true for the overall population.

The sample of this study consisted of a relatively large population of teachers, relatively balanced in terms of demographic characteristics. However, only half of those who received the questionnaire responded. Therefore it could be claimed that the results of the questionnaire only show the grading criteria of teachers who a priori have something in common, namely that they answer questionnaires. The findings of this study would need to be confirmed and reconfirmed before it is claimed that the results represent the tendencies of the overall population of Greek teachers.

The larger the sample, the more likely it is to represent the overall population; however, statistical analyses using large samples tend to produce more easily statistically significant

results. In this study the combination of the large sample with the small 1-5 scale tended to produce many significant results. In fact, many of the differences found among different groups of teachers may have been found because of this tendency, and this is the reason that in the discussion only the differences that formed a pattern were raised. Correlations were mentioned only a few times because, due to the size of the sample, correlations of .2 were presented as significant. Unfortunately in Greece small representative samples of schools, statistically selected, are not available and thus, random -and to a certain degree convenient- sample selection is the only possible way for educational research to proceed.

The relevance of these results to secondary education requires exploration. Are the grading practices of secondary school teachers different from those of the primary? And if so, to what extent and for what reasons?

Finally, do the findings of this study reflect teachers' grading practices in other countries? In general, few cross-cultural studies have investigated grading criteria and practices for teachers from different countries. This is probably because grading is largely dependent on the educational system within which it takes place. A careful methodological plan however, may enable such research and reveal similarities and differences which would be of great interest.

While this research can be criticised on a number of grounds, it did achieve its initial and basic aim. It initiated the exploration of an area of Greek primary education which has not been directly investigated before. Its contribution may lie in the long term not only on its findings, but on the questions it has raised which might stimulate other researchers to investigate further.

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APPENDIX

Appendix 1.1 Interview Sample

S4

20-4

-Before we begin, can you please tell me how many years you have worked?

◆ This is my 8th year.

-First of all I would like you to think of a pupil who is a high achiever, and from now on when we say high achiever we mean the pupil who is going to get high grades in the report for the term, and of another pupil who is a low achiever, that is, gets low grades in the report. Can you describe the characteristics of the pupil who is going to get the high grade? If you have a particular pupil in your mind it is even better, so that the characteristics are more specific.

◆ I do not have a particular one in mind, because what I am interested in is the pupil who is diligent first of all, that is, interested in the lesson, participating in the class, studying his lessons, the usual things.

-On the other hand?

◆ On the other hand a pupil who is not interested at all, who does not prepare at all, who talks in the classroom, who is not interested in the lesson at all. This is what I mean a low achiever.

-First of all can you tell me how you can you see his attainment in an objective way?

◆ From his participation during the lesson time. I have this year a class which is

wonderful really, I haven't seen a class like this before. Most years in the past I taught low year groups like the first year group, and now that I work with a third year group, I think that the children are perfect; their participation is great; 99 per cent of the children participate, I haven't seen anything like this before. Children participate in everything; they hear what you say they ask you questions; they are interested.

-When you say 'participation' do you just mean oral participation or written work as well?

- ◆ Written work as well, definitely, but tests for me do not play an important role. They do play a role in assessment but they are not that important. For children it is much easier to get high grades than with written exams. When I mark I do not place any weight on the written exams. I do not calculate the average grade by saying that the grade for written tests is say 5, the oral is 10 and give the mean in the report. I do not do this. I place more weight on the oral part of the lesson.

So, tests are not restricting for you.

- ◆ No, not at all.

You mentioned diligence, preparation of the child. Is preparation important for the achievement of the child?

- ◆ Since the system in Greece is like this, there is no way for the child not to study at home. I give them some extra exercises in addition to the ones in the book both in language, and in mathematics in order to integrate the new knowledge, because I never ask children to do the work in the book at home, I ask them to do my own stuff. If the child does not do that, s/he will not be able to integrate those things, in a day s/he will have forgotten them. I work very much with exercises. I give them much work both at school and at home to integrate the new material. For example a grammatical rule. You taught it, you told it, you did the lesson in the book, you did the exercises in the book, but it will be forgotten if no further integration takes place at home. Also if no

continuous repetition takes place.

-Is preparation at home going to bring better grades because the child will attain more or is it going to be assessed by itself?

- ◆ No, it is not going to be assessed by its self. And I had a confrontation with the consultant on this matter, because he told me to give them the exercises that they did at school for homework, and I told him that this is stupid because children who do not know anything come with their exercises done, which means that their parents did it. No, it is not going to be assessed on its own. The integration of the knowledge is important.

-Let me ask you the same question in another way. Let us say that a child who does his/her homework achieves up to a certain level and another child who does not do his/her homework reaches the same level of achievement in the way that you measure it. Will both pupils get the same grade in the term report?

- ◆ Yes, they will. Usually however there are no cases like this. The pupil who is considered as good will forget to do his homework once or twice. The ones who are considered as good do both their homework and their work at school. There is no big difference, for example if the child does not study his history at home, he will not be able to say it the day after at school. These two things go together.

-Let us consider now the effort that the child shows. Do you assess it? Do you reward it?

- ◆ Yes, it is certainly rewarded.

-Let us imagine a child that for some reason reaches a certain level of achievement after a big effort and another child who reaches the same level of achievement without any effort. Will the first child get a higher grade because of the effort that s/he made?

- ◆ No. Because for example I have a pupil who is extremely clever. I cannot say that the other pupil is going to get any higher grades just because he tries. He does the same things as well without trying.

-Is it possible for a pupil to do his homework, to be diligent, to try hard and not to achieve?

- ◆ Yes, I see this thing in the theoretical subjects. Because our system is based on the parents of the children and this is very bad, because we have some books which are unreadable, for example the religious education ones for the third year group use very difficult language. I had a discussion with the parents and I told them that they should learn the lessons as fairy tales as I tell them. I just want the children to read the text once in order to learn to read, and I see that when the parents only try to teach the child what the book says, the child cannot achieve. I see pupils who I know have studied at home, and when they try to say the lesson as it is written in the book, they cannot say it. I know that the children have studied; I know that; but they cannot perform at school.

-So what are the reasons, why the children cannot achieve in spite of their effort?

- ◆ I think they cannot achieve because they try to memorise the book, which is very hard.

-Is it possible that due to individual differences a child tries and does not achieve, while another achieves without trying?

- ◆ When you say 'individual differences' do you mean children who may have a mental problem or a family problem?

-Let me ask you the same question in a different way. Do you see any differences in the intelligence of the children in the classroom?

- ◆ Yes. Definitely the parameters are very many. But the fact remains that there might

be a child whose intelligence is lower than the others. Not all the children have the same intelligence. And I have to mention that the family and the social environment of the children is very important. This is very important at least in Greece as I know it. Except for the children that are mentally retarded, and this is obvious. They try very hard but they cannot manage. There are such children.

-Which are the characteristics of a child that according to your opinion is very intelligent?
What is intelligence for you?

- ◆ You can see it from the questions that the child asks. I believe that you can see intelligence not in what you teach the child but from what it asks. Because there are children who ask you something and you are astonished. You can see that these children have more developed intelligence than the other children. But these are very rare. They are not an everyday phenomenon. Usually most children have more or less the same intelligence. Both the children with mental problems and the geniuses are minorities. We do not meet these children very often.

-Is intelligence shown in speed?

- ◆ Yes it is, for me it is.

-Is it quality as well?

- ◆ It is.

-When a child achieves, does s/he achieve in all subjects?

- ◆ No, not necessarily. It depends on the personal interests of the child. Because I think that people from the beginning have some direction, and I do not know if the fact that some children have some preferences for theoretical or practical subjects is due to the social background or due to their intelligence.

-Let us imagine that a pupil is good in one of these groups of subjects. Will this fact affect you so that you give him/her higher grades in the other, and vice versa? That is, imagine a child who achieves 10 in language and 8 in mathematics. Will the 10 in language affect you and give him a 9 in maths because he is a high achiever in language?

◆ Yes, I do this.

-Do you do it by giving higher grades, or by giving lower?

◆ By giving higher.

-Does behaviour in the class affect your assessment?

◆ No, not for me. No, not at all. I have children who are very intelligent but who are hyperactive. They create problems they talk to other pupils; but grades are grades; it does not affect me, maybe because I like lively children.

-What about the opposite, if they are very quiet.

◆ The same, but this annoys me a little bit. I try to boost their self-confidence because they are usually children who lack self-confidence and they are very quiet, but it does not affect grading. Not at all. That is, I have children who are very lively and who are good pupils and others who do not talk at all and they are good pupils and get the same grades. I cannot say that behaviour affects me.

-You told me that oral participation is a major factor in your assessment. Won't this affect a quiet child who will not participate?

◆ Yes, but you can see that in the classroom. You can see it. There is a chance not to understand it during the first month, but it is obvious from there on. Even when the

child does not talk, from the way that s/he works either in his exercises or in the rest of the work of the day you can see that this child knows. And the child who does not talk will talk when you ask him/her when s/he is addressed. This child simply does not create fuss, but as I see it, it does not affect my grading. The child who is a good pupil and lacks self confidence is obvious, it does not affect my grading because I believe that if you give him a lower grade you will punish him/her for his/her lack of self-confidence.

-Do you think that the children perceive in the class who are the high and the low achiever?

◆ Yes, yes.

-And does your grading confirm an existing reality?

◆ Yes this thing happens, you cannot do differently. Wherever grading exists, and it should exist in my opinion, this thing happens.

-Do you think that the family background is related to the attainment of the child?

◆ I think that 99.9 per cent of the attainment is due to the family; if the child lives peacefully in the house, if s/he does not have any problems, or if s/he has parents with problems who do not take care of it, it is definite that the child will not do well. And I have seen this in the 8 years of experience that I have. Children who come from problematic families usually do not do well. It is very hard, and it is logical that since the child has problems at home, s/he is be absent minded in the classroom. S/he cannot achieve because s/he has psychological problems, and it is impossible to adapt to the climate of the class, I see this; it is obvious.

-What do you mean by family problems?

◆ There is a percentage of children from divorced families; if the parent who lives with

the child does not pay special attention the child will have a great problem. There are parents who are not interested in their children, and you see this in the villages. They are more interested in their fields than their children. They are not interested. You invite them to school and they tell you, 'Come on we have peach trees let him/her go and work there'. And you can see that this child is not being looked after, they have no motivation, there are children who do not experience love in the family towards them and between the parents, they experience fights at home.

-Does the educational level of the family affect the attainment of the child?

◆ Yes to a large degree.

-How does this happen?

◆ I believe that the parents who have a higher educational level can cooperate better with the teacher. Also, they can help the children more than a parent who has no education or who is illiterate, because such people exist in Greece.

-If I asked you how would you advise the parents to help their children what would you say?

◆ What I always advise them is to be interested in their children's problems, not the school problems, but mostly the problems that they have as children. I tell them that children have not only a need for food and clothes, they have a need for love for tenderness and this a thing that you do not see in Greek parents; they ask from their children much more than what they can do, they tell them to be good pupils, to get high grades etc, and they are not interested if the child has any problems, either with his/her friends or with the family, because I think that it is a priority for a child to be well psychologically, and a second priority to do well at school.

-What advice do you give on how to help them with their lessons?

- ◆ As far as the lessons are concerned I invite them and we discuss each book separately, how the child should work in each subject. That is, in language we do at school the grammatical features and at home the children should read the text repeatedly, in order to gain ease in speech, and I give them exercises similar to the ones we did at home for homework, and the only thing that I ask the parents is to check if the children do those things. The same thing with the maths. In the theoretical subjects, they have to help the child to explain some things that he does not understand, this is why I'm telling you that the educational level of the parents does play a role. If the parent does not have an educational level s/he cannot offer help to the child. These things are being taught at school, but the child may have forgotten some things and this is why the book exists.

-Do you think that children from different family backgrounds come with different language levels to school?

- ◆ Definitely.

-Does this count as far as achievement is concerned?

- ◆ I believe that a child who wants to learn will achieve the same as a pupil who comes from a 'better', in inverted commas, family background, but this is more tiring. S/he can do that, but it will be more tiring than for a child who was born in an environment where people discuss, read, learn, compared with a child where the only thing they buy is a TV magazine.

-Let us see how this will affect assessment. Let us guess that in a theoretical subject you have a pupil who writes in a test all the information that you ask for, expressed in a linguistically correct way and another pupil gives you the information expressed in incorrect language. Will you give them the same grades?

- ◆ If the language expression is bad, then they will not get the same grade; because I have

experience from villages where the educational and the social level is very low. For me, if the text is correct, either if it has got beautiful words or if it is simple, it will be the same. If the text has mistakes in language, then it is not the same.

-Let me ask you something else now. Do you believe that assessment is relevant to the school or not? And let me explain what I mean. Do you think that a pupil who got an 8 in your class would get an 8 in any school or is it just an 8 for your school?

- ◆ No, not at all not in Greece at least. Because a 10 in xxxxx, the village where I teach, is an 8 in xxxxx (the big town of the area), and a 10 in xxxxx is an 8 in the university schools of xxxxxx. We cannot compare children like this. The grade is the result of a comparison of children among themselves. What I do, and all of us, what we do is to compare the members of the class among themselves. Out of the 12 children that I have this year, this one is the best and this one the worst. I cannot compare them with a child from xxxxx who has totally different experiences from those children. I remember that I had to teach in a village once a text with two jokes. One of them was about a theatre where someone bought a ticket, and he bought it again etc. Children did not laugh there. And when I asked them I realised that they did not understand it because they had never gone to the theatre, they did not know what a theatre is. I cannot therefore compare those children with the children of xxxxx who more or less 90 per cent of them have gone to the theatre and seen a performance, and regardless the quality of the performance, at least know what a theatre is.

-Do your personal contacts with the parents affect your assessment? Let us consider it indirectly first. Do you agree that the more the parent is interested, the more the child achieves?

- ◆ Yes. The child knows that the parent has a contact with the teacher, knows that if s/he misbehaves or s/he comes to school without studying the parent will know that, and I believe that the children whose parents have a contact with the teacher have a better

relationship with the teacher; because I see that the children whose parents I have contact with, are more affectionate with me, and I am not talking about personal contacts, having coffee together and things like that, simply they come to school, we have a chat and this kind of thing. These children are more affectionate.

-Does this affect your grading directly? Does the fact that the parent comes to school affect you in giving him/her a better grade?

- ◆ No, external factors do not affect me as far as grading is concerned. There was a case when I had a big fight with one parent, but that child was an excellent pupil so he got a 10. My relationship with the parents does not affect me.

-Do you receive pressure from people that you know to give higher grades to specific children?

- ◆ No because I do not work in xxxx (the place where she lives) and this is the reason that I do not want to come to xxxxx. I understand what you say, a friend asking me to give a higher grade to a child. I experienced that once at a school, from a colleague whose child was in my class, and I felt extremely bad, thank God the child was a very good pupil, but the mother wanted me to give her a higher grade than the other children. She claimed that because her daughter got a 10 the other children should not. And I told her that it was impossible since the other children were as good. I receive pressure, but I do not discriminate against children. And I will never do it.

-What about your colleagues?

- ◆ I don't know. I cannot tell you.

-Anyway, do you believe that your colleagues assess in a different way than you?

- ◆ I believe that every teacher assesses according to the way that he thinks.

-Can you be more specific about the ways that other teachers assess?

◆ I cannot tell you.

-All right. Do you want to add anything that we did not touch on?

◆ No.

-That was it. Thank you very much.

Appendix 1.2 The Questionnaire

My name is D. Zbainos and I am doing a PhD at the Institute of Education, University of London. The subject of my research are the criteria according to which Greek primary school teachers assign grades to their pupils.

This questionnaire includes a number of criteria that some of your colleagues have stated that they affect their grading. I would be very grateful if you completed it just by stating your degree of agreement or disagreement with them. It will not take you more than ten minutes.

Your answers are confidential and the results of their analysis will be used only within the framework of my doctoral thesis and not for any other purpose.

QUESTIONNAIRE

Please answer all the questions.

A. Participants' demographic characteristics

1. Gender _____

2. Years of work. (Total) _____

a. In rural areas: _____

b. In semi-rural areas : _____

c. In urban areas : _____

d. Now I wok in a(n) _____ area with _____ year group.

e. Most of the years in the past I have worked with _____ year groups.

3. Degree(s) or certificate(s) I hold: _____

4. I have taken an INSET course yes no (delete as appropriate)

If yes when and where?

In the rest of the questionnaire please mark the box next to the number according to your level of agreement.

1 (Strongly disagree)

2 (Disagree)

3 (Middle position: Almost agree/ Almost disagree)

4 (Agree)

5 (Strongly Agree)

B. Assessment of pupils' academic attainment

1. Testing

1. When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests.

1

2

3

4

5

(If your answer is 1 or 2 please answer questions 1a and 1b)

(1a). I do not take them into account because they only represent the ability of the pupil to memorise

1 2 3 4 5

(1b). I do not take them into account because pupils may know the answers in advance.

1 2 3 4 5

2. When I assign grades the main source of information is the tests I devise myself.

1 2 3 4 5

3. Tests, formal and informal only contribute to the overall picture of the pupil.

1 2 3 4 5

2. Classroom participation

(Classroom participation includes the oral, written or the overall participation of the pupil in the tasks that take place in the classroom under the supervision of the teacher).

1. Classroom participation is one of the most important criteria that I take into account for final grading.

1 2 3 4 5

2. I do not take it into account because it is biased against shy and withdrawn pupils.

1 2 3 4 5

3. Classroom participation only contributes to the overall picture of the pupil.

1 2 3 4 5

3. Homework.

(Homework includes the exercises (grammar, mathematics, spelling etc) which might be given by the teacher to be done at home and not the preparation of the unit after which may excessively be carried out by some pupils.)

1. Homework should not be given. All of the work should take place at school.

1 2 3 4 5

2. When I assign grades I take into account diligence as it appears through homework preparation.

1 2 3 4 5

3. Homework preparation only contributes to the overall picture of the pupil.

1 2 3 4 5

C. Factors affecting pupils' academic attainment

1. Family.

1. The material environment (good or bad living conditions) affects pupils' attainment.

1 2 3 4 5

2. The psychological environment in which a pupil lives affects his/her attainment.

1 2 3 4 5

If your answer is 4 or 5, please answer questions 2a, 2b, 2c and 2d.

Factors that affect the psychological condition of the pupil:

(2a). Divorce 1 2 3 4

(2b). Family discord 1 2 3 4

(2c). Death of a parent 1 2 3 4

(2d). Relationships with friends 1 2 3 4

3. Cooperation between parents and teachers results in pupils' higher attainment.

1 2 3 4 5

If your answer is 4 or 5 please answer questions 3a and 3b.

This happens because:

(3a). Parents who are interested in their children' progress help them more.

1 2 3 4 5

(3b). Pupils who are aware of cooperation between their parents and teachers tend to work harder.

1 2 3 4 5

4. The higher the educational level of the family the higher the attainment of their children.

1 2 3 4 5

If your answer is 4 or 5 please answer questions 4a , 4b and 4c.

This happens because:

(4a). Uneducated parents have a negative predisposition towards school

1 2 3 4 5

(4b). Uneducated parents do not provide enough educational material to their children.

1 2 3 4 5

(4c). Educated parents transmit more knowledge and therefore their children attain more.

1 2 3 4 5

5. The higher the financial level of the family the higher their children' attainment.

1 2 3 4 5

6. School as an institution may compensate for the potentially negative effects of a potential disadvantaged family background.

1 2 3 4 5

7. It is part of teachers' work to give additional help to children who come from disadvantaged family backgrounds.

1 2 3 4 5

2.Linguistic level.

(Linguistic level includes the vocabulary that a pupil may use as well as the ability of use of language such as linguistic expression, correct syntax, ease in speech etc.)

1. Pupils' linguistic ability is determined by his/her family background.

1 2 3 4 5

2. Linguistic ability is related to higher attainment in oral tasks.

1 2 3 4 5

3. Linguistic ability is related to higher attainment in written tasks.

1 2 3 4 5

4. The linguistic ability of pupils may improve through:

a. School. 1 2 3 4 5

b. Television. 1 2 3 4 5

c. Reading. 1 2 3 4 5

d. Interaction with adults. 1 2 3 4 5

e. Interaction with peers. 1 2 3 4 5

3.Intelligence

1. In the class there are pupils with different intelligence

1 2 3 4 5

If your answer is 4 or 5 please answer questions 1a, 1b, 1c, 1d , 1e and 2.

Differences in intelligence can be seen:

(1a). In the ease of learning. 1 2 3 4 5

- (1b). In the speed of learning. 1 2 3 4 5
- (1c). In the quality of learning. (Critical thinking, connection of new to previous knowledge, search for reasons why something happens). 1 2 3 4 5
- (1d). In the questions asked by the pupil. 1 2 3 4 5
- (1e). In out-of-school activities. 1 2 3 4 5
- (2). Differences in intelligence are related to differences in attainment.
1 2 3 4 5

4. Motivation

1. Pupils who make an effort attain more. 1 2 3 4 5
2. Pupils who show interest attain more. 1 2 3 4 5
3. Pupils who themselves set aims for their future attain more. 1 2 3 4 5
4. Pupils whose parents set aims for their future attain more. 1 2 3 4 5
5. High grades motivate pupils to work harder. 1 2 3 4 5
6. Low grades motivate pupils to work harder. 1 2 3 4 5
7. Usage of rewards and punishments by parents contributes to the higher attainment of the pupils. 1 2 3 4 5

D. Factors affecting grading.

(Factors affecting grading include those factors which may contribute so that a pupil may be graded with grades higher or lower than his/her attainment.)

1. Family

1. I will assign grades higher than their attainment to pupils whose parents show interest in their children's progress. 1 2 3 4 5
2. I have been asked by friends, relatives etc to assign grades higher than their attainment to some pupils. 1 2 3 4 5

3. I have assigned at least once grades higher than attainment to children of friends relatives, etc.

1 2 3 4 5

4. I have assigned grades higher than their attainment to children of eminent families of the community (heads of local authorities, upper civil servants etc).

1 2 3 4 5

2. Language

1. At the end of term I assign grades higher than their attainment to pupils with a special linguistic ability.

1 2 3 4 5

2. A written examination entry (in a non language subject) expressed in correct language will get a higher grade than an examination entry containing the same information expressed with linguistic mistakes.

1 2 3 4 5

3. An oral examination entry (in a non language subject) will be assessed more favourably when the pupil has a special linguistic ability.

1 2 3 4 5

3. Intelligence

At the end of term I will assign grades higher than their attainment to pupils that I consider to be clever.

1 2 3 4 5

4. Motivation

1. I will assign grades higher than their attainment to pupils because they try hard.

1 2 3 4 5

2. I will assign grades higher than their attainment to pupils because they show interest in some subjects.

1 2 3 4 5

3. I will assign grades higher than their attainment to pupils because they have set aims for their futures.

1 2 3 4 5

5. Behaviour

1. I will assign grades lower than their attainment grades to pupils with disruptive behaviour.

1 2 3 4 5

2. I will assign grades higher than their attainment to pupils with disciplined behaviour.

1 2 3 4 5

3. Low attainment results in disruptive behaviour.

1 2 3 4 5

6. Teachers' personal likes.

1. Willingly or not, I like some pupils more than others.

1 2 3 4 5

If your answer is 4 or 5 please answer questions 1a , 1b, 1c, 1d, 1e and 2.

Personal likes are created by taking into account:

(1a). The appearance of the pupil. 1 2 3 4 5

(1b). The character of the pupil. 1 2 3 4 5

(1c). The family of the pupil. 1 2 3 4 5

(1d). The attainment of the pupil. 1 2 3 4 5

(1e). The behaviour of the pupil 1 2 3 4 5

(2). Personal likes affect me willingly or not, to a greater or to a lesser degree in assigning grades.

1 2 3 4 5

7. Differential attainment in different subjects.

1. Pupils' attainment is different in different subjects.

1 2 3 4 5

If your answer is 4 or 5 please answer questions 1a and 1b.

(1a). High attainment in some subjects affects in a positive way my grading in others.

1 2 3 4 5

(1b). Low attainment in some subjects affects in a negative way my grading in others.

1 2 3 4 5

8. Pupils awareness of their attainment in relation to others.

1. Pupils are aware of their attainment in relation to others.

1 2 3 4 5

If your answer is 4 or 5, please answer question 1a.

(1a). Pupils' awareness of attainment is taken into account when they are graded. (I will not give low grades to those who are considered 'high achievers' nor high to 'low achievers' in order not to disturb the sense of justice of the class).

1 2 3 4 5

9. Relativity of grading

(It is examined here whether one particular grade of a particular class of a particular school is comparative with another grade of the same year group in another school of Greece.)

1. My grading is relevant to certain school factors and shows similarities and differences within the particular class. (The same grade may mean totally different things in another class in another school.

1 2 3 4 5

If your answer is 4 or 5 please answer questions 1a 1b and 1c.

My grades take a different meaning and value according to:

(1a). The educational level of the pupils of the class.

1 2 3 4 5

(1b). The social background of the majority of pupils.

1 2 3 4 5

(1c). The geographical area where the school is situated.

1 2 3 4 5

E. General remarks regarding grading.

1. Grading should not take place in the primary school.

1 2 3 4 5

2. The grading scale should be numerical so the differences among pupils are more evident.

1 2 3 4 5

3. Other teachers assess in the same way as me..

1 2 3 4 5

4. The basic differences between me and my colleagues are the following:

If you want to express any comments about the questionnaire please use the space provided here. Use the next page if needed)

Table 2.1

repeated measures t-tests between mean levels of agreement with statements indicating factors which affect the psychological condition of pupils					
STATEMENTS	N	Mean	Std Dev.	t value	p
Factors that affect the psychological condition of the pupil: C.1.2.a. Divorce.	467	4.3062	.692	-3.24	.001
C.1.2.b. Family discord.	467	4.3940	.631		
Factors that affect the psychological condition of the pupil: C.1.2.a. Divorce.	467	4.3062	.692	-4.60	.000
C.1.2.c. Death of a parent.	467	4.4433	.673		
Factors that affect the psychological condition of the pupil: C.1.2.a. Divorce.	467	4.3062	.692	11.76	.000
C.1.2.d. Relationships with friends.	467	3.8630	.749		
Factors that affect the psychological condition of the pupil: C.1.2.b. Family discord.	467	4.3940	.631	-1.73	.084
C.1.2.c. Death of a parent.	467	4.4433	.673		
Factors that affect the psychological condition of the pupil: C.1.2.b. Family discord.	467	4.3940	.631	15.24	.000
C.1.2.d. Relationships with friends.	467	3.8630	.749		
Factors that affect the psychological condition of the pupil: C.1.2.c. Death of a parent.	467	4.4433	.673	15.28	.000
C.1.2.d. Relationships with friends.	467	3.8630	.749		

Table 2.2

repeated measures t-tests between mean levels of agreement with statements indicating factors which improve pupils' linguistic ability					
STATEMENTS	N	Mean	Std Dev.	t value	p
The linguistic ability of pupils may improve through C.2.4.a. School.	472	4.1610	.586	28.83	.000
C.2.4.b. Television.	472	2.7076	.962		
The linguistic ability of pupils may improve through C.2.4.a. School.	472	4.1610	.586	-12.11	.000
C.2.4.c. Reading.	472	4.5191	.593		
The linguistic ability of pupils may improve through C.2.4.a. School.	472	4.1610	.586	5.98	.000
C.2.4.d. Interaction with adults.	472	3.9428	.710		
The linguistic ability of pupils may improve through C.2.4.a. School.	472	4.1610	.586	12.33	.000
C.2.4.e. Interaction with peers.	472	3.6525	.789		
The linguistic ability of pupils may improve through C.2.4.b. Television.	472	2.7076	.962	-33.55	.000
C.2.4.c. Reading.	472	4.5191	.593		
The linguistic ability of pupils may improve through C.2.4.b. Television.	472	2.7076	.962	-24.12	.000
C.2.4.d. Interaction with adults.	472	3.9428	.710		
The linguistic ability of pupils may improve through C.2.4.b. Television.	472	2.7076	.962	-19.56	.000
C.2.4.e. Interaction with peers.	472	3.6525	.789		
The linguistic ability of pupils may improve through C.2.4.c. Reading.	472	4.5191	.593	16.26	.000
C.2.4.d. Interaction with adults.	472	3.9428	.710		
The linguistic ability of pupils may improve through C.2.4.c. Reading.	472	4.5191	.593	20.67	.000
C.2.4.e. Interaction with peers.	472	3.6525	.789		
The linguistic ability of pupils may improve through C.2.4.d. Interaction with adults.	472	3.9428	.710	7.18	.000
C.2.4.e. Interaction with peers.	472	3.6525	.789		

Table 2.3

repeated measures t-tests between mean levels of agreement with statements indicating where intelligence can be seen					
STATEMENTS	N	Mean	Std Dev.	t value	p
Differences in intelligence can be seen C.3.1.a. In the ease of learning.	446	3.9821	.690	-.77	.442
C.3.1.b. In the speed of learning.	446	4.0000	.716		
Differences in intelligence can be seen C.3.1.a. In the ease of learning.	446	3.9821	.690	-11.78	.000
C.3.1.c. In the quality of learning. (Critical thinking, connection of new to previous knowledge, search for reasons why something happens).	446	4.3879	.614		
Differences in intelligence can be seen C.3.1.a. In the ease of learning.	446	3.9821	.690	-2.58	.010
C.3.1.d. In the questions asked by the pupil.	446	4.0762	.673		
Differences in intelligence can be seen C.3.1.a. In the ease of learning.	446	3.9821	.690	8.44	.000
C.3.1.e. In out-of-school activities.	446	3.6278	.830		
Differences in intelligence can be seen C.3.1.b. In the speed of learning.	446	4.0000	.716	-10.64	.000
C.3.1.c. In the quality of learning. (Critical thinking, connection of new to previous knowledge, search for reasons why something happens).	446	4.3879	.614		
Differences in intelligence can be seen C.3.1.b. In the speed of learning.	446	4.0000	.716	-2.16	.031
C.3.1.d. In the questions asked by the pupil.	446	4.0762	.673		
Differences in intelligence can be seen C.3.1.b. In the speed of learning.	446	4.0000	.716	8.62	.000
C.3.1.e. In out-of-school activities.	446	3.6278	.830		
Differences in intelligence can be seen C.3.1.c. In the quality of learning. (Critical thinking, connection of new to previous knowledge, search for reasons why something happens).	446	4.3879	.614	9.93	.000
C.3.1.d. In the questions asked by the pupil.	446	4.0762	.673		
Differences in intelligence can be seen C.3.1.c. In the quality of learning. (Critical thinking, connection of new to previous knowledge, search for reasons why something happens).	446	4.3879	.614	17.96	.000
C.3.1.e. In out-of-school activities.	446	3.6278	.830		
Differences in intelligence can be seen C.3.1.d. In the questions asked by the pupil.	446	4.0762	.673	11.38	.000
C.3.1.e. In out-of-school activities.	446	3.6278	.830		

Table 2.4

repeated measures t-tests between mean levels of agreement with statements indicating motives which affect attainment					
STATEMENTS	N	Mean	Std Dev.	t value	p
C.4.2. Pupils who show interest attain more.	472	4.0678	.593	-5.04	.000
C.4.3. Pupils who themselves set aims for their future attain more.	472	4.2267	.703		
C.4.2. Pupils who show interest attain more.	472	4.0678	.593	29.06	.000
C.4.4. Pupils whose parents set aims for their future attain more.	472	2.7924	.844		
C.4.2. Pupils who show interest attain more.	472	4.0678	.593	19.50	.000
C.4.5. High grades motivate pupils to work harder.	472	3.2733	.725		
C.4.2. Pupils who show interest attain more.	472	4.0678	.593	30.45	.000
C.4.6. Low grades motivate pupils to work harder.	472	2.7542	.713		
C.4.2. Pupils who show interest attain more.	472	4.0678	.593	22.74	.000
C.4.7. Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.	472	3.0784	.796		
C.4.3. Pupils who themselves set aims for their future attain more.	472	4.2267	.703	30.55	.000
C.4.4. Pupils whose parents set aims for their future attain more.	472	2.7924	.844		
C.4.3. Pupils who themselves set aims for their future attain more.	472	4.2267	.703	21.86	.000
C.4.5. High grades motivate pupils to work harder.	472	3.2733	.725		
C.4.3. Pupils who themselves set aims for their future attain more.	472	4.2267	.703	32.31	.000
C.4.6. Low grades motivate pupils to work harder.	472	2.7542	.713		
C.4.3. Pupils who themselves set aims for their future attain more.	472	4.2267	.703	24.98	.000
C.4.7. Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.	472	3.0784	.796		
C.4.4. Pupils whose parents set aims for their future attain more.	472	2.7924	.844	-11.09	.000
C.4.5. High grades motivate pupils to work harder.	472	3.2733	.725		
C.4.4. Pupils whose parents set aims for their future attain more.	472	2.7924	.844	.85	.396
C.4.6. Low grades motivate pupils to work harder.	472	2.7542	.713		
C.4.4. Pupils whose parents set aims for their future attain more.	472	2.7924	.844	-6.15	.000
C.4.7. Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.	472	3.0784	.796		

C.4.5. High grades motivate pupils to work harder.	472	3.2733	.725	12.15	.000
C.4.6. Low grades motivate pupils to work harder.	472	2.7542	.713		
C.4.5. High grades motivate pupils to work harder.	472	3.2733	.725	4.49	.000
C.4.7. Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.	472	3.0784	.796		
C.4.6. Low grades motivate pupils to work harder.	472	2.7542	.713	-7.55	.000
C.4.7. Usage of rewards and punishments by parents contributes to the higher attainment of the pupils.	472	3.0784	.796		

Table 2.5

repeated measures t-tests between mean levels of agreement with statements indicating family factors which affect grading					
STATEMENTS	N	Mean	Std Dev.	t value	p
D.1.1. I assign grades higher than their attainment to pupils whose parents show interest in their children's progress.	472	2.2161	.771	6.32	.000
D.1.3. I have assigned at least once grades higher than attainment to children of friends relatives, etc.	472	1.9004	.984		
D.1.1. I assign grades higher than their attainment to pupils whose parents show interest in their children's progress.	472	2.2161	.771	11.61	.000
D.1.4. I have assigned grades higher than their attainment to children of eminent families in the community (heads of local authorities, upper civil servants etc).	472	1.6949	.822		
D.1.3. I have assigned at least once grades higher than attainment to children of friends relatives, etc.	472	1.9004	.984	6.19	.000
D.1.4. I have assigned grades higher than their attainment to children of eminent families in the community (heads of local authorities, upper civil servants etc).	472	1.6949	.822		

Table 2.6

repeated measures t-tests between mean levels of agreement with statements indicating how personal likes are created					
STATEMENTS	N	Mean	Std Dev.	t value	p
Personal likes are created by taking into account: D.6.1a. The appearance of the pupil.	249	2.5863	1.060	-20.65	.000
D.6.1b. The character of the pupil.	249	4.1526	.569		
Personal likes are created by taking into account: D.6.1a. The appearance of the pupil.	249	2.5863	1.060	3.28	.001
D.6.1c. The family of the pupil.	249	2.3655	.946		
Personal likes are created by taking into account: D.6.1a. The appearance of the pupil.	249	2.5863	1.060	-12.88	.000
D.6.1d. The attainment of the pupil.	249	3.5944	.938		
Personal likes are created by taking into account: D.6.1a. The appearance of the pupil.	249	2.5863	1.060	-20.59	.000
D.6.1e. The behaviour of the pupil.	249	4.1727	.689		
Personal likes are created by taking into account: D.6.1b. The character of the pupil.	249	4.1526	.569	26.00	.000
D.6.1c. The family of the pupil.	249	2.3655	.946		
Personal likes are created by taking into account: D.6.1b. The character of the pupil.	249	4.1526	.569	8.68	.000
D.6.1d. The attainment of the pupil.	249	3.5944	.938		
Personal likes are created by taking into account: D.6.1b. The character of the pupil.	249	4.1526	.569	-.45	.650
D.6.1e. The behaviour of the pupil.	249	4.1727	.689		
Personal likes are created by taking into account: D.6.1c. The family of the pupil.	249	2.3655	.946	-17.75	.000
D.6.1d. The attainment of the pupil.	249	3.5944	.938		
Personal likes are created by taking into account: D.6.1c. The family of the pupil.	249	2.3655	.946	-26.34	.000
D.6.1e. The behaviour of the pupil.	249	4.1727	.689		
Personal likes are created by taking into account: D.6.1d. The attainment of the pupil.	249	3.5944	.938	-10.30	.000
D.6.1e. The behaviour of the pupil.	249	4.1727	.689		

Table 2.7

repeated measures t-tests between mean levels of agreement with statements indicating school factors which affect the meaning and value of grades					
STATEMENTS	N	Mean	Std Dev.	t value	p
My grades take a different meaning and value according to: D.9.1.a. The educational level of the pupils of the class.	361	4.0388	.510	11.35	.000
D.9.1.b. The social background of the majority of pupils.	361	3.5291	.897		
My grades take a different meaning and value according to: D.9.1.a. The educational level of the pupils of the class.	361	4.0388	.510	12.11	.000
D.9.1.c. The geographical area where the school is situated.	361	3.4681	.904		
My grades take a different meaning and value according to: D.9.1.b. The social background of the majority of pupils.	361	3.5291	.897	1.72	.086
D.9.1.c. The geographical area where the school is situated.	361	3.4681	.904		

Table 3.1
 Example of cluster analysis of section B of the questionnaire of a randomly selected
 sample of 30 cases

Cluster Membership of Cases using Average Linkage (Between Groups)

Label	Case	Number of Clusters			
		5	4	3	2
Case 9	1	1	1	1	1
Case 12	2	1	1	1	1
Case 20	3	2	1	1	1
Case 29	4	1	1	1	1
Case 32	5	1	1	1	1
Case 72	6	1	1	1	1
Case 79	7	1	1	1	1
Case 117	8	1	1	1	1
Case 126	9	1	1	1	1
Case 138	10	3	2	1	1
Case 145	11	1	1	1	1
Case 146	12	1	1	1	1
Case 171	13	1	1	1	1
Case 173	14	1	1	1	1
Case 174	15	1	1	1	1
Case 175	16	1	1	1	1
Case 178	17	1	1	1	1
Case 180	18	4	3	2	2
Case 181	19	1	1	1	1
Case 209	20	1	1	1	1
Case 231	21	1	1	1	1
Case 256	22	1	1	1	1
Case 275	23	1	1	1	1
Case 287	24	1	1	1	1
Case 333	25	1	1	1	1
Case 336	26	1	1	1	1
Case 337	27	1	1	1	1
Case 370	28	1	1	1	1
Case 391	29	5	4	3	1
Case 431	30	1	1	1	1

Variable names for each of the statements of the questionnaire

B.1.1. When I assign grades at the end of term or school year, the main source of information for pupils' academic achievement is their attainment in formal ministry tests. (testsfor)

B.1.1.a. I do not take them into account because they only represent the ability of the pupil to memorise. (rotlear1)

B.1.1.b. I do not take them into account because pupils may know the answers in advance. (ansknow1)

B.1.2. When I assign grades the main source of information is the tests I devise myself. (owntests)

B.1.3. Tests, formal and informal, only contribute to the overall picture of the pupil. (testpict)

B.2.1. Classroom participation is one of the most important criteria that I take into account for final grading. (particip)

B.2.2. I do not take it into account because it is biased against shy and withdrawn pupils. (partshy)

B.2.3. Classroom participation only contributes to the overall picture of the pupil. (partpict)

B.3.1. Homework should not be given. All of the work should take place at school. (nohomewo)

B.3.2. When I assign grades I take into account diligence as it appears through homework preparation. (yeshomew)

B.3.3. Homework preparation only contributes to the overall picture of the pupil. (hompict)

C.1.1. The material environment (good or bad living conditions) affects pupils' attainment. (fammater)

C.1.2. The psychological environment in which a pupil lives affects his/her attainment. (fampsychn)

C.1.2.a. Factors that affect the psychological condition of the pupil:
Divorce. (divorc1)

C.1.2.b. Family discord. (discor1)

C.1.2.c. Death of a parent. (death1)

C.1.2.d. Relationships with friends. (friends1)

C.1.3. Cooperation between parents and teachers results in pupils' higher attainment. (famcoop)

C.1.3.a. This happens because:
Parents who are interested in their children' progress help them more. (faminte1)

C.1.3.b. Pupils who are aware of cooperation between their parents and teachers tend to work harder. (famkno1)

C.1.4. The higher the educational level of the family the higher the attainment of their children. (fameduca)

C.1.4.a. This happens because:

Uneducated parents have a negative predisposition towards school. (famnega1)

C.1.4.b. Uneducated parents do not provide enough educational material for their children. (famoffe1)

C.1.4.c. Educated parents transmit more knowledge and therefore their children attain more. (famknow1)

C.1.5. The higher the financial level of the family the higher their children' attainment. (famfinan)

C.1.6. School as an institution may compensate for the potentially negative effects of a disadvantaged family background. (schcompe)

C.1.7. It is part of teachers' work to give additional help to children who come from disadvantaged family backgrounds. (teacompe)

C.2.1. A Pupil's linguistic ability is determined by his/her family background. (langfaml)

C.2.2. Linguistic ability is related to higher attainment in oral tasks. (langoral)

C.2.3. Linguistic ability is related to higher attainment in written tasks. (langwrit)

The linguistic ability of pupils may improve through

C.2.4.a. School. (schlimpr)

C.2.4.b. Television. (tvimprln)

C.2.4.c. Reading. (readimpr)

C.2.4.d. Interaction with adults. (adulimpr)

C.2.4.e. Interaction with peers. (peerimpr)

C.3.1. In the class there are pupils with different intelligence. (intdiffr)

Differences in intelligence can be seen

C.3.1.a. In the ease of learning. (intleas1)

C.3.1.b. In the speed of learning. (intspee1)

C.3.1.c. In the quality of learning. (Critical thinking, connection of new to previous knowledge, search for reasons why something happens). (intqual1)

C.3.1.d. In the questions asked by the pupil. (intques1)

C.3.1.e. In out-of-school activities. (intactil)

C.3.2. Differences in intelligence are related to differences in attainment. (intlaln1)

C.4.1. Pupils who make an effort attain more. (moteffor)

C.4.2. Pupils who show interest attain more. (motinter)

C.4.3. Pupils who themselves set aims for their future attain more. (motaim)

C.4.4. Pupils whose parents set aims for their future attain more. (motfmaim)

C.4.5. High grades motivate pupils to work harder. (mothg)

C.4.6. Low grades motivate pupils to work harder. (motlg)

C.4.7. Usage of rewards and punishments by parents contributes to the higher attainment of the pupils. (motfirp)

D.1.1. I assign grades higher than their attainment to pupils whose parents show interest in their children's progress. (hgfinter)

D.1.2. I have been asked by friends, relatives etc to assign grades higher than their attainment to some pupils. (hgpressu)

D.1.3. I have assigned at least once higher than attainment grades to children of friends relatives, etc. (hgfrelat)

D.1.4. I have assigned grades higher than their attainment to children of eminent families in the community (heads of local authorities, upper civil servants etc). (hgfemine)

D.2.1. At the end of term I assign grades higher than their attainment to pupils with a special linguistic ability. (hglang)

D.2.2. A written examination entry (in a non-language subject) expressed in correct language will get a higher grade than an examination entry containing the same information expressed with linguistic mistakes. (hglantes)

D.2.3. An oral examination entry (in a non-language subject) will be assessed more favourably when the pupil has a special linguistic ability. (hgloral)

D.3.1. At the end of term I will assign grades higher than their attainment to pupils that I consider to be clever. (hgintel)

D.4.1. I will assign grades higher than their attainment to pupils because they try hard. (hgmeff)

D.4.2. I will assign grades higher than their attainment to pupils because they show interest in some subjects. (hgminter)

D.4.3. I will assign grades higher than their attainment to pupils because they have set aims for their futures. (hgmaims)

D.5.1. I will assign lower grades than their attainment to pupils with disruptive behaviour. (lgbehavi)

D.5.2. I will assign higher grades than their attainment to pupils with disciplined behaviour. (hgbehavi)

D.5.3. Low attainment results in disruptive behaviour. (gradbeh)

D.6.1. Willingly or not, I like some pupils more than others. (perlikes)

Personal likes are created by taking into account:

D.6.1a. The appearance of the pupil. (pllookl)

D.6.1b. The character of the pupil. (plcharal)

D.6.1c. The family of the pupil. (plfamill)

D.6.1d. The attainment of the pupil. (plattail)

D.6.1e. The behaviour of the pupil. (plbehavl)

D.6.2. Personal likes affect me willingly or not, to a greater or to a lesser degree in assigning grades. (hgperli1)

D.7.1. Pupils' attainment is different in different subjects. (diffatta)

D.7.2. High attainment in some subjects affects in a positive way my grading in others. (difatpo1)

D.7.3. Low attainment in some subjects affects in a negative way my grading in others. (difatne1)

D.8.1. Pupils are aware of their attainment in relation to others. (awaratt)

D.8.2. Pupils' awareness of attainment is taken into account when they are graded. (I will not give low grades to those who are considered 'high achievers' nor high to 'low achievers' in order not to disturb the sense of justice of the class. (awarjus1)

D.9.1. My grading is relative to certain school factors and shows similarities and differences within the particular class. (The same grade may mean totally different things in another class in another school. (relgrade)

My grades take a different meaning and value according to:

D.9.1.a. The educational level of the pupils of the class. (greledl1)

D.9.1.b. The social background of the majority of pupils. (grelsoc1)

D.9.1.c. The geographical area where the school is situated. (relgeo1)

D.10.1. Grading should not take place in the primary school. (noassess)

D.10.2. The grading scale should be numerical so the differences among pupils are more evident. (numscale)

D.10.3. Other teachers assess in the same way as me. (colleague)

Table 4.1
Factor Analysis of all statements of the questionnaires which produced non interpretable factors

- - - - - F A C T O R A N A L Y S I S - - - - -

Analysis number 1 Listwise deletion of cases with missing values

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
TESTSFOR	1.00000	*	1	8.63785	10.5	10.5
ROTLER1	1.00000	*	2	6.36711	7.8	18.3
ANSKNOW1	1.00000	*	3	4.41311	5.4	23.7
OWNTESTS	1.00000	*	4	4.07218	5.0	28.6
TESTPICT	1.00000	*	5	3.60354	4.4	33.0
PARTICIP	1.00000	*	6	3.24389	4.0	37.0
PARTSHY	1.00000	*	7	2.80838	3.4	40.4
PARTPICT	1.00000	*	8	2.73233	3.3	43.8
NOHOMEWO	1.00000	*	9	2.58138	3.1	46.9
YESHOMEW	1.00000	*	10	2.51522	3.1	50.0
HOMPICT	1.00000	*	11	2.26467	2.8	52.7
FAMMATER	1.00000	*	12	2.22051	2.7	55.4
FAMPSYCH	1.00000	*	13	1.99307	2.4	57.9
DIVORC1	1.00000	*	14	1.96931	2.4	60.3
DISCOR1	1.00000	*	15	1.83287	2.2	62.5
DEATH1	1.00000	*	16	1.67860	2.0	64.6
FRIENDS1	1.00000	*	17	1.62173	2.0	66.5
FAMCOOP	1.00000	*	18	1.61251	2.0	68.5
FAMINTE1	1.00000	*	19	1.50848	1.8	70.3
FAMKN01	1.00000	*	20	1.40151	1.7	72.0
FAMEDUCA	1.00000	*	21	1.38831	1.7	73.7
FAMNEGA1	1.00000	*	22	1.27435	1.6	75.3
FAMOFFE1	1.00000	*	23	1.17227	1.4	76.7
FAMKNOW1	1.00000	*	24	1.13398	1.4	78.1
FAMFINAN	1.00000	*	25	1.10038	1.3	79.4
SCHCOMPE	1.00000	*	26	1.05308	1.3	80.7
TEACOMPE	1.00000	*	27	1.05021	1.3	82.0
LANGFAML	1.00000	*	28	.96701	1.2	83.2
LANGORAL	1.00000	*	29	.95496	1.2	84.4
LANGWRIT	1.00000	*	30	.82409	1.0	85.4
SCHLIMPR	1.00000	*	31	.80659	1.0	86.3
TVIMPRLN	1.00000	*	32	.75815	.9	87.3
READIMPR	1.00000	*	33	.71479	.9	88.1
ADULIMPR	1.00000	*	34	.68977	.8	89.0

- - - - - F A C T O R A N A L Y S I S - - - - -

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
PEERIMPR	1.00000	*	35	.63173	.8	89.8
INTDIFFR	1.00000	*	36	.59940	.7	90.5
INTLEAS1	1.00000	*	37	.56915	.7	91.2
INTSPEE1	1.00000	*	38	.52869	.6	91.8
INTQUAL1	1.00000	*	39	.52004	.6	92.5
INTQUES1	1.00000	*	40	.48522	.6	93.0
INTACT11	1.00000	*	41	.48082	.6	93.6
INTLATN1	1.00000	*	42	.46284	.6	94.2
MOTEFFOR	1.00000	*	43	.42477	.5	94.7
MOTINTER	1.00000	*	44	.39361	.5	95.2
MOTAIM	1.00000	*	45	.37820	.5	95.7
MOTFMAIM	1.00000	*	46	.36353	.4	96.1
MOTHG	1.00000	*	47	.33591	.4	96.5
MOTLG	1.00000	*	48	.26561	.3	96.8
MOTFRP	1.00000	*	49	.25484	.3	97.1
HGFINTER	1.00000	*	50	.24218	.3	97.4
HGPRESSU	1.00000	*	51	.21814	.3	97.7
HGFRELAT	1.00000	*	52	.21142	.3	98.0
HGFEMINE	1.00000	*	53	.19056	.2	98.2
HGLANG	1.00000	*	54	.18415	.2	98.4
HGLANTES	1.00000	*	55	.16200	.2	98.6
HGLORAL	1.00000	*	56	.15664	.2	98.8
HGINTEL	1.00000	*	57	.14102	.2	99.0
HGMEFF	1.00000	*	58	.11381	.1	99.1
HGMINTER	1.00000	*	59	.10110	.1	99.2
HGMAIMS	1.00000	*	60	.09568	.1	99.4
LGBEHAVI	1.00000	*	61	.07645	.1	99.5
HGBEHAVI	1.00000	*	62	.06999	.1	99.5
GRADBEH	1.00000	*	63	.06180	.1	99.6
PERLIKES	1.00000	*	64	.05538	.1	99.7
PLLOOK1	1.00000	*	65	.04918	.1	99.7
PECHARA1	1.00000	*	66	.04097	.0	99.8
PLFAMIL1	1.00000	*	67	.03364	.0	99.8
PLATTAIL	1.00000	*	68	.03303	.0	99.9
PLBEHAV1	1.00000	*	69	.02375	.0	99.9
HGPERLI1	1.00000	*	70	.02036	.0	99.9
DIFFATTA	1.00000	*	71	.01570	.0	99.9
DIFATPO1	1.00000	*	72	.01353	.0	100.0
DIFATNE1	1.00000	*	73	.01003	.0	100.0
AWARATT	1.00000	*	74	.00809	.0	100.0
AWARJUS1	1.00000	*	75	.00559	.0	100.0
RELGRADE	1.00000	*	76	.00287	.0	100.0
GRELEDL1	1.00000	*	77	.00133	.0	100.0
GRELSOC1	1.00000	*	78	.00109	.0	100.0
GRELGEO1	1.00000	*	79	.00000	.0	100.0
NOASSESS	1.00000	*	80	.00000	.0	100.0
NUMSCALE	1.00000	*	81	.00000	.0	100.0

- - - - - F A C T O R A N A L Y S I S - - - - -

Variable	Communality *	Factor	Eigenvalue	Pct of Var	Cum Pct
COLEAGUE	1.00000 *	82	.00000	.0	100.0

PC extracted 27 factors.

Factor Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
TESTSFOR	-.20308	.25103	.03675	-.35214	.08091
ROTLAR1	-.02661	.17616	-.00489	-.05059	.33201
ANSKNOW1	.14381	-.12387	-.00267	-.05338	.18249
OWNTESTS	.40086	.18483	.07841	-.35992	.12269
TESTPICT	.38971	-.13895	-.17054	.01893	-.25072
PARTICIP	.26065	.03906	-.01329	-.10344	-.25415
PARTSHY	-.06055	-.01578	.23007	.08631	.33645
PARTPICT	.06205	-.04935	-.13252	-.15096	.34044
NOHOMWO	-.08637	.15970	.04098	.13985	.13002
YESHOMEW	.07670	-.16779	.07465	.02910	-.22159
HOMPICT	.12225	.03454	-.26264	-.09612	.26029
FAMMATER	.39582	-.36750	-.00879	.22670	-.12844
FAMPSYCH	.35538	-.39011	-.07536	.32823	-.05748
DIVORC1	.47674	-.37293	.40900	-.17587	.08599
DISCOR1	.55044	-.37259	.44894	-.10603	.14787
DEATH1	.59456	-.50009	.29125	-.06281	-.04720
FRIENDS1	.18602	-.18125	.52980	-.12468	.04341
FAMCOOP	.03430	-.27082	-.22722	.17141	-.15484
FAMINTE1	.33541	.11948	-.29676	.13198	-.24916
FAMKNO1	.47040	.26663	-.08626	.26619	.09330
FAMEDUCA	.25429	-.19237	-.17325	.14833	-.30445
FAMNEGAL	.27696	.47356	-.10351	-.04378	.25305
FAMOFFE1	.21913	.34662	-.17174	.00714	.30952
FAMKNOW1	.32511	.31679	-.18815	-.09590	-.21500
FAMFINAN	.45325	.18199	-.00820	.34181	-.06008
SCHCOMPE	.13789	-.12241	-.01294	-.01676	-.02839
TEACOMPE	.26879	-.28120	-.09148	.20737	.05307
LANGFAML	.36250	-.07134	-.11388	.40775	-.05206
LANGORAL	.37832	.09100	-.10117	.34282	-.38175
LANGWRIT	.36809	.24183	-.14217	.30211	-.16572
SCHLIMPR	.33805	-.32100	.05214	-.12723	.12280
TVIMPRLN	-.08484	-.25634	.42733	.26669	-.09703
READIMPR	.32230	-.35345	-.15121	-.05238	.22194
ADULIMPR	.06476	-.34444	.26886	.05780	.09888
PEERIMPR	-.00153	-.26645	.54985	.22156	-.02592
INTDIFFR	.45969	-.01505	-.16979	.03018	-.26013
INTLEAS1	.69825	-.11434	.31047	-.17380	.00970

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	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
INTSPEE1	.73247	-.02828	.13820	-.38884	.16561
INTQUAL1	.67097	-.37567	.11722	-.32490	-.06143
INTQUES1	.64559	-.16445	.08706	-.37165	.05888
INTACT11	.56559	.06881	.15239	-.31744	.23221
INTLATN1	.41287	.35158	-.24162	-.07668	-.09638
MOTEFFOR	.40390	.35531	-.22552	.01012	-.07668
MOTINTER	.31943	.13714	-.19658	.22338	.00748
MOTAIM	.38072	-.08887	-.20409	.06487	.17001
MOTFMAIM	.19695	.42895	-.28443	.31679	.25127
MOTHG	.22808	.24733	-.39561	-.18782	.19362
MOTLG	.21620	.07089	-.23896	-.08897	.40433
MOTFRP	.05731	.47416	-.31587	-.02505	.26947
HGFINTER	.01449	.43640	.37532	.05206	-.11046
HGPRESSU	-.13277	.22116	-.13706	-.22437	-.46237
HGFRELAT	.05959	.57095	.34858	-.05375	-.45165
HGFEMINE	-.06195	.57312	.28570	-.00067	-.35423
HGLANG	.12490	.33910	.25368	.12687	-.06935
HGLANTES	-.05982	-.05816	.18928	-.43212	.02775
HGLORAL	.05162	.21072	.16620	-.42426	-.31889
HGINTEL	.09444	.47610	.15230	-.04927	.41128
HGMEFF	.28025	.17771	.15704	.13979	.00525
HGMINTER	.30857	.21651	-.02903	.21682	.20301
HGMATMS	.04839	.22724	.10820	.22051	.42969
LGBEHAVI	.22857	.34577	.11809	.05370	.19004
HGBEHAVI	.22014	.52822	.18307	.04585	.06686
GRADBEH	.21313	.36086	-.02929	.21592	-.27103
PERLIKES	.47488	-.02598	-.19300	.23794	-.14657
PLLOOK1	.42555	.20203	.21596	.09264	.10088
PLCHARA1	.33980	.10006	-.31650	.03729	-.19136
PLFAMIL1	.40006	.31949	.26035	.04044	.06901
PLATTAI1	.42268	.36143	.14478	-.16096	.05220
PLBEHAV1	.64529	.09289	-.09732	-.31384	-.14010
HGPERLI1	.18082	.39263	.37484	-.12246	-.23613
DIFFATTA	.42591	-.09060	-.39220	-.01901	.00365
DIFATPO1	.01978	.40948	.47867	.23889	-.17307
DIFATNE1	-.02196	.42549	.39440	.05189	-.13663
AWARATT	.39838	-.27935	-.19383	.09719	-.09140
AWARJUS1	-.01326	.24241	.13296	.15559	.30504
RELGRADE	.33384	-.19719	.05200	.33739	-.00891
GRELEDL1	.21011	-.05405	.17370	.49006	.02412
GRELSOC1	.08862	.01357	.31951	.55791	.11882
GRELGEO1	.00274	.06480	.12100	.38777	.39187
NOASSESS	-.21011	.02511	.23046	.24664	.20671
NUMSCALE	-.10242	.32315	-.10102	-.41583	-.09475
COLEAGUE	-.01607	-.03998	.02111	.05691	.06191

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	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10
TESTSFOR	.08238	-.04118	.29758	.00845	-.22918
ROTLEAR1	-.18133	.00923	.15593	.39253	.17424
ANSKNOW1	.20339	.05141	.17594	.45315	.11876
OWNTESTS	.07225	-.22306	.06721	.18061	.14052
TESTPICT	-.04767	.03532	.00356	.05505	-.08432
PARTICIP	.11507	.21096	.01676	-.16272	-.29728
PARTSHY	.20250	.26613	.04580	-.13939	.01539
PARTPICT	.25707	.34281	.45642	-.08714	.16461
NOHOMEW	.14921	.05000	-.15065	.31099	-.40379
YESHOMEW	-.28785	.00134	.13912	-.24877	.04631
HOMPICT	.28422	.22212	.21348	.34796	-.03613
FAMMATER	.00269	-.01021	-.07878	.21100	-.00620
FAMPSYCH	-.16751	-.14120	-.00220	.39871	-.10819
DIVORC1	.10710	-.13638	-.01824	.22502	.04329
DISCOR1	.08350	-.11570	-.03057	.24782	.09932
DEATH1	-.05672	-.09353	.07705	.09092	.08763
FRIENDS1	.23989	.06210	-.06688	.23134	-.03242
FAMCOOP	.02111	.06740	-.09485	.12799	.12288
FAMINTEL	-.15128	-.20986	-.16792	-.05157	.32142
FAMKNO1	-.22980	-.33848	.01135	.10924	.08424
FAMEDUCA	-.08876	.38053	.10138	.21575	.40893
FAMNEGAL	-.14716	.09492	-.00241	-.19563	.19600
FAMOFFE1	-.08487	.29992	-.14718	.01741	.22066
FAMKNOW1	-.25797	.15001	-.13367	.23747	.31731
FAMFINAN	-.24861	-.09009	-.05528	.07891	-.05341
SCHCOMPE	.01490	-.07914	-.40045	-.09696	-.04418
TEACOMPE	.17569	-.32841	-.06812	-.02573	-.31215
LANGFAML	-.04506	.10110	.06235	-.03632	-.24371
LANGORAL	-.11120	.07256	-.10885	.01007	-.13465
LANGWRIT	-.37774	.10552	.03025	.14664	-.07522
SCHLIMPR	-.16509	-.03277	.36645	-.19087	-.02855
TVIMPRLN	.01651	-.05700	-.08967	.09028	-.06096
READIMPR	-.07068	-.27321	.26574	-.36481	.02757
ADULIMPR	.00181	.02555	-.00858	-.21739	.12616
PEERIMPR	.15546	.03483	-.01070	.03810	-.04558
INTDIFFR	.44381	.14755	.19261	-.09617	.17597
INTLEAS1	-.21684	.02622	.17586	-.06285	-.13120
INTSPEE1	-.13786	.08531	-.02147	-.04371	-.08351
INTQUAL1	.01106	.16831	.07107	-.15735	-.02283
INTQUES1	-.08990	.12575	-.23215	-.17000	-.07039
INTACTI1	-.14569	.21122	-.15295	-.15015	-.19350
INTLATN1	.21532	-.01881	.04901	-.04376	-.01408
MOTEFFOR	.15961	-.44081	.13321	-.18096	-.01134
MOTINTER	.14970	-.07045	.32425	-.04228	-.28112
MOTAIM	-.05192	.16706	.27966	-.12865	-.47125
MOTFMAIM	.06768	.09161	-.12833	.08602	-.30066
MOTHG	-.02648	.24280	-.18733	.31778	-.09068

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	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10
MOTLG	.22558	.00135	-.30629	-.19132	.02507
MOTFRP	.02056	-.28027	-.02831	-.03441	-.10300
HGFINTER	.09192	.16237	.18483	-.05775	.01866
HGPRESSU	.21186	.20654	.07824	-.05872	.26496
HGFRELAT	.17962	.12545	.12582	-.06975	-.00625
HGFEMINE	.33446	.21718	.03572	.01850	-.07994
HGLANG	-.14862	-.19521	.06781	.41892	-.19901
HGLANTES	-.02131	-.05105	.38380	.27994	-.14717
HGLORAL	.02713	-.22407	-.10592	.25941	-.05433
HGINTEL	-.13347	-.06536	-.07338	.18509	.05048
HGMEFF	.32808	-.29769	.24453	-.06031	.20674
HGMINTER	-.43838	.17351	.25374	.00691	.21378
HGMAIMS	-.19672	.38088	.28751	-.03286	-.01357
LGBEHAVI	.01288	-.29348	.00955	-.14794	.14353
HGBEHAVI	-.02362	-.24490	-.00064	.07630	.06039
GRADBEH	-.00307	-.13485	.29102	.03526	-.34095
PERLIKES	.18493	.27923	.02439	.09041	.31508
PLLOOK1	.13240	.19519	-.48209	-.01801	-.13055
PLCHARA1	.31838	-.16543	.29498	.12073	-.00253
PLFAMIL1	.15771	.14502	-.33515	-.00970	-.12208
PLATTAIL	.07736	-.07545	-.34081	-.13167	.24129
PLBEHAV1	.05775	-.14196	-.13646	-.15479	.00804
HGPERLI1	-.18301	.03271	.25321	-.01440	.21292
DIFFATTA	.14252	.13803	.05717	-.09314	-.13376
DIFATPO1	-.26560	.10810	.01631	-.09217	-.08511
DIFATNE1	-.13774	.18892	.11234	-.24775	-.18597
AWARATT	-.11379	-.21392	.15261	-.06926	.07839
AWARJUS1	.15117	-.32580	.02829	.10225	.31604
RELGRADE	.27852	.35455	-.03390	.13295	.14413
GRELEDL1	.37817	-.05497	.05054	-.02525	.08579
GRELSOC1	.28895	-.16110	.00558	-.30030	.21380
GRELGE01	.36103	.00892	.01031	-.16136	.06011
NOASSESS	-.43006	.02453	.26271	.04426	.08535
NUMSCALE	.27522	-.17066	.13410	.09238	.03780
COLEAGUE	.41290	.05655	.04973	.20627	-.13686

	Factor 11	Factor 12	Factor 13	Factor 14	Factor 15
TESTSFOR	-.17931	.03179	.12253	.21661	-.07392
ROTFEAR1	-.45634	.11480	.13404	.07206	.16624
ANSKNOW1	-.58603	.10129	-.07305	.05667	.11192
OWNTESTS	-.00438	-.03260	.25481	.10595	.03563
TESTPICT	-.22005	.11757	.09737	-.16210	-.17859
PARTICIP	.45678	.10006	.13200	-.00937	-.00940
PARTSHY	-.18771	.27785	.09582	.05560	-.40600
PARTPICT	-.00914	.02176	.10656	-.16902	.06334

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	Factor 11	Factor 12	Factor 13	Factor 14	Factor 15
NOHOMEW	.15996	-.10056	.35980	.01915	-.37812
YESHOMEW	-.12491	.42793	-.10889	.15584	.08707
HOMPICT	.33007	-.04476	.20022	-.06238	.12308
FAMMATER	-.04215	-.00264	.09564	-.14492	.24326
FAMPSYCH	-.05423	.04983	.05198	-.14011	-.04319
DIVORC1	.09010	.05990	-.27884	-.01640	-.04287
DISCOR1	.14147	.00861	-.10195	-.10366	-.02951
DEATH1	.14634	-.01767	-.20377	.01037	-.03778
FRIENDS1	.23549	.05884	.00886	.16735	.07990
FAMCOOP	.18295	.69805	-.00762	.01228	.01515
FAMINTE1	.18662	.36703	.04322	-.02012	.27294
FAMKN01	.01579	.18995	.09492	-.04127	.05826
FAMEDUCA	.22659	-.00155	-.00419	-.03137	-.04836
FAMNEGA1	.17035	.16590	.03211	.19766	-.04298
FAMOFFE1	-.09916	.24988	.09180	-.01222	-.03494
FAMKNOW1	.16598	-.11308	.02854	.08844	-.20984
FAMFINAN	.07142	-.27942	-.26699	.01469	.19973
SCHCOMPE	.07205	-.02449	.29332	.23178	-.32290
TEACOMPE	.13244	-.21976	-.00544	.02211	-.23037
LANGFAML	-.26997	.00409	-.01295	.19342	-.18643
LANGORAL	-.11848	-.09926	.09100	.25757	-.11980
LANGWRIT	-.12434	.17447	.02650	.07093	-.23819
SCHLIMPR	.04785	.04897	.07827	.16744	.04282
TVIMPRLN	-.21471	.03439	.30551	-.04805	.27403
READIMPR	.19359	-.12566	.20992	.22327	-.01488
ADULIMPR	.05050	.12100	.63899	-.18851	.10085
PEERIMPR	.01812	.15247	.21367	.04377	.16446
INTDIFFR	.08722	-.05619	.01569	-.12544	-.05025
INTLEAS1	-.11397	-.06781	-.11482	-.07049	-.12242
INTSPEEL	-.05737	.03558	-.05973	-.04166	-.15012
INTQUAL1	-.03633	-.03522	-.00640	-.17324	-.03742
INTQUES1	.09205	.01345	-.11632	.04035	-.01249
INTACTI1	-.07356	.05548	-.17852	-.03805	.09916
INTLATN1	-.09929	.10877	-.16993	.33833	-.01044
MOTEFFOR	-.07714	-.06401	.09535	-.18369	.01468
MOTINTER	.11285	.17790	-.11131	-.16167	.08694
MOTAIM	-.00654	.17665	.02332	.04830	.13578
MOTFMAIM	.19451	-.11965	-.12497	-.02946	.11187
MOTHG	.07776	-.17932	-.01427	.03226	.14286
MOTLG	-.16870	-.05329	.09875	.07169	-.05527
MOTFRP	.22641	.08409	.02368	-.29389	.13399
HGFINTER	.03023	-.04153	-.09501	-.17259	-.15597
HGPRESSU	-.07024	.14589	-.05236	-.15891	-.03722
HGFRELAT	.01815	-.16715	.08612	-.08090	-.12215
HGFEMINE	-.11929	-.04594	.12312	-.19342	.05244
HGLANG	.08726	.07869	-.01947	.12503	-.01446
HGLANTES	.14078	-.03641	.10211	-.15167	.02336

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	Factor 11	Factor 12	Factor 13	Factor 14	Factor 15
HGLORAL	.03335	.15668	.21370	.02621	-.05383
HGINTEL	.22168	.11591	.29960	.00160	-.10331
HGMEFF	.03898	-.01924	-.01913	.25269	.05020
HGMINTER	.02327	-.34668	.07286	-.06470	.09087
HGMATMS	.12594	.03690	-.23016	.01947	-.04226
LCBEHAVI	-.15157	.21649	-.10544	-.34686	-.27404
HGBEHAVI	.03691	.29594	-.00800	-.24981	-.13074
GRADBEH	-.02497	.19220	.07073	-.02053	.01990
PERLIKES	.03562	-.16222	.18898	.26758	-.13205
PLLOOK1	-.19127	.13199	-.00363	-.03057	.15120
PLCHARA1	-.12937	-.10854	-.06386	-.20805	-.11729
PLFAMIL1	-.31261	-.18553	-.09110	-.21162	.17214
PLATFAI1	.10899	-.13222	.13548	.01134	.21216
PLBEHAV1	-.03546	.06397	.01558	.12548	.03234
HGPERLI1	-.07934	-.16717	.07656	.17952	-.15909
DIFFATTA	-.22674	-.11161	.34267	.03741	.33369
DIFATPO1	.06142	-.11801	.06310	.13255	.23710
DIFATNE1	.02756	.09758	.04869	.19862	.25824
AWARATT	-.24074	-.23038	.24019	.04109	-.01975
AWARJUS1	-.05581	-.23444	-.14219	.22115	-.03945
RELGRADE	.06158	-.02581	-.02996	-.08651	.00649
GRELEDL1	.25867	-.04928	-.14122	.02515	.11704
GRELSOC1	-.08931	-.01141	-.00258	.01812	.04770
GRELGEO1	.01310	.13886	-.01271	-.01632	-.17889
NOASSESS	.14582	-.01912	.13525	-.03206	-.00599
NUMSCALE	.03761	.08000	-.10780	.27308	.26196
COLEAGUE	.02776	.22306	-.11884	.53644	.01989

	Factor 16	Factor 17	Factor 18	Factor 19	Factor 20
TESTSFOR	.24128	-.00635	-.12930	-.30001	.15539
ROTLERAR1	.07729	-.23359	.06952	.07766	.24970
ANSKNOW1	-.09049	-.14038	.00945	-.00787	.11821
OWNTESTS	.04222	.16567	-.18563	.01552	.13012
TESTPICT	-.01639	.02476	.40449	-.00632	-.00524
PARTICIP	.05643	-.14186	.04049	-.04613	.31729
PARTSHY	.01911	-.15835	-.10367	.05472	-.18339
PARTPICT	.10570	.01363	.17799	-.05969	-.16867
NOHOMEW0	-.08963	-.14693	.07880	.06172	.12572
YESHOMEW	.20970	.24843	-.15265	.24715	-.07568
HOMPICT	-.07123	.03723	.30423	-.04243	-.29850
FAMMATER	.23780	-.01052	-.11740	-.30784	-.15263
FAMPSYCH	.20119	-.01547	-.13076	.00482	.09262
DIVORC1	.01816	.01384	-.12874	.11653	-.06637
DISCOR1	.09691	.00433	-.03509	.01207	-.10502
DEATH1	.12290	-.08894	-.03691	.00913	-.10904

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	Factor 16	Factor 17	Factor 18	Factor 19	Factor 20
FRIENDS1	.22383	-.18217	-.10723	.01962	-.14580
FAMCOOP	-.00047	.00188	.14060	-.04742	.20274
FAMINTE1	.07739	-.20137	.10808	-.04772	-.06946
FAMKN01	-.07116	-.06591	.00351	.01542	-.11814
FAMEDUCA	-.06849	.10049	.01175	-.10806	.06886
FAMNEGA1	-.06534	.17730	-.05721	-.00488	.18001
FAMOFFE1	-.05431	-.17376	-.24014	-.01616	.01414
FAMKNOW1	-.11674	-.16705	-.05186	-.07089	.15565
FAMFINAN	-.24326	-.02950	.06065	.22199	.02958
SCHCOMPE	.32254	-.24796	.20310	.27865	-.13390
TEACOMPE	.31923	-.07727	-.03840	-.10770	.16146
LANGFAML	-.18397	.31655	.13522	-.20561	.01341
LANGORAL	-.03286	.28697	.00292	.19034	-.04951
LANGWRIT	.10126	.12200	-.14639	.09220	-.23088
SCHLIMPR	.01844	.18811	.23200	.18793	-.04376
TVIMPRLN	-.14028	.01381	.04234	.22711	-.00307
READIMPR	-.04837	-.03670	-.00895	-.09332	-.01972
ADULIMPR	-.05851	.17978	-.04346	-.04500	.01992
PEERIMPR	.04174	.13986	.14873	.15018	.27174
INTDIFFR	-.12027	-.24340	-.13450	-.05304	-.14675
INTLEAS1	-.20008	.00961	.13133	-.00345	-.11804
INTSPEE1	-.11758	-.01987	.03958	-.04956	-.14162
INTQUAL1	-.11418	.10822	-.03342	-.10328	.04706
INTQUES1	-.16542	-.05683	.05733	-.06270	.15908
INTACT11	-.02989	-.16029	.12706	-.03559	.16144
INTLATN1	-.04001	-.13251	-.13221	-.08124	-.13799
MOTEFFOR	-.05591	-.11631	.10921	.08126	-.15716
MOTINTER	.03094	-.22937	-.10737	.41163	-.13343
MOTAIM	.26259	-.00446	-.00954	.20801	.13756
MOTFMAIM	.06592	.04208	.15673	.06024	.02288
MOTHG	.16150	.06407	.00426	.14874	.13120
MOTLG	.14240	.16503	-.34774	.18992	-.12996
MOTFRP	-.01418	.12621	-.19131	-.01627	.02382
HGFINTER	.33812	.11330	.06120	-.17427	.10588
HGPPRESSU	.34890	-.08632	.17463	.16078	-.01043
HGFRELAT	-.06415	.12320	-.09581	.19546	.00113
HGFEMINE	.06786	.06612	.03584	.07535	-.06250
HGLANG	.09748	.13681	-.19068	-.18146	-.16659
HGLANTES	-.19671	.10454	-.15062	.18976	.10140
HGLORAL	-.21279	-.02467	-.01572	-.05189	.08802
HGINTEL	-.18652	.07303	.02788	.05540	-.12539
HGMEFF	-.00955	-.02585	.19645	.18761	.18884
HGMINTER	.02450	-.14997	.08277	.00062	-.03927
HGMAIMS	.15378	.09051	.07550	.00441	.19231
LGBEHAVI	.08232	.25763	-.07230	-.08637	.06587
HGBEHAVI	-.08670	.03079	.17773	.09936	.08663
GRADBEH	.05874	-.12969	.04866	-.35444	.03827

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	Factor 16	Factor 17	Factor 18	Factor 19	Factor 20
PERLIKES	-.05501	.21074	-.01208	.08645	.02201
PLLOOK1	-.00482	.15135	.13002	-.23039	-.11223
PLCHARA1	-.07572	.02618	-.11064	-.02087	.06704
PLFAMIL1	.07996	.02465	.21068	.05871	-.00634
PLATTAI1	.28282	.13198	.13293	-.12266	-.07205
PLBEHAV1	.08339	-.09622	-.07443	.02281	.20845
HGPERLI1	.18628	-.13518	.02334	-.03782	-.05959
DIFFATTA	.06353	-.00952	-.19682	-.10896	-.06265
DIFATPO1	-.05536	-.23817	-.14425	-.00473	-.07866
DIFATNEL	-.17409	-.14996	-.22222	-.07143	.01838
AWARATT	-.00606	-.04472	.03494	-.05245	.17859
AWARJUS1	.18267	.03472	.10145	.01614	.13696
RELGRADE	.01851	-.00904	-.36452	.16267	.18605
GRELEDL1	-.04709	.26691	-.08582	-.17025	.08351
GRELSOC1	-.10416	-.25351	.06475	-.07882	.11094
GRELGEO1	-.21273	-.12072	-.07131	-.02310	.00321
NOASSESS	.21888	-.00775	.08855	-.10632	-.14129
NUMSCALE	.00482	.27932	.10453	.07988	-.07997
COLEAGUE	-.14659	-.01311	.20545	-.12972	-.17678
	Factor 21	Factor 22	Factor 23	Factor 24	Factor 25
TESTSFOR	.20161	.09139	.16211	-.16987	.14297
ROTLEAR1	.07841	-.08738	.06834	.00735	.11811
ANSKNOW1	.11892	.03942	.08194	.13305	.00659
OWNTESTS	.24413	-.18858	.04858	-.17608	-.23704
TESTPICT	.21689	.13945	-.02674	.28525	.14281
PARTICIP	.25801	-.04955	.07433	.09717	-.04007
PARTSHY	-.20899	.03073	-.12887	-.13051	-.13982
PARTPICT	-.05692	-.22339	.11364	-.19002	-.15119
NOHOMEWO	-.02102	.06956	.09719	.01109	-.22077
YESHOMEW	-.05029	.18044	-.03618	-.09872	.28089
HOMPICT	.01074	-.02230	.00628	-.09247	-.04683
FAMMATER	-.02387	.01885	-.06448	.11091	-.07114
FAMPSYCH	.05326	.01048	-.25978	-.09630	.01644
DIVORC1	.07803	-.06869	.05835	.05173	.09772
DISCOR1	-.03115	-.01002	-.02689	.12655	.13032
DEATH1	.15106	-.07863	-.03849	-.03004	.02201
FRIENDS1	-.13876	-.10571	-.00110	.10443	.09875
FAMCOOP	.12996	.03094	-.00816	-.14095	.01836
FAMINTE1	-.12385	-.05335	-.09210	-.07849	-.08907
FAMKNOL	-.16058	-.20177	.13130	-.16979	.07153
FAMEDUCA	.09180	.09035	.00222	-.00664	.03000
FAMNEGA1	.00394	.22432	-.15834	.00482	-.11422
FAMOFFE1	-.03996	.22842	-.11484	.11103	.02084
FAMKNOW1	-.02052	-.19243	.14161	-.08757	.14653

- - - - - F A C T O R A N A L Y S I S - - - - -

	Factor 21	Factor 22	Factor 23	Factor 24	Factor 25
FAMFINAN	.00210	.09694	.19828	-.08508	-.02884
SCHCOMPE	.11489	-.04720	-.00869	-.09427	.03529
TEACOMPE	.03065	.09578	.10967	-.16993	.19614
LANGFAML	-.24129	-.23478	-.03105	.03282	.09585
LANGORAL	.04468	-.23622	.09739	.02040	-.02569
LANGWRIT	.20684	-.11136	.03501	.10890	-.21007
SCHLIMPR	.24579	.19026	.16005	-.09150	.02139
TVIMPRLN	.05909	.01845	.23497	.18624	-.06990
READIMPR	-.05048	.02242	.06821	.16736	.02273
ADULIMPR	.02082	.14052	.00580	.17111	.02653
PEERIMPR	-.09082	-.23686	-.01175	-.15794	-.00941
INTDIFFR	.03360	-.06186	.08663	-.05790	.09436
INTLEAS1	.10949	-.07001	-.11760	-.03712	-.04151
INTSPEE1	.04287	-.08854	-.04268	.11132	-.03120
INTQUAL1	.04200	.06602	-.03342	-.12417	-.07712
INTQUES1	-.09136	.04015	.01915	.03199	-.14811
INTACTI1	-.15380	.08220	.05770	.02925	-.05541
INTLATN1	-.07381	.08988	.34994	-.05471	-.01558
MOTEFFOR	-.07655	.08882	-.10960	.12566	.14467
MOTINTER	-.15037	-.07943	-.00799	-.03175	-.15044
MOTAIM	-.05217	.07180	-.09990	-.02344	.00573
MOTFMAIM	-.10403	.14288	.06851	.21532	.19523
MOTHG	-.01088	-.01993	-.12553	.18553	.00869
MOTLG	.05385	-.11569	.13276	.14789	.10662
MOTFRP	.10658	-.05760	-.01898	-.14631	.09862
HGFINTER	-.30777	-.12377	.01903	-.01902	.04568
HGPPRESSU	-.00303	-.06451	.06223	.12208	-.03340
HGFRELAT	.10404	.03419	-.05145	-.06604	.06387
HGFEMINE	.06467	.02201	-.16931	-.05123	.05847
HGLANG	.00986	.20429	-.22350	-.00491	-.15902
HGLANTES	-.22009	.19630	-.02797	-.01825	.09406
HGLORAL	-.34416	-.12050	.11635	.11437	.13366
HGINTEL	.05353	-.04761	-.16695	-.06472	.20686
HGMEFF	-.18706	.04241	-.18021	.16823	-.24895
HGMINTER	.10807	-.00542	-.03237	-.02746	.07019
HGMAIMS	-.03831	-.27641	-.10297	.10263	.15278
LGBEHAVI	-.06636	-.01001	.21745	.09921	-.15594
HGBEHAVI	.01087	.17824	.21007	-.15420	.05979
GRADBEH	.06443	-.06359	.01776	.20574	-.09962
PERLIKES	-.11741	.10359	-.02792	-.05172	.00768
PLLOOK1	-.04640	.05155	.01159	-.09259	-.03435
PLCHARA1	.20727	.06085	-.07854	-.03078	.06130
PLFAMIL1	.07187	.09532	.02755	-.28653	.01047
PLATTAI1	.06455	.02000	.01467	.03544	.15056
PLBEHAV1	-.01800	-.09034	-.05425	.05865	-.12021
HGPERLI1	-.10884	.28705	-.04403	.11038	.06129
DIFFATTA	-.10020	.05395	-.00292	-.05684	-.07567

- - - - - F A C T O R A N A L Y S I S - - - - -

	Factor 21	Factor 22	Factor 23	Factor 24	Factor 25
DIFATPO1	.03355	.04056	-.04717	-.07957	-.10766
DIFACNE1	.21366	-.21427	-.01854	.01213	.14409
AWARATT	-.31247	-.10988	-.16063	-.16730	.18772
AWARJUS1	.12817	.02946	-.08336	-.03092	-.23892
RELGRADE	-.10357	.14740	.23707	.03601	.03922
GRELEDL1	-.00354	.05868	.07273	.04193	-.06407
GRELSOC1	.12639	.03400	-.06244	-.00641	.07121
GRELGE01	.24013	-.16565	-.12569	.18153	.17050
NOASSESS	-.07240	.05268	.41393	.10939	-.04814
NUMSCALE	.05374	-.18754	-.01701	.17339	.02898
COLEAGUE	-.01142	.19979	.00577	-.14564	.15635
	Factor 26	Factor 27			
TESTSFOR	-.00721	-.08424			
ROTLERAR1	.04426	.10776			
ANSKNOW1	.19517	-.02167			
OWNTESTS	-.02761	.17811			
TESTPICT	-.17010	.09015			
PARTICIP	.09388	-.12300			
PARTSHY	-.02423	.04977			
PARTPICT	.02789	.07218			
NOHOMEWO	-.06205	-.16893			
YESHOMEW	.15417	-.10264			
HOMPICT	.02986	-.04468			
FAMMATER	-.06865	.12843			
FAMPSYCH	.22934	-.03191			
DIVORC1	-.18580	-.10587			
DISCOR1	-.12630	-.14782			
DEATH1	-.13506	-.09656			
FRIENDS1	.04113	-.05741			
FAMCOOP	-.05209	.05247			
FAMINTE1	.03288	.06740			
FAMKNO1	.02859	-.06222			
FAMEDUCA	.15563	-.14609			
FAMNEGAI	.02367	-.03482			
FAMOFFEL	.07679	-.26939			
FAMKNOW1	.05011	.03510			
FAMFINAN	.07124	.18856			
SCHCOMPE	.11647	.16840			
TEACOMPE	.12258	.00228			
LANGFAML	.12429	-.05249			
LANGORAL	.03643	-.11549			
LANGWRIT	-.07744	.11017			
SCHLIMPR	-.20394	.22865			
TVIMPRLN	.07417	-.13745			

- - - - - F A C T O R A N A L Y S I S - - - - -

	Factor 26	Factor 27
READIMPR	.09565	-.09334
ADULIMPR	.05243	.02573
PEERIMPR	-.15207	.04777
INTDIFFR	-.08362	.05363
INTLEAS1	.07543	-.11927
INTSPEEL	.13861	-.08121
INTQUAL1	.06549	-.03131
INTQUES1	.07028	.13096
INTACT11	.05180	.00818
INTLATN1	-.15275	.00281
MOTEFFOR	-.01371	.02493
MOTINTER	.13567	-.06080
MOTAIM	.01856	-.03703
MOTFMAIM	.01408	.09976
MOTHG	-.27787	-.00508
MOTLG	-.03171	.02955
MOTFRP	-.04507	-.10611
HGFINTER	.05555	.04222
HGPRESSU	-.06921	.03342
HGFRELAT	.10324	-.05300
HGFEMINE	.17337	-.05133
HGLANG	.02842	.27685
HGLANTES	.05782	.22288
HGLORAL	.11073	.18364
HGINTEL	-.11025	-.05056
HGMEFF	-.05470	-.11937
HGMINTER	.07901	-.04236
HGMAIMS	-.05064	.15970
LGBEHAVI	-.05662	.03160
HGBEHAVI	-.13841	-.14516
GRADBEH	-.17659	-.12472
PERLIKES	-.08164	.03539
PLLOOK1	-.05054	-.05754
PLCHARAL	.10626	.02941
PLFAMILI	.00383	.03548
PLATTAIL	.14982	-.01953
PLBEHAVI	.21563	.16599
HGPERL11	-.16181	.11053
DIFFATTA	-.07151	.03182
DIFATPOL	-.06027	.04660
DIFATNE1	-.14765	-.06715
AWARATT	-.25480	-.14028
AWARJUS1	.06618	-.23827
RELGRADE	-.06910	-.03623
GRELEDL1	.02041	.14168
GRELSOC1	.00358	.09473
RELGEO1	.11887	.29521

- - - - - F A C T O R A N A L Y S I S - - - - -

	Factor 26	Factor 27
NOASSESS	.26507	-.04081
NUMSCALE	.12297	-.10700
COLEAGUE	.10620	-.01349

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
TESTSFOR	.80720	*	1	8.63785	10.5	10.5
ROTLAR1	.83828	*	2	6.36711	7.8	18.3
ANSKNOW1	.86211	*	3	4.41311	5.4	23.7
OWNTESTS	.83401	*	4	4.07218	5.0	28.6
TESTPICT	.77764	*	5	3.60354	4.4	33.0
PARTICIP	.79136	*	6	3.24389	4.0	37.0
PARTSHY	.77432	*	7	2.80838	3.4	40.4
PARTPICT	.83970	*	8	2.73233	3.3	43.8
NOHOMEO	.83824	*	9	2.58138	3.1	46.9
YESHOMEO	.85341	*	10	2.51522	3.1	50.0
HOMPICT	.83445	*	11	2.26467	2.8	52.7
FAMMATER	.73383	*	12	2.22051	2.7	55.4
FAMPSYCH	.84351	*	13	1.99307	2.4	57.9
DIVORC1	.85369	*	14	1.96931	2.4	60.3
DISCOR1	.90555	*	15	1.83287	2.2	62.5
DEATH1	.88901	*	16	1.67860	2.0	64.6
FRIENDS1	.75191	*	17	1.62173	2.0	66.5
FAMCOOP	.85286	*	18	1.61251	2.0	68.5
FAMINTE1	.85345	*	19	1.50848	1.8	70.3
FAMKNO1	.76233	*	20	1.40151	1.7	72.0
FAMEDUCA	.77224	*	21	1.38831	1.7	73.7
FAMNEGA1	.74513	*	22	1.27435	1.6	75.3
FAMOFFE1	.79286	*	23	1.17227	1.4	76.7
FAMKNOW1	.81774	*	24	1.13398	1.4	78.1
FAMFINAN	.84699	*	25	1.10038	1.3	79.4
SCHCOMPE	.83316	*	26	1.05308	1.3	80.7
TEACOMPE	.81792	*	27	1.05021	1.3	82.0
LANGFAML	.87809	*				
LANGORAL	.79062	*				
LANGWRIT	.86210	*				
SCHLIMPR	.84356	*				
TVIMPRLN	.77377	*				
READIMPR	.80214	*				
ADJLIMPR	.83701	*				
PEERIMPR	.80506	*				
INTDIFFR	.78501	*				

- - - - - F A C T O R A N A L Y S I S - - - - -

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
INTLEAS1	.90290	*				
INTSPEE1	.89203	*				
INTQUAL1	.87982	*				
INTQUES1	.84711	*				
INTACT11	.81387	*				
INTLATN1	.80883	*				
MOTEFFOR	.79290	*				
MOTINTER	.84032	*				
MOTAIM	.77902	*				
MOTFMAIM	.84096	*				
MOTHG	.80383	*				
MOTLG	.80186	*				
MOTFRP	.76893	*				
HGFINTER	.77508	*				
HGPRESSU	.78797	*				
HGFRELAT	.88703	*				
HGFEMINE	.87002	*				
HGLANG	.84557	*				
HGLANTES	.80434	*				
HGLORAL	.84370	*				
HGINTEL	.81205	*				
HGMEFF	.81240	*				
HGMINTER	.76002	*				
HGMAIMS	.86396	*				
LGBEHAVI	.81032	*				
HGBEHAVI	.80709	*				
GRADBEH	.81759	*				
PERLIKES	.80557	*				
PLLOOK1	.79660	*				
PLCHARA1	.67691	*				
PLFAMIL1	.87776	*				
PLATTAT1	.84197	*				
PLBEHAV1	.81023	*				
HGPERLI1	.84899	*				
DIFFATTA	.79374	*				
DIFATPO1	.79344	*				
DIFATNE1	.88722	*				
AWARATT	.87709	*				
AWARJUS1	.77009	*				
RELGRADE	.81467	*				
GRELEDL1	.73007	*				
GRELSOC1	.82454	*				
GRELGEO1	.86450	*				
NOASSESS	.85889	*				
NUMSCALE	.80002	*				
COLEAGUE	.80877	*				

Table 4.2
Correlations (Pearson's r) between factor-analysed variables of the first section of the questionnaire

- - Correlation Coefficients - -

	TESTSFOR	OWNTESTS	TESTPICT	PARTICIP	PARTSHY	PARTPICT
TESTSFOR	1.0000 (472) P= .	.1579 (472) P= .001	-.1353 (472) P= .003	.0497 (472) P= .281	-.0162 (472) P= .726	-.0854 (472) P= .064
OWNTESTS	.1579 (472) P= .001	1.0000 (472) P= .	.0365 (472) P= .429	.0873 (472) P= .058	.0313 (472) P= .497	-.0146 (472) P= .752
TESTPICT	-.1353 (472) P= .003	.0365 (472) P= .429	1.0000 (472) P= .	.1430 (472) P= .002	-.1454 (472) P= .002	.1634 (472) P= .000
PARTICIP	.0497 (472) P= .281	.0873 (472) P= .058	.1430 (472) P= .002	1.0000 (472) P= .	-.3319 (472) P= .000	.0228 (472) P= .621
PARTSHY	-.0162 (472) P= .726	.0313 (472) P= .497	-.1454 (472) P= .002	-.3319 (472) P= .000	1.0000 (472) P= .	.0825 (472) P= .073
PARTPICT	-.0854 (472) P= .064	-.0146 (472) P= .752	.1634 (472) P= .000	.0228 (472) P= .621	.0825 (472) P= .073	1.0000 (472) P= .
YESHOMEW	.0459 (472) P= .320	.0279 (472) P= .545	.0996 (472) P= .031	.0264 (472) P= .567	-.0292 (472) P= .526	-.0405 (472) P= .380
NOHOMEW	.0616 (472) P= .182	-.0332 (472) P= .472	-.0927 (472) P= .044	-.0038 (472) P= .935	.1350 (472) P= .003	-.0302 (472) P= .512
HOMPICT	-.0294 (472) P= .524	.0741 (472) P= .108	.2701 (472) P= .000	.0761 (472) P= .099	-.0683 (472) P= .139	.2329 (472) P= .000

YESHOMEW NOHOMEW HOMPICT

TESTSFOR	.0459 (472) P= .320	.0616 (472) P= .182	-.0294 (472) P= .524
OWNTESTS	.0279 (472) P= .545	-.0332 (472) P= .472	.0741 (472) P= .108
TESTPICT	.0996 (472) P= .031	-.0927 (472) P= .044	.2701 (472) P= .000
PARTICIP	.0264 (472) P= .567	-.0038 (472) P= .935	.0761 (472) P= .099
PARTSHY	-.0292 (472) P= .526	.1350 (472) P= .003	-.0683 (472) P= .139
PARTPICT	-.0405 (472) P= .380	-.0302 (472) P= .512	.2329 (472) P= .000
YESHOMEW	1.0000 (472) P= .	-.2915 (472) P= .000	-.0145 (472) P= .753
NOHOMEWO	-.2915 (472) P= .000	1.0000 (472) P= .	-.0830 (472) P= .072
HOMPICT	-.0145 (472) P= .753	-.0830 (472) P= .072	1.0000 (472) P= .

Table 4.3
Correlations (Pearson's r) between factor-analysed variables of the second section of the questionnaire

	FAMMATER	FAMPSYCH	FAMCOOP	FAMEDUCA	FAMFINAN	LANGFAML
FAMMATER	1.0000 (472) P= .	.5032 (472) P= .000	.2195 (472) P= .000	.2523 (472) P= .000	.0464 (472) P= .315	.1817 (472) P= .000
FAMPSYCH	.5032 (472) P= .000	1.0000 (472) P= .	.2381 (472) P= .000	.2434 (472) P= .000	.0206 (472) P= .655	.2326 (472) P= .000
FAMCOOP	.2195 (472) P= .000	.2381 (472) P= .000	1.0000 (472) P= .	.2421 (472) P= .000	.0935 (472) P= .042	.1193 (472) P= .009
FAMEDUCA	.2523 (472) P= .000	.2434 (472) P= .000	.2421 (472) P= .000	1.0000 (472) P= .	.2067 (472) P= .000	.2169 (472) P= .000
FAMFINAN	.0464 (472) P= .315	.0206 (472) P= .655	.0935 (472) P= .042	.2067 (472) P= .000	1.0000 (472) P= .	.0774 (472) P= .093
LANGFAML	.1817 (472) P= .000	.2326 (472) P= .000	.1193 (472) P= .009	.2169 (472) P= .000	.0774 (472) P= .093	1.0000 (472) P= .
LANGORAL	.1228 (472) P= .008	.2030 (472) P= .000	.0981 (472) P= .033	.2280 (472) P= .000	.1425 (472) P= .002	.4409 (472) P= .000
LANGWRIT	.1128 (472) P= .014	.1480 (472) P= .001	.1147 (472) P= .013	.1581 (472) P= .001	.1679 (472) P= .000	.2875 (472) P= .000
INTLATN1	.0052 (420) P= .915	.0219 (420) P= .655	.0505 (420) P= .302	.1265 (420) P= .009	.0872 (420) P= .074	.1708 (420) P= .000
MOTEFFOR	-.0077 (472) P= .867	.1245 (472) P= .007	.1583 (472) P= .001	.1920 (472) P= .000	.1426 (472) P= .002	.1999 (472) P= .000
MOTINTER	.0720 (472) P= .118	.1848 (472) P= .000	.1539 (472) P= .001	.1501 (472) P= .001	.1217 (472) P= .008	.2444 (472) P= .000

	FAMMATER	FAMPSYCH	FAMCOOP	FAMEDUCA	FAMFINAN	LANGFAML
MOTAIM	.1287 (472) P= .005	.2939 (472) P= .000	.1994 (472) P= .000	.1048 (472) P= .023	.1068 (472) P= .020	.2085 (472) P= .000
MOTFMAIM	-.0175 (472) P= .705	.0181 (472) P= .696	.1960 (472) P= .000	.1785 (472) P= .000	.2438 (472) P= .000	.0653 (472) P= .156
MOTHG	.0335 (472) P= .468	.0452 (472) P= .327	.1386 (472) P= .003	.1813 (472) P= .000	.1525 (472) P= .001	.0397 (472) P= .389
MOTLG	-.0634 (472) P= .169	-.1392 (472) P= .002	.0184 (472) P= .691	.0076 (472) P= .870	.0253 (472) P= .584	-.0144 (472) P= .755
MOTFRP	.0052 (472) P= .910	.0504 (472) P= .275	.1599 (472) P= .000	.0644 (472) P= .162	.1288 (472) P= .005	.0167 (472) P= .717

	LANGORAL	LANGWRIT	INTLATN1	MOTEFFOR	MOTINTER	MOTAIM
FAMMATER	.1228 (472) P= .008	.1128 (472) P= .014	.0052 (420) P= .915	-.0077 (472) P= .867	.0720 (472) P= .118	.1287 (472) P= .005
FAMPSYCH	.2030 (472) P= .000	.1480 (472) P= .001	.0219 (420) P= .655	.1245 (472) P= .007	.1848 (472) P= .000	.2939 (472) P= .000
FAMCOOP	.0981 (472) P= .033	.1147 (472) P= .013	.0505 (420) P= .302	.1583 (472) P= .001	.1539 (472) P= .001	.1994 (472) P= .000
FAMEDUCA	.2280 (472) P= .000	.1581 (472) P= .001	.1265 (420) P= .009	.1920 (472) P= .000	.1501 (472) P= .001	.1048 (472) P= .023
FAMFINAN	.1425 (472) P= .002	.1679 (472) P= .000	.0872 (420) P= .074	.1426 (472) P= .002	.1217 (472) P= .008	.1068 (472) P= .020
LANGFAML	.4409 (472) P= .000	.2875 (472) P= .000	.1708 (420) P= .000	.1999 (472) P= .000	.2444 (472) P= .000	.2085 (472) P= .000
LANGORAL	1.0000 (472) P= .	.3324 (472) P= .000	.1177 (420) P= .016	.2222 (472) P= .000	.2466 (472) P= .000	.1868 (472) P= .000
LANGWRIT	.3324 (472) P= .000	1.0000 (472) P= .	.1474 (420) P= .002	.1563 (472) P= .001	.2028 (472) P= .000	.2150 (472) P= .000
INTLATN1	.1177 (420) P= .016	.1474 (420) P= .002	1.0000 (420) P= .	.2592 (420) P= .000	.2990 (420) P= .000	.1459 (420) P= .003
MOTEFFOR	.2222 (472) P= .000	.1563 (472) P= .001	.2592 (420) P= .000	1.0000 (472) P= .	.4622 (472) P= .000	.2641 (472) P= .000
MOTINTER	.2466 (472) P= .000	.2028 (472) P= .000	.2990 (420) P= .000	.4622 (472) P= .000	1.0000 (472) P= .	.4517 (472) P= .000

	LANGORAL	LANGWRIT	INTLATN1	MOTEFFOR	MOTINTER	MOTAIM
MOTAIM	.1868 (472) P= .000	.2150 (472) P= .000	.1459 (420) P= .003	.2641 (472) P= .000	.4517 (472) P= .000	1.0000 (472) P= .
MOTFMAIM	.0941 (472) P= .041	.1133 (472) P= .014	.1898 (420) P= .000	.2290 (472) P= .000	.1553 (472) P= .001	.1403 (472) P= .002
MOTHG	.1188 (472) P= .010	.1342 (472) P= .003	.1869 (420) P= .000	.2008 (472) P= .000	.1098 (472) P= .017	.1198 (472) P= .009
MOTLG	-.0005 (472) P= .991	.0125 (472) P= .787	.1076 (420) P= .027	.0144 (472) P= .756	-.0208 (472) P= .653	.0224 (472) P= .627
MOTFRP	.0097 (472) P= .833	.0788 (472) P= .087	.1184 (420) P= .015	.1422 (472) P= .002	.0967 (472) P= .036	.1162 (472) P= .012

	MOTFMAIM	MOTHG	MOTLG	MOTFRP
FAMMATER	-.0175 (472)	.0335 (472)	-.0634 (472)	.0052 (472)

	P= .705	P= .468	P= .169	P= .910
FAMPSYCH	.0181 (.472) P= .696	.0452 (.472) P= .327	-.1392 (.472) P= .002	.0504 (.472) P= .275
FAMCOOP	.1960 (.472) P= .000	.1386 (.472) P= .003	.0184 (.472) P= .691	.1599 (.472) P= .000
FAMEDUCA	.1785 (.472) P= .000	.1813 (.472) P= .000	.0076 (.472) P= .870	.0644 (.472) P= .162
FAMFINAN	.2438 (.472) P= .000	.1525 (.472) P= .001	.0253 (.472) P= .584	.1288 (.472) P= .005
LANGFAML	.0653 (.472) P= .156	.0397 (.472) P= .389	-.0144 (.472) P= .755	.0167 (.472) P= .717
LANGORAL	.0941 (.472) P= .041	.1188 (.472) P= .010	-.0005 (.472) P= .991	.0097 (.472) P= .833
LANGWRIT	.1133 (.472) P= .014	.1342 (.472) P= .003	.0125 (.472) P= .787	.0788 (.472) P= .087
INTLATN1	.1898 (.420) P= .000	.1869 (.420) P= .000	.1076 (.420) P= .027	.1184 (.420) P= .015
MOTEFFOR	.2290 (.472) P= .000	.2008 (.472) P= .000	.0144 (.472) P= .756	.1422 (.472) P= .002
MOTINTER	.1553 (.472) P= .001	.1098 (.472) P= .017	-.0208 (.472) P= .653	.0967 (.472) P= .036

	MOTFMAIM	MOTHG	MOTLG	MOTFRP
MOTAIM	.1403 (472) P= .002	.1198 (472) P= .009	.0224 (472) P= .627	.1162 (472) P= .012
MOTFMAIM	1.0000 (472) P= .	.2871 (472) P= .000	.2254 (472) P= .000	.2424 (472) P= .000
MOTHG	.2871 (472) P= .000	1.0000 (472) P= .	.1671 (472) P= .000	.2351 (472) P= .000
MOTLG	.2254 (472) P= .000	.1671 (472) P= .000	1.0000 (472) P= .	.2399 (472) P= .000
MOTFRP	.2424 (472) P= .000	.2351 (472) P= .000	.2399 (472) P= .000	1.0000 (472) P= .

Table 4.4
Correlations (Pearson's r) between factor-analysed variables of the third section of the questionnaire

	HGFINTER	HGFRELAT	HGFEMINE	HGLANG	HGLANTES	HGLORAL
HGFINTER	1.0000 (472) P= .	.2550 (472) P= .000	.2517 (472) P= .000	.2075 (472) P= .000	.1359 (472) P= .003	.1034 (445) P= .029
HGFRELAT	.2550 (472) P= .000	1.0000 (472) P= .	.6947 (472) P= .000	.1209 (472) P= .009	.1708 (472) P= .000	.1702 (445) P= .000
HGFEMINE	.2517 (472) P= .000	.6947 (472) P= .000	1.0000 (472) P= .	.0827 (472) P= .073	.0591 (472) P= .200	.0429 (445) P= .367
HGLANG	.2075 (472) P= .000	.1209 (472) P= .009	.0827 (472) P= .073	1.0000 (472) P= .	.2903 (472) P= .000	.3257 (445) P= .000
HGLANTES	.1359 (472) P= .003	.1708 (472) P= .000	.0591 (472) P= .200	.2903 (472) P= .000	1.0000 (472) P= .	.5280 (445) P= .000
HGLORAL	.1034 (445) P= .029	.1702 (445) P= .000	.0429 (445) P= .367	.3257 (445) P= .000	.5280 (445) P= .000	1.0000 (445) P= .
HGINTEL	.1837 (472) P= .000	.1361 (472) P= .003	.1581 (472) P= .001	.3701 (472) P= .000	.1926 (472) P= .000	.2965 (445) P= .000
HGMEFF	.0629 (472) P= .172	.0157 (472) P= .733	-.0290 (472) P= .529	.1972 (472) P= .000	.1354 (472) P= .003	.1556 (445) P= .001
HGMINTER	.1072 (472) P= .020	.0264 (472) P= .568	-.0087 (472) P= .850	.2148 (472) P= .000	.0302 (472) P= .513	.1001 (445) P= .035
HGMAIMS	.2340 (472) P= .000	-.0381 (472) P= .408	.0076 (472) P= .869	.1927 (472) P= .000	.1158 (472) P= .012	.1009 (445) P= .033
LGBEHAVI	.1864 (472) P= .000	.0537 (472) P= .244	.0339 (472) P= .463	.1847 (472) P= .000	.1109 (472) P= .016	.1634 (445) P= .001

	HGFINTER	HGFRELAT	HGFEMINE	HGLANG	HGLANTES	HGLORAL
HGBEHAVI	.2575 (472) P= .000	.1480 (472) P= .001	.1620 (472) P= .000	.2046 (472) P= .000	.1689 (472) P= .000	.2269 (445) P= .000
HGPERLI1	.2517 (249) P= .000	.3764 (249) P= .000	.3303 (249) P= .000	.2750 (249) P= .000	.1796 (249) P= .004	.0726 (233) P= .269
DIFATPOL	.1953 (414) P= .000	.1777 (414) P= .000	.1665 (414) P= .001	.2142 (414) P= .000	.0751 (414) P= .127	.0676 (390) P= .183
DIFATNE1	.2249 (414) P= .000	.1867 (414) P= .000	.2013 (414) P= .000	.2152 (414) P= .000	.1043 (414) P= .034	.1447 (390) P= .004
AWARJUS1	.1072 (410) P= .030	.0769 (410) P= .120	.0630 (410) P= .203	.0658 (410) P= .184	.0690 (410) P= .163	.0359 (385) P= .483
GRELEDL1	.0096 (361) P= .856	-.1161 (361) P= .027	-.1240 (361) P= .018	.1528 (361) P= .004	-.0113 (361) P= .830	-.0628 (339) P= .249
GRELSOC1	.1002 (361) P= .057	-.0364 (361) P= .490	-.0190 (361) P= .719	.0467 (361) P= .377	-.0019 (361) P= .971	.0593 (339) P= .276
GRELGEOL	.0881 (361) P= .094	.0389 (361) P= .461	.0406 (361) P= .442	.0525 (361) P= .320	.0240 (361) P= .649	.0885 (339) P= .104

	HGINTEL	HGMEFF	HGMINTER	HGMAIMS	LGBEHAVI	HGBEHAVI
HGFINTER	.1837 (472) P= .000	.0629 (472) P= .172	.1072 (472) P= .020	.2340 (472) P= .000	.1864 (472) P= .000	.2575 (472) P= .000
HGFRELAT	.1361 (472) P= .003	.0157 (472) P= .733	.0264 (472) P= .568	-.0381 (472) P= .408	.0537 (472) P= .244	.1480 (472) P= .001
HGFEMINE	.1581 (472) P= .001	-.0290 (472) P= .529	-.0087 (472) P= .850	.0076 (472) P= .869	.0339 (472) P= .463	.1620 (472) P= .000
HGLANG	.3701 (472) P= .000	.1972 (472) P= .000	.2148 (472) P= .000	.1927 (472) P= .000	.1847 (472) P= .000	.2046 (472) P= .000
HGLANTES	.1926 (472) P= .000	.1354 (472) P= .003	.0302 (472) P= .513	.1158 (472) P= .012	.1109 (472) P= .016	.1689 (472) P= .000
HGLORAL	.2965 (445) P= .000	.1556 (445) P= .001	.1001 (445) P= .035	.1009 (445) P= .033	.1634 (445) P= .001	.2269 (445) P= .000
HGINTEL	1.0000 (472) P= .	.0853 (472) P= .064	.2548 (472) P= .000	.3028 (472) P= .000	.2823 (472) P= .000	.2883 (472) P= .000
HGMEFF	.0853 (472) P= .064	1.0000 (472) P= .	.2456 (472) P= .000	.2060 (472) P= .000	-.0189 (472) P= .682	.1175 (472) P= .011
HGMINTER	.2548 (472) P= .000	.2456 (472) P= .000	1.0000 (472) P= .	.5146 (472) P= .000	.0374 (472) P= .417	.1104 (472) P= .016
HGMAIMS	.3028 (472) P= .000	.2060 (472) P= .000	.5146 (472) P= .000	1.0000 (472) P= .	.1352 (472) P= .003	.1804 (472) P= .000
LGBEHAVI	.2823 (472) P= .000	-.0189 (472) P= .682	.0374 (472) P= .417	.1352 (472) P= .003	1.0000 (472) P= .	.6023 (472) P= .000

	HGINTEL	HGMEFF	HGMINTER	HGMAIMS	LGBEHAVI	HGBEHAVI
HGBEHAVI	.2883 (472) P= .000	.1175 (472) P= .011	.1104 (472) P= .016	.1804 (472) P= .000	.6023 (472) P= .000	1.0000 (472) P= .
HGPERLI1	.2246 (249) P= .000	.1574 (249) P= .013	.1424 (249) P= .025	.1195 (249) P= .060	.1561 (249) P= .014	.2871 (249) P= .000
DIFATPO1	.1878 (414) P= .000	.1201 (414) P= .014	.2536 (414) P= .000	.2755 (414) P= .000	.1070 (414) P= .029	.2246 (414) P= .000
DIFATNE1	.2448 (414) P= .000	.0185 (414) P= .707	.1523 (414) P= .002	.2553 (414) P= .000	.1791 (414) P= .000	.3010 (414) P= .000
AWARJUS1	.0987 (410) P= .046	.0428 (410) P= .387	.1003 (410) P= .042	.1621 (410) P= .001	.1204 (410) P= .015	.1687 (410) P= .001
GRELEDL1	-.0179 (361) P= .734	.1682 (361) P= .001	.0635 (361) P= .229	.0453 (361) P= .391	.0630 (361) P= .233	-.0039 (361) P= .941
GRELSOC1	.0536 (361) P= .309	.1530 (361) P= .004	.1131 (361) P= .032	.1572 (361) P= .003	.0130 (361) P= .805	.0178 (361) P= .735
GRELGEO1	.0739 (361) P= .161	.1012 (361) P= .055	.0706 (361) P= .181	.1715 (361) P= .001	.0747 (361) P= .157	.0385 (361) P= .465

	HGPERLI1	DIFATPO1	DIFATNE1	AWARJUS1	GRELEDL1	GRELSOC1
HGFINTER	.2517 (249) P= .000	.1953 (414) P= .000	.2249 (414) P= .000	.1072 (410) P= .030	.0096 (361) P= .856	.1002 (361) P= .057
HGFRELAT	.3764 (249) P= .000	.1777 (414) P= .000	.1867 (414) P= .000	.0769 (410) P= .120	-.1161 (361) P= .027	-.0364 (361) P= .490
HGFEMINE	.3303 (249) P= .000	.1665 (414) P= .001	.2013 (414) P= .000	.0630 (410) P= .203	-.1240 (361) P= .018	-.0190 (361) P= .719
HGLANG	.2750 (249) P= .000	.2142 (414) P= .000	.2152 (414) P= .000	.0658 (410) P= .184	.1528 (361) P= .004	.0467 (361) P= .377
HGLANTES	.1796 (249) P= .004	.0751 (414) P= .127	.1043 (414) P= .034	.0690 (410) P= .163	-.0113 (361) P= .830	-.0019 (361) P= .971
HGLORAL	.0726 (233) P= .269	.0676 (390) P= .183	.1447 (390) P= .004	.0359 (385) P= .483	-.0628 (339) P= .249	.0593 (339) P= .276
HGINTEL	.2246 (249) P= .000	.1878 (414) P= .000	.2448 (414) P= .000	.0987 (410) P= .046	-.0179 (361) P= .734	.0536 (361) P= .309
HGMEFF	.1574 (249) P= .013	.1201 (414) P= .014	.0185 (414) P= .707	.0428 (410) P= .387	.1682 (361) P= .001	.1530 (361) P= .004
HGMINTER	.1424 (249) P= .025	.2536 (414) P= .000	.1523 (414) P= .002	.1003 (410) P= .042	.0635 (361) P= .229	.1131 (361) P= .032
HGMAIMS	.1195 (249) P= .060	.2755 (414) P= .000	.2553 (414) P= .000	.1621 (410) P= .001	.0453 (361) P= .391	.1572 (361) P= .003
LGBEHAVI	.1561 (249) P= .014	.1070 (414) P= .029	.1791 (414) P= .000	.1204 (410) P= .015	.0630 (361) P= .233	.0130 (361) P= .805

	HGPERLI1	DIFATPO1	DIFATNE1	AWARJUS1	GRELEDL1	GRELSOC1
HGBEHAVI	.2871 (249) P= .000	.2246 (414) P= .000	.3010 (414) P= .000	.1687 (410) P= .001	-.0039 (361) P= .941	.0178 (361) P= .735
HGPERLI1	1.0000 (249) P= .	.4044 (228) P= .000	.3307 (228) P= .000	.1172 (226) P= .079	.0537 (203) P= .446	.0912 (203) P= .196
DIFATPO1	.4044 (228) P= .000	1.0000 (414) P= .	.6130 (414) P= .000	.1008 (368) P= .053	.0783 (330) P= .156	.1078 (330) P= .050
DIFATNE1	.3307 (228) P= .000	.6130 (414) P= .000	1.0000 (414) P= .	.0847 (368) P= .105	.0472 (330) P= .393	.1803 (330) P= .001
AWARJUS1	.1172 (226) P= .079	.1008 (368) P= .053	.0847 (368) P= .105	1.0000 (410) P= .	-.1141 (324) P= .040	.1096 (324) P= .049
GRELEDL1	.0537 (203) P= .446	.0783 (330) P= .156	.0472 (330) P= .393	-.1141 (324) P= .040	1.0000 (361) P= .	.3681 (361) P= .000
GRELSOC1	.0912 (203) P= .196	.1078 (330) P= .050	.1803 (330) P= .001	.1096 (324) P= .049	.3681 (361) P= .000	1.0000 (361) P= .
GRELGE01	.0353 (203) P= .617	.1550 (330) P= .005	.1876 (330) P= .001	.1135 (324) P= .041	.2984 (361) P= .000	.7214 (361) P= .000

GRELGEO1

HGFINTER	.0881
(361)	
P=	.094
HGFRELAT	.0389
(361)	
P=	.461
HGFEMINE	.0406
(361)	
P=	.442
HGLANG	.0525
(361)	
P=	.320
HGLANTES	.0240
(361)	
P=	.649
HGLORAL	.0885
(339)	
P=	.104
HGINTEL	.0739
(361)	
P=	.161
HGMEFF	.1012
(361)	
P=	.055
HGMINTER	.0706
(361)	
P=	.181
HGMAIMS	.1715
(361)	
P=	.001
LGBEHAVI	.0747
(361)	
P=	.157

	GRELGE01	
HGBEHAVI	.0385	
	(361)	
	P= .465	
HGPERLI1	.0353	
	(203)	
	P= .617	
DIFATPO1	.1550	
	(330)	
	P= .005	
DIFATNE1	.1876	
	(330)	
	P= .001	
AWARJUS1	.1135	
	(324)	
	P= .041	
GRELEDL1	.2984	
	(361)	
	P= .000	
GRELSOC1	.7214	
	(361)	
	P= .000	
GRELGE01	1.0000	
	(361)	
	P= .	

