The University of Hull

Teachers' Perceptions of Current Assessment Practices in Public Secondary Schools in the State of Qatar

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By

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Abstract

This study investigated factors related to teachers' assessment practices in public secondary schools in the State of Qatar. It sought to explore practices in relation to selected variables, through teachers' survey responses and focus group interviews. The main objective was to describe the characteristics of teachers' assessment practices in the state and to identify major variables that could have effects on these practices. The research sample consisted of 189 male and 301 female teachers from secondary public schools in Qatar. The different schools in this study were chosen randomly using stratified random sampling.

The study addressed various factors that may influence teachers' practices, including their own perceptions about their skill with the different assessment techniques, in addition to their application of various methods to evaluate students' academic progress. This study considered factors related to assessment practices, including sources that provide teachers with assessments, factors that affect teachers' practices, the educational objectives behind the application of assessments, sources that form teachers' expectations about students' achievement, and abilities that are assessed. Other important aspects examined included strategies implemented to ensure students' involvement in the assessment process, effects of assessments on students' learning, and teachers' perceptions of the effectiveness of previous training programmes and workshops on assessment techniques.

The findings revealed that most teachers believed that they had adequate proficiency with the various assessment strategies, including both the traditional test item forms and most of the alternative assessment procedures. A large number of teachers claimed they employed a variety of methods to assess their students' academic progress.

Teachers' comments showed that they were able and willing to implement different strategies to evaluate their students' learning performance. However, there were some external factors that negatively influenced their application of different assessment forms and restricted their capability to introduce new assessment procedures. Foremost among these were having to comply with assessment plan specifics and score distribution standards. In addition to those, curriculum workload, teaching time and number of students in the classroom also affected teachers' ability to apply the various assessment methods, but to varying degrees.

The responses showed that a great number of teachers had not received any training in assessment methods, particularly new teachers with fewer years of experience. A great number of teachers indicated that they would welcome any further plans to introduce assessment workshops and training sessions in various assessment techniques.

Table of Contents **Page**

Chapter 3   Assessment Role in the Learning Process

Chapter 4   Assessment Effects on the Learning Process

Chapter 5   Formative Assessment

Chapter 6   Methodology and Survey Design

Chapter 7   Data Analysis

Chapter 8   Discussion

Chapter 9   Conclusions and Recommendations

Summary of Appendices

Summary of Tables

Summary of Figures

Figure	Title	Page
1.	The Map of the State of Qatar	340

Dedication

To my mother, Safia Al-Quaiti, who always reinforces and motivates me through her

infinite love and positive support

To my wife, Layla Al-Saadi, for her love, support, and patience

To my children; Noor, Abdulla, Dana, Mohammed, Almayasa, and Aljori, who I hope

for them a bright future

I dedicate this work

Acknowledgements

Chapter 1

Purpose of the Study

1.1. <u>Introduction</u>

Since the beginning of the last century, achievement and ability have been assessed by using pencil-and-paper tests. Some of these tests consist of objective test-items that are designed to measure the different cognitive abilities, such as multiple-choice items, essays, and completion of sentences. These types of tests are believed to measure lower-level skills, in addition to assessing students' ability to use high-order thinking abilities, such as knowledge, analysis, application, and evaluation. Most of these tests are used in school settings to determine students' achievement and to measure their aptitudes and knowledge that is required to succeed in school. Pencil-and-paper testing has been applied in schools, the workplace, and for professional licensure and qualifications. Nowadays, however, there are other assessment methods that are being designed to evaluate students' attainment of educational objectives, besides their ability to incorporate advanced thinking strategies that could help in solving real life situations.

These alternative assessments were developed to help in providing other important indicators about students' academic performance alongside the traditional techniques. Some of these methods, such as formative assessment, are believed to have significant effects on students' learning, since they may require the application of higher-level thinking strategies. Some researchers advocate formative assessment that is intended to give direct feedback and techniques which try to measure learners' skills and abilities are being used recently or are under development (Black & Wiliam, 1998; Black, 2001). Therefore,

evaluating students' achievement and outcome in daily classroom practice has been a major focus for a number of researchers in education and psychology. Since the most important element in evaluating students' outcomes is to provide direct and immediate feedback to learners, many researchers have focused on studying the possible effects of implementing different assessment procedures in classroom settings.

There are various uses of assessment in the learning process, depending on the purpose of the assessment and the way the assessment results are used in the teaching process. Assessments can be used to make various types of decisions regarding students' academic attainment. Some of these decisions could be instructional in purpose, since they are used throughout the learning process, before students start their learning, during the teaching process, and at the end of it (Nitko, 1996). The main aim of this type of assessment is to provide teachers and other authorities with purposeful feedback regarding students' academic progress. Such educative feedback may help in developing new strategies regarding the instructional plans and teaching methods to suit students' learning needs. In addition, assessments could serve other important purposes, including grading students' final achievement at the end of the school year, diagnosing their attainment of fundamental skills besides their current strengths and weaknesses, and deciding on the selection of individual students in undergraduate and postgraduate studies (Kubiszyn & Borich, 1993).

However, there are some factors that could influence teaching and learning, which, as a result, may affect students' academic achievement. These include the specific nature of the learning environment (Brophy, 1986; Richards, 1989; Anderman & Maehr, 1994; Pointon, 2000; Fisher, 2005), teachers' instructional practices (Brophy, 1986), individual differences of learners (Saracho, 1983; Satterly, 1981), and students' motivation to learn

(Black & Broadfoot, 1982; Child, 1986; Weiner, 1994; Anderman & Maehr, 1994; Kaasbøll, 1998; Marchant & Paulson, 2005). All these factors could play a major role in shaping students' academic performance in the short and long run. Therefore, it is important to design assessment plans that consider the influence of such factors to fulfil the requirement for more appropriate assessment strategies that encourage students to advance in their learning.

The educational assessments that are usually used in schools could be classified into formative or summative assessments. Assessment is called formative whenever it is used to make judgments regarding the following moves in learning and how to prepare them. However, the assessment is called summative when its main function is to summarise students' participation in classroom activities with the purpose of providing them with grades and marks that certify their current level of academic attainment. Most schools, nowadays, tend to use both forms. During teachers' assessment practices, they try to implement many evaluation strategies to assess their students' learning progress, to determine whether they have achieved the intended instructional objectives and comprehended the curriculum material and contents.

However, there are many elements that could have significant effects on teachers' ability to apply the different assessment techniques. Some professionals (Satterly, 1981; Black & Broadfoot, 1982; Marzano, et al., 1988; Klein, 1998; Garet, Porter, Desimone, Birman, & Yoon, 2001) have focused their attention on teachers' proficiency with the different assessment techniques. This includes their capability to construct the different test item formats, besides their capacity to employ other assessment procedures that go beyond the traditional methods, and to interpret assessment results in an effective way to modify instructional plans and provide students with descriptive feedback. Other researchers (Filer,

1993; Mullan, 1995; Brady, 1997; Herbert, 1997; Black, 1998; Williams, 2001; Lane, 2004) focused their studies on the comprehensive use of high-stakes testing in public schools and its negative influences on students, teachers, schools, and the learning process in general. High-stakes tests are those tests that are used for "making decisions that affect the status or future of students, teachers or schools" (EPPI-Centre, 2002, p.1). The extensive research on the possible effects of high-stakes tests indicates that many aspects of the learning process can be influenced by the intensive implementing of such tests. These include assessing lower-level thinking skills (Bassett, Watts, & Nurcombe, 1978; Sternberg, 1989; Brady, 1997; Cullingford, 1997; Kaasbøll, 1998; Black & Wiliam, 1998; Black, 2001), negatively influencing teaching practices (Barnes, 1989; Sutton, 1991; Filer, 1993; Mullan, 1995; Cullingford, 1997; Kaasbøll, 1998; McNess, Broadfoot, & Osborn, 2003; Marchant & Paulson, 2005), judging teachers' and schools' effectiveness (Black & Broadfoot, 1982; Filer, 1993; Brady, 1997; James, 2000; Williams, 2001; Lane, 2004; Greenfield, 2005), driving and controlling the assessment practices (Satterly, 1981; Brady, 1997; McNess, et al., 2003), providing less formative feedback (Rowntree, 1977; Harris & Bell, 1994; Brady, 1997; EPPI-Centre, 2002), and negatively affecting students' motivation to learn (Black & Broadfoot, 1982; Child, 1986; Cullingford, 1997; EPPI-Centre, 2002; McNess et al., 2003) . Besides these influential factors, there are other important aspects that some studies identified as other sources of effects on teachers' assessment practices. These include the number of students in the class (Blatchford, Baines, Kutnick, & Martin, 2001; Graue, Hatch, Rao, & Oen, 2007), in addition to curriculum, instruction, and schools' resources (Wainer & Zwerling, 2006).

Therefore, in the light of evidence as to the disadvantages of standardised tests, some of the research on educational assessment has focused on investigating a new assessment approach that could help in eliminating the negative consequences of such tests by providing more demanding assessment strategies for both students and teachers. The attention was on an assessment system that really helps learners to overcome the difficulties that they may encounter during their learning. This means plans should focus on a new system of assessment that should take a formative approach. Educators and learners can benefit from such a system to help them to face and resist any difficulties, and to guide the learning process onto the right path (Harris & Bell 1994)

From the early 1990s, many research studies (Gipps, 1994; Black & Wiliam, 1998; Harlen, 2000; Gipps, McCallum, & Hargreaves, 2000; Neesom, 2000; Hall & Burke, 2003) began to consider alternative assessment methods that could be used in schools to provide more informative feedback to students and teachers. One of the most important analyses of effective assessment techniques was conducted by Black and Wiliam (1998), who reviewed comprehensively many educational and psychological articles from different resources about different ways of providing more effective feedback to students. The results from this important review led to major conclusions about the effectiveness of formative assessment implementation, as one effective and essential method of raising students' attainment and producing more educative information for students' benefit.

The most important target in students' learning process is to help them acquire high-order thinking skills that will help them in future involvement in their societies and aid them in making significant decisions concerning their future steps in life, through deep understanding of the current facts and future possibilities. Therefore, it is essential to ensure that curriculum design, instructional plans, and educational assessments should be built to

include high-order thinking skills and promote students' learning. By including these significant tools in the teaching and learning process, they will be transmitted to learners to support them in overcoming possible challenges in their present studies and make them feel confident in making decisions regarding their future progress. Black (2001) indicates that

> *what counts as knowledge is formulated and defined in social interactions, so that participation, with its accompanying shared meanings and symbols, is essential. The knowledge is situated in the discourse and practice of a community. The process of learning is thus seen as a process of enculturation and one's capacity to learn is seen, in this perspective, as a capacity to interact and participate effectively in such communities (p.79).*

An additional essential aspect concerning the use of assessments in the teaching and learning process is the need to show evidence that students are progressing with their learning, to accomplish the major aim of education. To achieve this aim, assigning marks and grades to students' achievement through end of course and term examinations and tests is not the only method to determine their academic abilities. Actually, such examinations give little evidence about students' total academic attainment, since they occur at the end of the teaching process. In fact, it is essential for both teachers and students to have practical indications about achievement advancement through each lesson during the learning progression (Harris & Bell 1994). By this is meant students' capability to attain some specific skills and abilities, in addition to their comprehension of specific work being done. For better understanding of students' progress, assessment can take place from the first day of schooling throughout the school year and not just at the end of it, and tests are not the only technique to be employed as assessments. Students' self and peer assessment, in addition to teachers' observation and practical activities in the classroom environment, could be some of the procedures that may be applied in the assessment process. Subsequently, to guarantee that assessment is part of the learning cycle and it is assessment for learning (formative) and not just assessment of learning (summative), and to get the

most advantages from the outcomes of this whole process, there must be feedback to the school educational programme as a new objective to be considered in teaching and learning processes (Black, 2001).

There are many assessment projects (Gipps et al., 2000; Black, Harrison, Lee, Marshall, & Wiliam, 2003; Clarke, 2005a, b) that have recently introduced formative assessment elements in schools. The projects' results showed that the implementation of such a system in schools may have positive influences on the learning process. These include teachers' benefit from such assessment in modifying instructional plans to provide their students with regular feedback regarding their strengths and weaknesses, in addition to possible ways of remedying any misconceptions (Gipps et al., 2000). Another important study (Black et al., 2003) indicated that sharing assessment criteria between teachers and their students, throughout the formative assessment implementation, had influential effects on the relationship between them, which was reflected in students' increased academic achievement and demonstrated the success of formative assessment implementation in schools that employed such a system.

1.2. <u>Previous Research on Assessment Practices in Qatar</u>

Within the whole body of research that has been conducted about education in Qatar, no specific study, as far as the researcher has been able to ascertain, has investigated secondary school teachers' current assessment practices in public education in the state as a main theme. Most studies focused on various educational issues other than the assessment practices. Some of these studies were very general in focus, investigating the status of education in Qatar, and examining the history of the development of education in the country. Others researched specific areas in education, such as curriculum, teaching methods, and learning strategies.

A few researchers (Ghoneim, 1992; Boshorbak, 1993) in Qatar discussed some general aspects of the assessment system in schools. However, no attempt has been made to do a comprehensive survey about teachers' assessment practices in secondary schools and factors that could have significant influence on teachers' assessment practices in classroom settings. The following sections will explain briefly the main results of those studies, in addition to their important recommendations regarding assessment practices in Qatar.

1.2.1. Ghoneim (1992)

This research study indicated briefly the importance of studying classroom assessment issues as one of the essential elements in the educational system. Ghoneim conducted a review of the major elements in the education system in the State of Qatar, in general. Among the issues studied were the clarity of the educational objectives; curriculum and text books; effectiveness of teachers and teaching methods; assessment and examination; and effectiveness of educational inspection. The main aim of the research was to identify the positive and negative aspects in the teaching and learning process through investigating these factors. All the research questions were concerned with the role of these factors in contributing to an effective educational system.

According to the participants' responses about the various aspects of the educational system, the researcher arrived at some major recommendations about those areas. For the testing and evaluation system in the Ministry of Education, the researcher suggested that an item bank should be established, on a scientific basis, to provide more valid and reliable test items that assess different objectives and can be used in continuous assessment. Furthermore, he recommended that the use of essay questions in tests and exams should be minimised by employing more objective test items that can cover broad areas in the

curriculum. He also advocated training teachers in the appropriate methods to construct different valid tests that measure the different domains of ability: cognitive, affective, and psychomotor.

Ghoneim made recommendations for re-considering the education objectives with a view to formulating them in a scientific manner, taking into account the cognitive, affective, and psychomotor domains. The recommendations highlighted the importance of providing teachers with guidance regarding the intended educational objectives and how to relate the instruction to them, in addition to possible ways of assessing them. Regarding curriculum effectiveness, Ghoneim suggested that the focus of the curriculum contents should be on the quality of the information provided in it, not the quantity of the topics included in the text book. In addition, he argued that the curriculum content should be treated as a supportive tool in the learning process, since the main focus should be given to learners, as the central concern of the education process, by developing their characteristics through the curriculum plans.

Ghoneim signified the importance of providing schools with appropriate resources that can help in making the teaching process more effective. This includes providing schools with various instruments and equipment that are necessary for teaching science, such as laboratories to enable students perform practical experiments and employ their understanding of the curriculum material. Moreover, it is essential, according to the research findings, that teachers be observed and assessed on their employment of the different methods and instruments in the teaching process, and to what extent these practices have achieved the intended objectives behind their use.

When it comes to teachers' effectiveness, Ghoneim argued that teachers should have more freedom during the instructional process, rather than being restricted to an imposed instructional plan. They should be advised not to use the text books as the only source of information, but they should be guided to employ additional beneficial resources during their teaching. He recommended that teachers should be given training sessions to develop their ability and effectiveness, academically and practically, and they should be encouraged to develop themselves and implement new teaching strategies that may help in encouraging learners to participate effectively and positively.

1.2.2. Boshorbak (1993)

This is another study that introduced some aspects of classroom assessment practices in Qatar's schools. First of all, the researcher conducted some interviews with a number of school headmasters and teachers from all stages to ask them about possible reasons behind the failure and dropout of a number of students in the different educational grades in public schools. The responses from those interviews suggested that there were some important indicators that should be considered for revision and improvement of the assessment and examination system in schools. The respondents considered that the examination system had negative influences on the learning process, because there was too much examination throughout the school year. This continuous process of examination consumed an enormous amount of time, which, as a result, affected the time that could be spent on teaching the curriculum material. In addition to this, the process of revising the exam papers and correcting them was a significant burden on teachers and schools.

After that, the researcher went on to study these problems through administering a questionnaire to a number of administrators and professionals who were involved in education planning. According to the research findings, Boshorbak made some generalisations about the testing and evaluation system in addition to some important suggestions to improve the practices in all those areas, which, he claimed, could improve the whole learning process. Within the overall conclusion of this study, the researcher included some general conclusions about the testing and evaluation procedures. He recognised that most responses indicated that there was a strong emphasis on applying essay test item forms in examinations, and the main focus was on assessing students' ability to memorise facts and knowledge, with no attempt to measure more advanced cognitive abilities. Moreover, he found that the testing methods did not attempt to motivate learners during the learning process, to develop their skills and abilities. As a result, the main issue that the researcher focused on in his suggestions for the improvement of the testing and evaluation system is the importance of introducing other testing techniques incorporating more objective test items that may help in assessing the various aspects of students' academic performance in different areas.

1.3.   The Purpose of the Study

One of the educational goals of the Ministry of Education in the State of Qatar is "to give the students the access required to advanced knowledge in proportion with the growth and ability stages, developing their potential scientific abilities to understand and apply technological achievements" (Ministry of Education, 1994, p. 4). To fulfil these objectives, it is important to consider the new development in educational beliefs and plans to promote more effective teaching and learning processes that put learners at the heart of any educational programme.

This includes taking into account the recent developments in curriculum design, instruction plans, teaching methods, and assessment techniques and strategies. Classroom assessment methods are one of these elements that should be considered for more improvement. Many developments have been undertaken through intensive research on educational assessment from different perspectives. These have resulted in recommendations about effective strategies that may be implemented during the assessment of students' academic performance. Furthermore, previous studies that discussed- although to a limited extent- the assessment and evaluation practices in Qatar's schools have drawn some general conclusions about these practices that need to be re-assessed with more focus and in depth analysis to identify the major differences between the past practices and the recent improvements in classroom assessment exercises.

The purpose of this study, therefore, is to describe teachers' current assessment practices in secondary schools in the state of Qatar in the light of recent literature about assessment methods and improvements in assessment techniques. The major interest is to collect some important information regarding classroom assessment practices in the state, including teachers' use of the traditional and alternative assessment procedures discussed in the assessment literature, in order to identify the major characteristics of their practices. The task includes investigating teachers' perceptions of their skills with the different assessment techniques, in addition to their current application of the various kinds of assessment strategies in classroom settings. The research also aims to investigate what factors affect teachers' assessment practices. It will explore the role of classroom assessments in terms of creating more helpful feedback to students about their learning outcomes and how they can do better in similar future settings. The study will also investigate students' involvement in the assessment process, in terms of being informed of

the intended objectives and the employment of the different strategies that could help in increasing student involvement, such as self and peer assessments. Finally, this research will ascertain perceptions of the effectiveness of teachers' training regarding the ability to apply the different kinds of alternative assessment and the capability to analyse these assessments, technically and practically.

1.4. The Research Objectives

From reviewing the literature, the researcher formulated some important objectives, which were of interest since no previous research has been conducted to describe teachers' assessment practices in secondary schools in the State of Qatar. The main research objectives are:

1- Understanding teachers' perceptions of their skills with the different assessment techniques;

2- Understanding teachers' perceived frequency of the application of different assessment techniques in their classroom practices;

3- Identifying the major factors perceived by teachers as an influence on their assessment practices;

4- Understanding purposes of assessment in schools;

5- Assessing students' involvement in the current assessment practices;

6- Identifying the major effects of assessments on students' learning;

7- Understanding teachers' training experiences in assessment methods, besides their future training needs in assessments.

The information from the research findings will enable the researcher to identify the main characteristics of teachers' assessment practices and to suggest possible future strategies to

improve such practices by effective implementation of further tactics that could aid in improving students' academic attainment.

1.5.   <u>The Significance of the Study</u>

The main significance of this study is that no such studies have been conducted before that investigated teachers' practices of assessment in secondary school public education in Qatar. Previous studies have discussed some general and basic principles of assessment practices, without considering teachers' skill with the different assessment strategies and their current practice of such methods. Besides, no attempts have been made to study the major influence of different factors inside the Qatari education system on teachers' assessment practices and the main use of assessment results in teaching and learning. In addition, previous research about the education system in Qatar did not investigate students' involvement in the assessment process. Furthermore, no study has explored teachers' training needs with regard to the huge development in educational assessment area and the improvements suggested in the literature about methods that could be implemented to make assessment application in schools more informative and accountable for students, teachers, schools, and policy makers.

This study will help in to fill these gaps in the literature. It will contribute to provide a valid picture about issues regarding assessments in Qatari secondary schools, the factors that influence these practices and possible methods for improving and developing new strategies and plans in order to accomplish the main purpose of assessment application in classroom settings. Besides, this study can be compared with previous research (Ghoneim, 1992; Boshorbak, 1993) results to help in evaluating how classroom assessment practices have developed since the earlier research.

1.6.   Outline of the Thesis

The following chapter sets this study in context by giving some information about the State of Qatar, including the state's history, in addition to some facts concerning its present development in different areas. It then explains the major characteristics of the educational system in the country by presenting some facts and describing recent developments and future plans in the different sectors within the system. After that, a description about assessment rules and regulations, teachers training on assessment methods, previous studies about assessment system in the state will be presented.

Next, the third chapter will review the literature on classroom assessment practices in schools. The discussion begins by describing the main purpose of schooling and factors that could influence students' academic achievement within the school setting. The main purposes of assessment and evaluation as key elements in any educational system will be explained, noting their importance for providing stakeholders with useful information regarding past performance and teaching effectiveness. Stakeholders can benefit from this information to guide them in improving their present practices and designing future plans. The last section of the chapter will identify the major factors that could influence teachers' assessment practices in schools besides explaining in brief the assessment system in England and its past and present development.

Chapter four is concerned with the possible effects of the intensive implementation of high-stakes tests on the learning process, including the influences of standardised tests on students, teachers, and schools. Some psychometric test theories are briefly explained, along with their application in analysing students' scores on tests and educationists' views on the value of such theories are reviewed. The chapter concludes with professionals'

recommendations and comments about possible alternative assessment methods that may be more advantageous to the learning process.

The foregoing discussion leads to a focus, in the fifth chapter, on formative assessment, as a way of providing more useful information regarding students' learning progress. It will identify the major characteristics and techniques of such assessment and review previous implementations of this type of assessment. Besides, it will highlight some effective ways that could be used to provide the learners with instructive information that may help them to overcome any difficulties they may encounter during their learning.

The sixth chapter will explain the design of the empirical work, in which a survey was conducted and focus group interviews held to collect information regarding teachers' assessment practices. A description will be given of the characteristics of the research sample, the quantitative and qualitative methods applied in the research, the development and administration of the questionnaire, and the techniques used in analysing data.

The seventh chapter is a report on the major findings from teachers' responses to the questionnaire, in addition to their comments during focus group interviews held in schools.

The last two chapters of the thesis will contain a discussion of the research findings, for each of the research questions in turn. The significance and implications of the findings will be discussed in the light of previous research. This is followed by conclusions and recommendations to the main stakeholders about possible ways to implement new alternative strategies and plans that could improve assessment practices in schools and render them more effective and beneficial in the future.

Chapter 2

Educational Development and Assessment System in Qatar

2.1. <u>Introduction</u>

The main aim of writing this chapter is to describe the most important elements of education structure in the state of Qatar. It will introduce some important facts about the history of the state including its location, history, and economy. After that, the chapter will focus on the main structure of public, private, and special education in Qatar from the primary stage to secondary and higher education. Finally, the chapter will provide some major facts about current progress in the education system. This includes the recent improvement in education through the establishment of The Higher Council of Education, in addition to the implementation of independent schools as a major project within the system. Another essential development that will be introduced is the establishment of Qatar Foundation for Education and its important project, The Education City, which has increased the provision of higher education options in the country by involving and attracting more educational and academic institutes and first class universities. All these major developments will be explained to set the current study in the context of the education system in Qatar as a whole.

Finally, the chapter will explain the main features of the assessment system in secondary schools in Qatar. First of all, related rules and regulations will be explained, beginning with the two main lists of evaluation published by the Ministry of Education in 1996. The first list is about the evaluation system in public schools from grade 1 to grade 11. The second list, however, introduces the evaluation system for grade 12, or the so-

called Secondary School General Certificate. It will explain the similarities and differences in the grading system in the two lists.

The section goes on to explain the regulations governing grading practices. This is followed by discussion of the rules governing the appointment of test developers and the responsibilities that are assigned to those professionals. An outline is also given of the guidelines set for construction of achievement tests to ensure that these tests represent the curriculum and syllabi and reflect the intended educational objectives.

Then, information will be given regarding assessment resources provided to teachers and schools, including the assessment and evaluation unit at the curriculum and textbooks departments and its duties toward the Ministry of Education. Secondary school teachers' qualifications and their previous training on assessment will be discussed with reference to the Ministry of Education's annual statistical reports.

Finally, the chapter will introduce some previous studies about assessment application in schools and related problems, in addition to teachers' training in general and the barriers that may impede realization of the possible benefits of such programmes.

2.2. Brief Introduction about the State of Qatar

The state of Qatar is an independent Islamic Arab state that is positioned in the Middle East and part of the Asian continent. It is situated on the southern side and halfway along the West Coast of the Arabian Gulf, east of the Arabian Peninsula. It is surrounded by sea to the north, west and east, and the Kingdom of Saudi Arabia borders the country to the south. The total area of Qatar is around 11,532 square kilometres, on a low-lying limestone peninsula projecting northward about 160 kilometres into the gulf, and the coastline is 550 kilometres long (see Figure 1, p.340).

The capital city, Doha, is the cultural and commercial centre and where all government ministries, departments, and financial institutions are located. It hosts the international airport, seaport, hotels, and sport facilities and half of the population of the country live in the city. The Emir H.H. Sheikh Hamad Bin Khalifa Al- Thani is the Head of the State. H.H. Sheikh Tamim Bin Hamad Al Thani is the Heir Apparent and H.H. Sheikh Hamad Bin Jassim Al Thani is the Prime Minister. The official religion of the country is Islam and Shari'a (Islamic Law) is the main source of legislation. Democracy is the basis for the system of government and Arabic is the official language of the country, although English is also widely spoken and commonly used as a business and trading language.

Oil and gas are considered to be the two main sources for state's wealth. The country's economy is dominated by these resources, which account for 70% of export income. Their revenues have been used to diversify the economy and played a significant role in industrialization in recent decades, including the development of chemicals, steel, cement and fertilizer industries and banking. From 1939 until relatively recently, oil was the only source of the country's income, but after the new discoveries of gas the economy has developed and attracted investments. With the third largest reserves of liquefied natural gas (LNG) in the world (about 25 trillion cubic metres), most economics experts believe that Qatar will play a major role in the international economy by supplying it with pure gas, which is less polluting than oil. The industry of the country is moving forward for more gains and according to the United Nations report (2002) about Qatar:

> *the government has actively promoted the development of both heavy and light industry concentrating on in-country resources. Cheap energy has led to the development of a steel and iron industry, and healthy gas reserves have led to the establishment of chemical, fertilizer, and petrochemical industries* (p.4).

The State of Qatar is now one among the six member states of the Gulf Cooperation Council, which include Bahrain, Kuwait, Oman, Saudi Arabia, and the United Arab Emirates. In addition, it is an active member in the United Nations, contributing in discussion about international concerns and possible ways of making this world more peaceful and cooperative. The state has made many developments in more than one sector. The education system is among the sectors that has received the most attention and support from the government. In addition to this, other changes have been made in social life, economy, and financial support and trading. The state has many important targets and advancement objectives for every part of the country and in every aspect. All these significant changes have made the economy strong and reliable, as a result of which the state is attractive to investors. Nowadays, there is significant ongoing investment being made into the local infrastructure to support high standards of living and the successful development of tourism.

2.3. <u>The Structure of the Formal Education System in Qatar</u>

The education policy in Qatar was designed to provide appropriate teaching and learning for all students inside the country. These include Qatari citizens and non-Qatari students from different communities. In addition, the state did not forget students with special needs who need specific plans, instruction, and curricula that suit their requirements. Therefore, the Ministry of Education designed plans intended to meet the varied needs of all students, and provide them with suitable resources. The education structure is divided into different segments: public and private schools, special and adult education, as well as schools for the different Arab and non-Arab communities, such as

Lebanese, Indian, and American. Each segment has its own students, teachers, administrative staff, and schools according to its needs.

Table 2.1 represents a general summary of education in the State of Qatar for the years 2005/2006 (Ministry of Education, 2007, p.51).

Table 2.1
Summary of Education at the State of Qatar (2005/2006)

Education Type	No. of Schools	No. of Classes	No. of Students	No. of Staff	No. Labourers
Public Sch.	227	3027	78293	11765	1499
Private Sch.	291	2791	65705	5901	1480
Adult Edu.	15	73	1845	227	50
Special Edu.	5	69	472	291	56

The existing official educational structure covers 12 years of education; six years of primary education, three years of preparatory education, and three years of secondary education. The primary stage starts from the 1st grade to the 6th grade, and students are registered at the age of 6 years. After students successfully finish all six grades they will be transferred directly to the preparatory stage.

The preparatory stage is divided into two sections; the general preparatory stage and the religious institute preparatory stage. Both sections provide three years of study, from grade 7 to grade 9, and both accept students who have successfully finished their primary education. The only difference between these two stages is that the religious institute preparatory stage places greater emphasis on religious and Islamic studies, in addition to teaching of basic subjects, such as English, mathematics, and science. Successful achievement in all three grades will lead to acceptance in the secondary stage (Ministry of Education, 2007).

The secondary stage includes three years of study, from 10th grade to 12th grade. Education within this stage falls into four categories: general secondary education, technical industrial education, commercial secondary education, and religious institute. In general secondary education, students start in the first year studying general subjects, both arts and sciences. After completing this year, they specialize for the remaining two years in either arts or sciences. At the end of the third year, students in each segment will take the final secondary examinations, and students who pass these exams will be awarded the secondary school certificate. Technical industrial education, however, is intended to give a special focus on technical and vocational education, introduced in academic year 1999/2000. After students successfully complete all three years of study, they will be awarded the secondary technical and industrial school certificate. Commercial secondary education comprises s three years' study followed by final examinations and the award of the secondary commercial school diploma. Finally, the religious institute emphasis Islamic studies, in addition to general subjects, and the duration of study is three years. After successful completion of three years of study and final examinations, students are awarded the secondary religious institute certificate (Ministry of Education, 2007).

In addition to those various education structures, there are other important institutes that specialize in different subjects. Among these are the Department of Training and Vocational Development, The Languages Institute, and Literacy and Adult Education. The Department of Training and Vocational Development was established in 1962 to supply the state with national skilled and semi-skilled employees, and it offers technical and practical training for Qataris and non-Qataris. Moreover, every year it carries out training sessions and workshops for Qatari personnel, both males and females, in areas related to office secretarial work. The Languages Institute offers courses in Arabic, English, and French

languages for the employees of the government and semi-official organizations. Finally, Literacy and Adult Education is another important sector, since it provides education for illiterate individuals. It is divided into two phases of basic education: phase1 is equivalent to completing the 2nd primary year and phase 2 is equivalent to completing the 4th primary year. In addition to these important educational establishments, there are the Qatari Centre for the Gifted and Creative and Qatar Female Scout Guides Association (Ministry of Education, 2007).

Since 1999, the Ministry of Education has undertaken some major developments in the areas of curriculum and textbooks improvement, with the aim of enhancing students' higher-level thinking skills and creativity. Further, the ministry has implemented a programme of evaluation of school performance, covering around 91 schools in the year 2000/ 2001. In 1999/2000, the Technical Industrial School was established, which offers students extra choices that suit their individual differences. Besides, new style school buildings were introduced in 2000, which have many facilities and are air conditioned for the comfort of students, teachers, and schools' administration. They are provided with facilities, such as modern computer labs, new science laboratories with enough amenities for teachers and students to perform practical exercises, a theatre in which to present lectures and plays, and various other rooms and spaces for sports and extra-curricular activities. The main aim of the new development in school construction is to provide a healthy and safe school environment in which students can learn with ease and comfort, and focus their attention on improving their academic performance (Ministry of Education, 2007).

2.4.   <u>Higher Education</u>

University education in Qatar was launched in the seventies when two separate campuses of the College of Education, one for male and one for female students, were established in 1973. Since the state economy was developing so fast, there was a need for more qualified people in different areas of specialization to accompany these changes and meet the labour market's needs. Therefore, in 1977 a new law was issued to establish the University of Qatar to provide more educational opportunities for training and research in numerous areas of specialization. Subsequently, the number of departments, programmes, teaching staff, and students has increased continuously to fulfil the state market needs. Currently the university includes 21 departments in different areas, including science, education, human and social studies, and Islamic studies, and over time new colleges were founded, to provide various courses and programmes in many fields. The College of Education includes departments of Educational Sciences, Psychological Sciences, Art Education, Physical Education and Sport Sciences. The College of Arts and Sciences provides Mass Communication, Humanities, Social Sciences, Foreign Languages, Arabic Languages, Chemistry and Earth Sciences, Biological Sciences, Health Sciences, Mathematics and Physics. The university also has a College of Sharia and Islamic Studies with three departments; a College of Law; a College of Engineering that offers eight different programmes; and, finally, a College of Business and Economics, which has four departments. All these colleges and departments offer a variety of programmes and courses that are designed to fulfil the needs of Qatar's society and its economic development needs for various branches of knowledge. In addition, these departments offer students in the state and abroad full-time and part-time courses leading undergraduate and postgraduate degrees in different subjects (Qatar University, 2008).

In addition to those colleges, in 1995 the university established the Office of Continuing Education to provide the public and private sectors in the society with different courses, programmes, and training sessions that help to satisfy their professional and skills needs, besides conducting research related to developmental and social issues. Moreover, the university has four research units that encourage university staff and researchers to apply their knowledge and experience in the real world. These units are the Environmental Study Centre, the Central Laboratories Unit, the Scientific Publications Unit, and the Materials Technology Unit. University education is free for all citizens, and the university offers bachelor's degrees in all of its faculties, besides postgraduate diplomas in some specific areas. Recently, the university introduced master's degrees in some fields, such as Business Administration and Environmental Studies

In addition, the state has attracted some academic institutes that offer additional academic programmes and courses to suit students' desires and the state's needs from different sectors in the various areas of interest. These include the new College of the North Atlantic-Qatar (CAN-Q), Cornell University's Medical School and others. More detail and information about the new academic institutes and establishments in Qatar will be provided later in the section on Qatar Foundation (section 2.6).

2.5. Recent Development in the Education System

Continuous concern has been shown by His Highness Sheikh Hamad Bin Khalifa Al-Thani, Emir of Qatar with planning and developing better education in the State. Therefore, the government has adopted new strategies in education under the slogan, "Education for a New Stage". In consequence, in November 2002, Qatar witnessed an Emiri decree that established The Supreme Education Council (SEC) and affiliated institutions to assume the supreme authority of working out the educational policy in Qatar and supervising the implementation of the development plan. The Qatar education reform initiative is based on four principles, namely:

> *autonomy: Allowing schools and teachers to be innovative in their approach to meeting the needs of individual students and parents, within a framework of international curriculum standards; Accountability: Implementing an objective and transparent assessment system to hold all school leaders, teachers and parents responsible for the success of students; Variety: Encouraging different kinds of schools and instructional programs; Choice: Allowing parents to select the school that best fits their children needs* (Supreme Education Council, 2008).

The overall aim of this new movement is to create a sound educational environment to enable students and independent schools to achieve the highest level of performance and excellence through the provision of various educational alternatives that enable parents to choose what suits the needs of their children. The implementation plan depends on two fundamental elements: a comprehensive educational evaluation of students' performance and schools and the establishment of government-funded independent schools. The Higher Council of Education looks after the education and assessment procedures in schools. Its main concern is with developing new effective strategies and plans to raise standards in the education and assessment practices in the state. In addition, one of its main concerns is teachers' professional development through the encouragement of training sessions and workshops on different aspects of education and assessment. The Supreme Council of

Education has established strategic relationships with the most advanced institutes and organizations to provide Qatar's schools with the best education quality (Supreme Education Council, 2008).

After its foundation, the Supreme Council for Education started to implement the new education policy of creating independent schools. Independent schools are government-funded, but established and supervised by the Supreme Education Council and its education institute rather than the Ministry of Education. Their objective is to provide a creative environment and child-focused instruction that may enhance achievement and scholarship. They cover all stages (primary, preparatory, and secondary). Independent schools are designed to provide a more effective and creative education environment where students have more freedom to express themselves and their opinions and to apply their knowledge and skills through different media. One of the objectives in this plan is to give schools the freedom to design their own instructional plans and teaching methods that fit their students' needs, besides encouraging parents to participate effectively in their children's education through schools' governing bodies (Ministry of Education, 2007).

Regarding students' needs, the emphasis will be on providing them with major skills that are important for their future through the application of critical thinking skills, decision-making, problem solving, teamwork, creativity, and the ability to use technology and to communicate effectively. In addition, the new schools will be directed by new curriculum standards in Arabic, English, mathematics and science, based on international benchmarks. The teachers in the SEC's Teacher Preparation Certification Programme will be given specialized training to help integrate the new curriculum standards into instruction at these schools. Tuition is free for all Qatari citizens and others eligible, and parents will have the right to choose the schools that suit their children's needs. The independent

schools themselves recruit their own teaching and administrative staff, while the Supreme Council for Education undertakes the continuous assessment of the performance of such schools though multiple objective assessment methods. Furthermore, annual assessments of students' learning will ensure that the schools' instruction is in line with curriculum standards, while periodic financial reviews and an annual external audit will ensure financial accountability. Since September 2004, 12 independent schools have been established by the Supreme Education Council, including five primary schools, two preparatory schools, four education complexes, and one secondary school (Supreme Education Council, 2008).

2.6.   Qatar Foundation for Education (QF)

In 1995, the country witnessed the establishment of Qatar Foundation for Education, Science and Community Development. Qatar Foundation is a private, chartered, and non-profit organization whose objectives are:

> *guided by the principle that a nation's greatest resource is the potential of its people, Qatar Foundation aims to develop that potential through a network of centres devoted to progressive education, research and community welfare* (Qatar Foundation, 2008).

The main objective of this educational establishment is to provide people in Qatar and the region with the important and essential tools to be prepared for ongoing development in different areas. Another significant goal is to make Qatar a centre of high quality education and research to benefit people from different countries in the region.

In order to fulfil these important missions, His Highness the Emir Sheikh Hamad bin Khalifa Al-Thani gave instructions for the establishment of the Education City, which is chaired by Her Highness Sheikha Mozah Bint Nasser Al Missned, the Emir's consort. The city houses some of the major world's finest academic institutions on a 7-million

square-metre site and is set to position Doha as a key centre for the advancement of the people of Qatar and other states in the region. The Education City is already flourishing and providing world-class educational facilities from kindergarten through junior and secondary levels to internationally recognized graduate and post-graduate studies and research programmes. Among the important academic institutions that are already established in the city are Carnegie Mellon University, Georgetown University, Texas A and M University, Virginia Commonwealth School of the Arts, and Weill Cornell Medical College. These academic institutions provide students from various countries with a range of programmes to prepare them for their future responsibilities. In addition, the Education City hosts Qatar Academy, the Learning Centre, the Academic Bridge Programme, the RAND-Qatar Policy Institute, Al Shaqab Stud and Riding Academy, and Fitch Qatar and Qatar Science and Technology Park. Besides these establishments, there are plans for various projects to be launched in the future, including a state-of-the-art conference facility, a cultural centre, and Sidra's 400-bed, all –digital academic medical centre (Qatar Foundation, 2008)

One of the important projects that were established in 2006 through the Qatar Foundation is the Qatar National Research Fund to support the establishment of academic research in Qatar from universities and academic centres inside the State of Qatar. The main aim of this grant is to encourage researchers in the country, from different universities and academic backgrounds, to produce quality research that supports the advance of knowledge and provides valuable results that may help in improving the practices in every area of life.

2.7   <u>Testing Regulations and Rules</u>

One of the major components in any educational system is a well designed assessment and evaluation plan for assessing students' achievement. In 1996, the Ministry of Education established and published two main lists regarding the main aspects of students' evaluation for all grades, from grade 1 to grade 12, to ensure that school advisors, school administrators, and teachers understand all the rules, regulations, and requirements relevant to students' assessments through different examinations and activities. The first list (Ministry of Education, 1996b) is for student assessments from grade 1 in primary education until grade 11 in secondary education. The second list (Ministry of Education, 1996c), however, focus on student assessment for grade 12, when students take the final examinations that may qualify them, depending on their results, to proceed to undergraduate education in universities. The lists have various chapters that explain the appropriate ways to score students' exams. They provide information regarding the rules that should be followed in assessing students' performance, including accounting for situations where students cannot attend the main examinations or have disabilities that may hinder them from taking exams alongside their peers. They also provide rules for assessment on special educational programmes. The lists include the following chapters: general regulation rules, the assessment system, the re-sit examination for failed students, absence regulations, examination of students with disabilities, students' regulations in exam panel, results' revision rules, upgrading students from one grade to another, homeschooling examinations, and general regulations. In addition to these chapters, the lists provide various appendices detailing the maximum and minimum marks in each subject for each grade, guidelines for constructing and writing test items, duties and obligations to be followed by the examination board, and instructions for evaluation of scores.

Before proceeding to explaining the differences between the two lists pertaining to the secondary education level, it is important to clarify some major points about the assessment rules and regulations, where both lists have similarities. First of all, the education year is divided into two main equal semesters, where students have responsibilities toward classroom activities and school exams. Each grade has its own subjects that differ according to students' age and type of education they are involved in. For each subject, there are minimum and maximum marks between which students' scores must fall, and the minimum mark for the most subjects is half of the maximum mark (Ministry of Education, 1996b; Ministry of Education, 1996c).

All students, in order to pass the current grade level and proceed to the next must attend all the examinations, for the two semesters, for subjects that have a minimum mark. Furthermore, for all such subjects, they must obtain, at least, the minimum, after the marks from the two semesters are added together, to pass each subject successfully. Students who do not meet these two requirements will be failed. There are some rules that must be followed by schools in calculating students' final marks in each subject for every semester and in re-sit exams. These rules include amending fractions by means of the following procedures:

a) Amend what is below half to become one-half;

b) Stabilise the half;

c) Amend what is more than half to become one. (Ministry of Education, 1996b; Ministry of Education, 1996c)

In certain cases, where students fail to pass one or more subjects, or have authorized absence from exams, they may have the opportunity to re-sit those subjects they did not pass. In such cases, the mark that is given in these re-sit exams constitutes 100% of the total

mark, since there are no other marks to combine them with. However, the final mark and percentage is affected by students' past attendance of previous examination, mid-term and the end of term exams, in each semester.

The differences in the grading procedures between key stages10, 11 and key stage 12 occur when calculating the final mark that students should gain at the end of the school year. In key stages 10 and 11, the final mark that is given to Student's evaluation in each subject in each term is made up of three different components;

1) The mid-term exam (30%);

2) Students' participation (10%), and ;

3) End of term exam (60%) (Ministry of Education, 1996b, p.9).

The mid-term exam in each semester is usually set by the teacher in the first semester and held during lesson time. It may include written, oral, and practical components, according to the nature of each subject and its requirements in the set syllabus. In addition, teachers allocate 10% of the final grade in each semester to evaluate students according to their participation in classroom activities, doing homework, caring for the subject, the books, classroom discipline…etc. Finally, the end of term exam in each semester account for 60% of the total score for that term. This, too, could be written, oral and a practical, according to the nature of the subject and the set syllabus, but these are standardised questions for each grade level in each school, and not based on teachers' own assessment in their classrooms.

The final marks in semester are calculated by adding students' score for the three components for each subject, (see table 2.2) (Ministry of Education, 1996b).

Table 2.2
Students' Final Mark at the End of each Semester

Mid-term exam mark	Participation mark	End of term exam mark	Total mark
30%	10%	60%	100%

The total mark in each subject for every student at the end of the year is then calculated by adding the two scores from the mid-year and end of year exams (see table 2.3).

Table 2.3
Students' Final Mark at the End of the School Year

First term mark	Second term mark	Total mark
50%	50%	100%

For example, if the total mark for a given subject is set at 50, then each semester will have 50% of this mark, so the marks available for that subject will be 25 for each semester. The distribution of the 25 marks across the three components will be calculated as follows in table 2.4:

Table 2.4
Example: Students' Final Mark at the End of each Semester

Mid-term exam mark	Participation mark	End of term exam	Total
30%	10%	60%	100%
(7.5)	(2.5)	(15)	(25)

Then, the marks given in each semester are added together to form the total mark (50) at the

end of the school year, as shown in table 2.5:

Table 2.5
Students' Final Mark at the End of the School Year

First term	Second term	Total
50% (25)	50% (25)	100% (50)

For example, if student's final mark in the first term was 22 out of 25, and in the second

term was 20 out of 25, his/her final score at the end of school year would be 42 out of 50 as

shown in table 2.6:

Table 2.6
Example: Students' Final Mark at the End of the School Year

Marks / Term	Maximum mark	End of term
First	25	22
Second	25	20
Final mark	50	42

However, there are other subjects that have different grading procedures according to their

nature, such as family education and computer science. In family education, the total mark

is 50, and the mark for each semester is 25. Half of this mark, 12.5, is given for the

practical part, while the remainder is given to the theoretical part. In computer science,

however, the distribution of the marks is quite different. The final mark for this subject is

100, with 50 the given mark for each semester. Within this mark, 15 marks (30%) are given

for the mid-term exam and 30 marks (60%) for end of term exam, while the activity mark is

5 (10%).

Within the total mark for the mid-term exam, 9 marks are given for the practical part, and 6 marks for the theoretical part. For total mark for the end of term exam 18 marks are given for the practical part and 12 marks for the theoretical part. In the activity mark, 5 marks, 3 marks are given for practical part and 2 marks for the theoretical part in the total activity mark (Ministry of Education, 1996b).

The grading rules for grade level 12, according to the Ministry of Education (1996c), however, are different from the system in the previous grades. This level is the end of secondary school, after which students graduate with the General Secondary Certificate and may enrol in a university. It is considered a high stakes level, as students' future is determined based on the scores and percentages obtained in final examinations.

Students are assessed in each term solely based on two main exams, without any marks being allocated for their participation in the activities. The maximum mark for each subject is distributed equally between the two terms. The mark for each subject differs according to the type of education that students are studying. The minimum requirement to pass each subject is 50% of the total mark available for each subject, except for a few subjects, where the requirement may be lower (Ministry of Education, 1996c).

For students with certain disabilities, specific rules and regulations are set to meet their needs. In addition, students who have not attended the exams for one or both semesters for certain reasons and whose absence is authorized, and also those who failed to pass certain subjects, have another chance to pass these subjects by taking re-sit examinations.

2.7.1. Guidelines for Constructions of Achievement Tests

The Ministry of Education has provided directions and guidance for constructing items that will be written in tests (Ministry of Education, 1996a; Ministry of Education, 1996b). It has also set some rules for appointing those who will construct tests for the various grades. However, the procedure for choosing those professionals who will build tests depends on the grade level. For grades 10 and 11, the school principal should decide, according to specific attributes, such as honesty, competence, and morality, who is suitable to be chosen to construct tests for any of the exams, whether mid-term, end of term, or re-sits. It is not necessary for those chosen to write test items to construct all three exam papers (Ministry of Education, 1996b).

For grade 12, however, those who will construct the test items are nominated by the Head of Educational Guidance in consultation of subject directors. They are to be loyal, capable and sincere. The Assignments for those who will construct test items in each subject will be issued by the Deputy Minister (Ministry of Education, 1996c).

Test developers for all grades should meet the following requirements to ensure their neutrality and honesty:

1- Have no relationship of first degree with any student who is expected to sit for the exam;

2- Not give private lessons to any of the students for whom they will write questions;

3- Not have any decision against them preventing them from participating in examination responsibilities.

All test developers must sign a commitment regarding their compliance with those requirements. Those who are not assigned to develop tests are not allowed, in any circumstances, to look at these tests. Those who construct tests for students must comply with the following rules:

1-Before constructing test items, test developers should acquaint themselves with:

a) Objectives of the grade for which they will construct tests;

b) The subject objectives to be assessed;

c) The behavioural objectives of the specific curriculum that will be assessed;

d) The contents of the syllabus;

e) The learning capabilities, values and skills intended to be achieved in each educational unit.

The main aim of these requirements is to ensure that the evaluation process is harmonious with the planned objectives, embodies the curriculum syllabus, and measures the educational goals acquired and achieved.

2- When building questions the following must be considered:

a) To cover the syllabus units in a balanced way and not depend on random selection which depends on luck and chance.

b) Questions must assess the higher-order thinking abilities, such as knowledge, understanding, application, analysis, synthesis, and evaluation, and not just focusing on assessing memorization and recall of information.

c) Questions must be diverse and varied to include typical and subjective questions, in addition to questions that evaluate differentiation, scientific thinking, mental inference, explanation, justification and other skills and abilities.

3- Questions must be drafted in clear, correct and simple language appropriate to students' level of language development. Sentences in compound questions should be shortened and must not have more than one meaning so that they are not vague for students to answer.

4- There must be more questions to choose from in the test than are required to be answered, so as to give students a wide range of choices and selection to be answered in order to avoid some negative effects of test anxiety, such as temporarily forgetting answers and not concentrating.

5- They should avoid compound questions that are very complicated and involve several parts in each question, with each part depending on previous answers, since this may cause students who could not answer the first parts to be more frustrated.

6- They should avoid general questions that do not have a definite answer, they are likely to have more than one answer, or have open answers, since answering them may consume too much of students' time.

7- They should be aware that the main objective of the test is to evaluate students' educational achievement and attainment on the one hand and their knowledge, culture, and academic gains and growth on the other hand. Therefore, the test developer should not construct test items that are too complicated, that are beyond students' age and challenge their capabilities and mental growth. At the same time, the questions must not be too easy, so that they fail to stimulate students' mental activity and intelligence.

8- After writing all test items, questions should be revised to make sure that they, as a whole, are homogeneous and formulated to be an objective evaluation of students' achievement and their knowledge growth (Ministry of Education, 1996b; Ministry of Education, 1996b).

These are the main guidelines regarding the rules and regulations to follow to ensure better test quality, taking into account the basic requirements for constructing reliable and valid tests that precisely assess students' actual achievement and growth in knowledge throughout their period of study.

2.8.   Additional Assessment Resources

In addition to the above guidelines regarding test construction and its regulations, the Ministry of Education through its Curriculum and Textbooks Department provides teachers with various resources to aid them in their teaching. These include a teachers' guide book for every subject, which has various chapters regarding the educational objectives to be achieved, some test items that can be used in teacher made tests, and guidelines about the way to teach every section of the curriculum and syllabus. Besides, there is also a teachers' guidebook on constructing classroom achievement tests, which is designed to guide teachers in the appropriate ways to construct achievement tests in every subject, and provide guidance on the scientific way of writing test items. These include determining the main objectives behind the use of tests, designing the achievement test plan, methods and requirements of constructing test items, test application, analysing test sections and evaluating the test in general, reporting test results, and ready-made examples of achievement tests in various subjects (Allam, 1995).

The educational advice section within the Curriculum and Textbooks Department provides those in charge of supervising and advising teachers on best practice with an explanatory guidance book on how to deal with class and non-class observation forms, in addition to the teachers' development plan and their self evaluation forms. The first two forms are used to evaluate teachers' practices inside and outside the classroom

environment. The in-class observation form includes the teachers' lesson plan and its application in the classroom, the assessment plan, and classroom management. The non-classroom observation form includes teachers' planning procedures for each semester, written and practical work, and professional responsibilities, including constructing achievement tests. The development plan contains strategies that may help teachers to overcome any obstacles during their teaching practices. It is intended also to suggest some procedures that could help in improving their practices, to be more effective. The last form, the self evaluation form, is designed to give teachers the chance to assess themselves regarding all aspects of the learning process. This includes instructional planning, defining and formulating the learning objectives, personal characteristics and human relationships, classroom management, stimulation and motivation of students. It also assesses ability to construct classroom assessments, feedback and reinforcement, using educational media in classroom instruction, written responsibilities, and finally homework and classroom activities (Ministry of Education, 2007b).

In addition, there is an Assessment and Evaluation unit at the Curriculum Department that has many responsibilities toward schools and teachers. Among them are;

1- Updating the assessment and evaluation techniques and defining the relevant tools in a scientific manner.

2- Applying diverse assessment and evaluation procedures that are related to the planned educational objectives, and in the way that is consistent with possible conditions.

3- Improving the testing system and ways of evaluating it to improve it, and supervising the establishment of question banks for the various educational subjects.

4- Planning and implementing training programmes to develop the effectiveness of technical workers in the following fields:

   a) designing behavioural objectives and the procedures for assessing and evaluating them;

   b) Constructing tests, and the way to develop test items and assess and evaluate them;

   c) Evaluating educational programmes.

In addition to these responsibilities, which the Assessment and Evaluation Unit concentrates on, it also supports the different departments in the Ministry of Education by giving consultation in the area of assessment and evaluation, and informs them of the different techniques and procedures in this field. The unit is also responsible to keep abreast of developments in the assessment and evaluation field, and how to employ any new techniques in the educational process. Finally, the unit is accountable also for any job that is assigned for it related to its work (Ministry of Education, 1996d).

2.9   Secondary School Teacher Training on Assessment

Whilst instruction and the curriculum are two major parts of the learning process, assessment is also important in harmony with these two elements. Student-teachers are usually provided with information regarding assessment, instructional design, and curriculum development in undergraduate courses at the universities. However, since new topics have been introduced in education about assessment procedures and techniques, such as assessment for learning in general and formative assessment in specific, it is important to incorporate new training programmes that can introduce these new types of assessment methods. According to recent statistics, issued by the Ministry of Education, the total

number of male and female teachers who work in secondary schools is 1703, and the number of teachers who have a non-educational qualification is 676, of whom 432 are men and 244 are women (Ministry of Education, 2007a). According to these figures, it is important to design training courses in various topics to help teachers with less qualification to obtain sufficient information about various aspects in the leaning process. Courses on assessment methods were among the planned training sessions. From the school year 2000/2001 to 2004/2005, the number of assessment courses that were given to teachers was 8 courses. Among the 240 teachers who took part in these courses, 169 were males and 71 were females. The following table (Table 2.7), shows some figures regarding total number of training courses, besides teachers who participated in these courses.

Table 2.7
The Total Number of Courses and Teachers Involved in the Training

Detail / Year	No. of courses	No. of Participants		Total
		M	F	
2000/2001	2	76	32	108
2001/2002	3	21	39	60
2002/2003	1	14	-	14
2003/2004	-	-	-	-
2004/2005	2	58	-	58
Total	8	169	71	240

In the school year 2000/2001, 24 training courses on various educational topics that were held for secondary school teachers, 11 for men and 13 for women. Among all these courses, there were just two courses were related to assessment and evaluation; one about test construction in mathematics, in which 25 male teachers participated, and the other course about constructing achievement tests in research skills, in which 51 teachers participated, 19 men and 32 women. No assessment courses have been designed for secondary school supervisors (Ministry of Education, 2002).

In the calendar year 2001/2002, the overall number of training courses for secondary school teachers was decreased to 23, 9 for men and 14 for women, but the number of courses that were about assessment and evaluation in education increased to three. The first one, for male teachers of mathematics, involved 21 teachers. The other two courses were designed for female teachers, one for teachers of philosophy and social studies, in which 27 teachers participated, and the other for teachers of social studies, in which 12 teachers took part. There was one course for female school supervisors, and 7 supervisors participated in this course.

In the school year 2002/2003, there were 29 training courses for secondary school teachers, 10 for males and 19 for females. Only one of these was about assessment and evaluation, and it was designed for 14 male teachers of geography. There were no courses assigned for female teachers on assessment practices. In 2003/2004, the total number of training courses was 17, 9 for male teachers and 8 for female teachers, and just one course was about testing for 15 teachers, 5 males and 10 females. In 2004/2005, the total number of workshops was 21, 10 for men and 11 for women. There were two training courses about constructing achievement tests, both for male teachers. The first course, for teachers of social studies, included 39 teachers, and the second course, for religious education teachers, involved 19 teachers. No statistical figures have been published for subsequent year, regarding training courses for all education stages (Ministry of Education, 2007a).

2.10. <u>Studies about Assessment Application in Schools</u>

Some studies (Abbara, 1991; Goniem, 1992; Bushurbak, 1993) have discussed some issues related to the examination system in Qatar's schools and teacher training in general. Other studies, however (Al-Hammadi, 1996; Al-Suwadi, Al-Nail, & Al-Hor, 1999) evaluated teachers' professional development and aspects related to teachers' training in general. Abbara (1991) studied testing of English as a foreign language in Qatar schools. He indicated that most teacher-made and school inspectors' tests were limited in their benefits. Their main aim was to assign grades, and no attempts were made to benefit from students' responses on tests to determine their actual educational performance strengths and weaknesses. He believed that the testing system at that time did not have the appropriate tools to determine whether students had achieved the intended objectives, which should be the major aim of assessing students through tests (Popham, 2004). According to his research findings, the main aim of teacher-made-tests was to pass students from one grade to another , not because teachers did not want to use the testing results in beneficial ways, but because they did not have any idea about the appropriate ways to get more information from test results than the scores themselves. Abbara also explained that testing results were not used to modify teaching practices, since there was no relationship between them, and he highlighted the importance of planning for teachers' professional development through in-service training.

Another important study about testing in Qatar's schools was done by Goniem, in 1992. According to Goniem's research results, most participants questioned agreed that the assessment and evaluation system needed to be changed. Among the shortcoming of the testing system was that the large number of tests during the school year consumed too much of teachers' time, which could have been spent on teaching. The tests, according to

participants, focused on essay-type test items, and therefore measured low thinking abilities, such as memorising facts and information. Teachers believed that the test items focused on some parts of the information in the textbooks and, therefore, they did not represent the whole textbooks, consequently being inadequate and invalid as measures of students' real achievement. In his study, the participants indicated that the test plan lacked objective tests and focused on essay items. The participants believed that there were no training programmes in assessment and evaluation to train teachers about the scientific ways to construct achievement tests. Therefore, they concluded that most teachers lacked information regarding assessment and evaluation techniques. They also indicated there were no resources available to them, such as specialists in educational assessment and evaluation at the Ministry of Education.

In addition, the participants believed that many of the workers in the educational system did not have a clear idea about the main education objectives, or understanding of the current objectives and ways of implementing these within the learning process. Another problem that arose concerned the curriculum and text books. The curriculum was attacked for containing to a huge amount of information, at the expense of quality. This led to students being overloaded with information and obliged to memorise information, since this was the only way to pass their exams and tests. The concentration on books alone as the main sources of knowledge and easy to teach and understand caused teachers and students to ignore other potentially helpful external sources of knowledge. Goniem also found that many teachers were not educationally qualified to teach in schools, since they did not have any educational certificates or degrees. Therefore, he asserted the importance of planning for teacher training in the various aspect of education.

Boshorbak (1993) carried out another important study that drew attention to some weaknesses in the assessment and evaluation system in public schools. Most of the research findings agreed with Goniem's findings. Boshorbak found from his interviews with participants that the testing system needed to be evaluated again with a view to improvement, since the system put pressure on teachers with the intensive testing procedures during the year. He found that test revision and marking procedures consumed time, and the current tests concentrated on and measured low abilities, and would not give a correct assessment of students' authentic performance and attainment. His findings regarding teachers' lack of assessment and evaluation understanding, lack of training on this particular issue, and absence of assessment training staff, confirmed those of Goniem.

Al-Hammadi (1996) conducted a study about the importance of teachers' proficiency in some basic skills, based on advisors and teachers' views. Among the skills that he discussed in his study were educational objectives, reinforcement, motivational stimulation, classroom questioning, and evaluation. According to his findings, advisors' views concerning the importance of all these skills were significantly different from teachers' views, the former considering them more important. The researcher attributed this to the actual differences in work between advisors and teachers, and between what should be done and what was practised in schools. Besides, he indicated that the years of experience was among the factors that accounted for these differences, since the advisors sample were more experienced than the teachers' sample.

Another statistically significant difference was found in male and female teachers' responses regarding two basic skills, educational objectives and reinforcement. The researcher attributed this to the actual differences in the educational objectives that are planned for boys and girls, besides the differences in reinforcement procedures between

boys' and girls' schools. Also, teachers with 10 to 20 years of experience viewed those educational objectives as an important basic skill more than teachers with fewer years of experience. However, no differences were found on the importance of other basic skills related to assessments, such as classroom questioning and evaluation (Al-Hammadi, 1996). Moreover, no differences were found between teachers according to their subjects, regarding their views of the five basic skills.

In 1999, the Ministry of Education planned for a project to evaluate schools' performance in various areas. The initial study was done on 13 schools, including boys and girls and different stages. The evaluation tackled various elements; besides the assessment and evaluation system, it examined educational achievement, students' behaviour and attitudes, teaching quality, and classroom size. According to the evaluation findings, 9 schools said that the educational achievement of students was good, while 4 schools said it was very good. Regarding the assessment and evaluation system in schools, 8 schools indicated that the system was good, while 5 schools signified it as acceptable. After that, the Ministry of Education, as part of its cooperation and partnership with the Office of Standards in Education (OFSTED) in England, sent for a group of experts in the office to evaluate their evaluation of school performance. The OFSTED experts group prepared a report about the project, which described it as successful and efficient, and said that the ministry had been successful in planning and developing an evaluation system in a short time. The project had achieved its objectives and was effective. However, the report commented on the importance of providing feedback to schools about the evaluation results to improve schools' practices. The experts' report also denoted the need for establishing an evaluation institution and constructing and developing national tests that focus on the essential skills and facilitate performing comparisons (Ministry of Education, 2007c).

Training teachers to keep up-to-date with recent development in education is one of the major important aspects to be taken into consideration. It helps to transmit the benefits from teachers who took the training courses to their peers in schools. For example, formative assessment was introduced recently in some countries around the globe, and is adopted by some countries, such as the United Kingdom, the United States, Australia, and New Zealand. According to Richard Stiggins' experience of the application of formative assessment in the United States and professional ability to understand the benefits of such a system, he indicated that:

> teachers' preparation programmes and school leader preparation programmes have not taught teachers how to use assessment productively in instruction. That continues to be the case today (Electronic Education Report, 2007, p.5).

The same concept could be applied to assessment practices in Qatar's schools, since some studies have noted a conflict between educational studies' findings and the training programmes set by the Ministry of Education (Al-Suwadi, Al-Nail, & Al-Hor, 1999). This study found that even though the Ministry of Education increases the training for the various educational stages every year, the training priorities, however, are not designed to correspond to the results of practical studies about training needs, to help in planning for training programmes according to the actual training needs (Al-Sadah, I. as sited in Al-Suwadi, Al-Nail, & Al-Hor, 1999).

Furthermore, most of the training courses' objectives are not defined, and even where objectives are stated, they are very general and not explicit. The training sessions' content focuses on teachers' knowledge of the subject they teach, not on their professional and educational skills. In addition, there is no evidence that teachers are involved in designing the topics of the training sessions, to correspond to their training needs. Other

reports showed that 77% of teachers who teach in public education in Qatar schools believe that they are in great need of more training courses (Al-Suwadi, Al-Nail, & Al-Hor, 1999).

2.11. <u>**Conclusion**</u>

Education in Qatar has developed increasingly in recent years. The number of students who benefited from public education has risen over the years, as have the number of teachers, staff, and schools. Currently, the main focus of the government is on the quality of the education programmes offered to students in all stages. Therefore, the state has implemented new education strategies to ensure the total quality in education. This includes designing new school buildings incorporating many educational facilities that are important in the teaching and learning process. Besides public education, the state has introduced independent schools as another education alternative that provides parents with additional choices for the benefit of their children. The government has also attracted more academic institutions and establishments in various disciplines to offer students a wider range of undergraduate and postgraduate courses, in line with the state's great need of more skilled and knowledgeable personnel to keep pace with the rapid development in every sector in the country. These developments are accompanied by concerns with monitoring and assessment, in order to ensure that these tools are appropriate for the new missions and standards. An examination of current assessment practices in the state is therefore essential.

The information provided in this chapter showed that the Ministry of Education has set well defined regulations and rules that control testing practices in all educational stages, from primary to secondary schools. The main purpose of these regulations is to ensure the objectivity of the examiners and those who are in the charge of constructing achievement tests.

These regulations are written in two lists, one list for grades 1 to 11, and the other for grade 12, the general secondary certificate. The two lists are very similar, except some differences in assigning persons who will construct tests in stage 10 and 11 and those in stage 12, and differences regarding grading rules in these stages.

Information regarding assessment resources at the ministry, besides statistical figures about secondary schools teachers' qualifications and their training on assessment, was also presented. This showed differences in educational qualifications of male and female teachers, and in the training provided to men and women.

Previous studies were reported, that raised some critical issues concerning assessment practices in Qatar's schools. Even though these studies were done in the nineties, they highlighted some concerns about the quality of tests, their main objectives, and the ways they affect the learning process. These studies suggested that the assessment system was limited in its benefits to teachers and learners; it depended on a narrow range of assessment forms, and tested low thinking skills.

Previous researchers have also questioned teachers' understanding of various assessment methods and lack of training on assessment being provided to them. They also indicated the importance of considering teachers' training needs and educational research findings when planning for such courses. Also, they signified the importance of setting clear training objectives and evaluating the training courses to get feedback about their effectiveness for teachers.

The next chapters will provide the theoretical foundation for this study, through in-depth review of issues in educational assessment, beginning in chapter three with a general discussion of the aims of teaching and learning process, the factors that may influence it, and the role of assessment and evaluation within this process.

50

Chapter 3

Assessment Role in the Learning Process

3.1. <u>Introduction</u>

This chapter will introduce some key issues in this study, related to current classroom assessment practices in schools. In the first part of this chapter, the focal point will be on the main purposes of learning in every educational system, that is, to promote students' learning and to guide them to overcome successfully any difficulties that could arise during their learning progression. Furthermore, the same section will introduce some factors that may have a considerable influence on students' achievement, such as the learning environment and students' individual differences and their motivation to learn.

After this, assessment and evaluation as important tools in education policy analysis will be explained. This includes the definition of tests, assessments, and evaluation, besides the application of assessment and evaluation in education. In addition to these aspects, the main purposes and uses of different types of assessment methods in schools will be established. This section is followed by another important part that clarifies the different types of classroom assessment methods, such as formal and informal assessments.

Finally, the last section of this chapter will focus on some major factors that may influence teachers' assessment practices in schools. These factors include teachers' skill with the different assessment forms, in addition to the intensive use of external tests in school to raise standards and evaluate the education system for purposes of accountability.

3.2. __The Main Aim of Schooling__

To begin with, the most significant aim of education is to help students during their learning period to build up their minds and expand their cognitive abilities. Schools should present their students with the opportunity to comprehend real world developments outside their school building, in a way that may help them to identify major aspects of the real world process and to interact within it easily and confidently (Kyriacou, 1998). In so doing, schools seek to increase students' educational attainment to master the intended instructional outcomes. The expression 'educational attainment' includes many processes; it means:

> *a mastery of knowledge or abilities which it was intended that one should master, an outcome of educational activity which was intended...is a fulfilment of educational purposes and thus, very broadly, is seen by us as characterised by rationality of thought* (McIntyre & Brown, 1978, p.41).

Therefore, teachers, schools, and policy makers should make sure their students have mastered sufficient and relevant knowledge about the appropriate way to deal with real life difficulties (McNess et al., 2003). Further, schools should prepare their students to be engaged in their society through the important knowledge and experience that should be gained in the schools. Besides, as part of this endeavour, the school curriculum should encourage students to understand market needs and the future workforce requirements, to help them to identify what society needs and to discover and decide for themselves what might fit easily with these new desires. To this end, policy makers believe that the main objective of schooling and education is:

> *the transmission of a predetermined body of subject-delineated knowledge broken down into a series of 'levels' to be presented to learners in the most 'effective' way, as a means of maximising predominantly academic goals* (McNess et al., 2003, p.248).

However, there are some variables that interact with the teaching and learning process and prevent students from achieving the intended objectives. These variables include the learning environment, students' individual differences, and others. The next paragraphs will determine these variables and their potential effects on students' academic progress.

3.3.   Factors that Influence Students' Academic Attainment

Some significant studies (Gipps & Tunstall, 1998; Brophy, 2004; Petty, 2004) in education and psychology have shown that there are a number of important psychological and social variables that have crucial effects on students' learning, and they have a direct influence on students' attainment. There are around 14 factors, according to the American Psychological Association, that may have a significant influence on students and the learning process. Among these factors are individual differences, the learning environment, test anxiety, teachers' expectations, students' motivation to learn, developmental and social factors in addition to cognitive and meta-cognitive factors (EPPI-Centre, 2002). Therefore, it is important to consider the consequences of these factors as a source of problems that may affect students' attainment during their learning. In addition, the application of more effective teaching methods that take into account classroom atmosphere and students' characteristics has become an important issue in education.

With this in mind, the focus of this section will be on three issues; the learning environment, individual differences and students' motivation. The main reason for choosing those specific factors is because they are directly related to students' achievement and could be affected, positively and/or negatively, through the application of educational assessments in classrooms. However, these are not the only elements that could be influenced by the assessment process in classrooms. Some previous studies (Covington &

Omelich, 1985; Goldstein & Blatchford, 1998; Keith, 1982; Farrow, Tymms & Henderson, 1999; Wentzel, 1991; EPPI-Centre, 2002; Strand, 1999) suggested that there are some other possible aspects, related to schools and/or students, that may have a significant influence on students' success, such as school effectiveness, students' ability and effort valuation, increased homework time, and students' social responsibilities. Other studies focused on other aspects like class size (Preece, 1987; Blatchford, Goldstein, Martin & William, 2002; Blatchford, Bassett, Goldstein & Martin, 2003; Lee 2004) students' shyness (Crozier & Hostettler, 2003) and gender (Tinklin, 2003; Gorard, Rees & Salisbury, 2001). Wentzel (1991) believed that there are other factors, in addition to these major ones, that have an influence on students' academic progress, which are related to children's mental and psychological development. The following sections will introduce some of those important factors in more detail.

3.3.1. Learning Environment

Richards (1989) believed that genetic inheritance is responsible for individual intelligence and that no one can do anything to increase intelligence beyond the maximum limit genetically endowed. However, other research findings (Bassett, et al., 1978) suggested that although genetic inheritance could be one important factor that contributes to individual intelligence, it is not the only factor; environment also plays a major role in individuals' intelligence, with positive or negative effects, such as the learning experiences. The influence of the learning environment is different from one age level to another, and some studies (Anderman et al., 1994) indicated that for students in middle grades and adolescence, there are some factors related to the school environment that may have a great influence on students' motivation to learn.

Bassett and his colleagues indicated that there is a significant interaction between children's genetic inheritance and the environment in which they are raised, during which the children are positive actors in this process. Since they respond differently to the influential factors from the environment, each child will have a different intelligence level and will carry different characteristics, according to their unique response to those environmental factors. In fact, it is children's interaction with others that develops their thinking abilities and helps them to gain experiences in life (Fisher, 2005).

In addition to intelligence, environment is thought to influence motivation to learn. The environment includes "everything from prenatal anoxia to sympathetic teaching" (Richards, 1989, p.249), in addition to other major variables, such as native language. However, the essential issue that needs to be investigated more is the degree to which the environment variable has an effect on intelligence, and how the effects differ from one person to another. Pointon (2000) investigated the influences of transferring from the primary to secondary school environment on students' motivation towards learning, through interviews with first year students in a secondary school. This study showed that the school environment may have significant effects on students' motivation to study and learn. Most of the students who participated in the study indicated that an aspect of the secondary school environment they liked was moving from one classroom to another. They enjoyed having different and special classrooms equipped for specific subjects, such as computers and science laboratories. In addition, they had a stronger sense of the change of subjects and learning styles during this process, and they were more able to consider what they had studied before. Students had a feeling of freedom when moving from one room to another, and were more relaxed. This shows the importance of taking into account the importance of the learning environment in students' educational life. The learning

environment should be managed to be more enjoyable and pleasant for students, to make the learning process more effective. Furthermore, by doing this, schools could help their students to build trust and strong positive relationships with their teachers and school administrators, which could lead to successful schooling and better achievement in class.

Other practices that could ensure appropriate classroom environment and maintain students' stimulating to learning and achievement progress may include better classroom management. To reach this level of management, teachers should manage for learning from the first day of the instruction process. This could be accomplished by preparing effectively for each lesson and by introducing multi-classroom activities that could suit every student's needs (Brophy, 1986).

3.3.2. Teachers' Instructional Practices

Another important element that has its effects on students' academic performance is teachers' influence. Since students usually spend around a quarter of the whole day interacting with their teachers in school, teachers tend to have a major influence on students' achievement. Furthermore, some studies (Brophy, 1986) showed that students' ability to perform well in mastering the curriculum material and achieving the intended instructional goals depends mostly on teachers. Some teachers can motivate their learners to attain academically more during their learning, while other teachers produce less result. For teachers to be more effective in increasing their learners' attainment, they should have clear instructional objectives and well designed plans that represent the curriculum content and encourage more time for classroom activities. The way that teachers present the curriculum content and their capability in transmitting ideas and encouraging active involvement of students have major effects on students' ability to comprehend those ideas

through dynamic engagement. This includes giving students classroom assignments with different levels of difficulty to make sure that all students participate in these assignments, and to ensure that work is challenging for all learners of different abilities (Brophy, 1986).

Some other activities that may increase learners' ability to achieve more in class, include exercises that require students to work individually, in addition to activities where students can work together to solve practical problems. All these activities should be accompanied by teachers' observation and immediate feedback as required (Brophy, 1986). Therefore, it is important for teachers to try hard to implement new strategies that encourage students' involvement in active learning in classroom settings. To achieve that, teachers should clearly develop themselves to employ different strategies that make the learning process more encouraging for their students.

3.3.3. The Individual Differences of Learners

In addition to the learning environment, which is related to schools' performance and is believed to have an effect on students' attainment, there are other major elements that may introduce another sort of influence and are related to students' characteristics. These elements are both individual differences and students' motivation. To begin with, individual differences are an additional variable that educationalists believe have significant effects on students' achievement ability. Understanding students' differences with their negative and positive components could help in identifying what aspects may affect students' learning and should be taken into account.

Since individual differences play a major role in people's lives, psychologists have studied the main characteristics and features of these differences to guide them in dealing with individuals, depending on each one unique characteristic. The same important

57

concepts should be applied to educational settings where we deal with more sensitive and less mature individuals, students (Saracho, 1983). For example, the more able students whose talents exceed those of their colleagues could be affected by assessment if the school curriculum cannot set objectives that fulfil their ambitions and challenge them. Consequently, schools should be prepared to assess the strengths and weaknesses of each student individually. After that, they should set objectives and targets that meet each student needs, rather than set targets for the whole class. Besides, different assessment techniques should be planned and employed (Satterly, 1981).

All of these fundamentals should be important aims of school administrations, teachers, and educational departments, as the individuals and institutions that directly interact with students inside schools and design educational policies that have influential effects on schools' strategies. Some research findings (Phillips, 1997) suggest that all professionals who are involved in education, concerned with students' attainment in schools and care about increasing school effectiveness, should make students' academic learning a criterion to assess school effectiveness.

3.3.4.   Students' Motivation to Learn

The second important element, in addition to individual differences, that is related to students' characteristics and has a main influence on students learning, is motivation. There are many factors that are related to students' academic achievement and have imperative effects on their motivation to learn, such as achievement success and failure, reward and punishment, lack of ability and lack of effort (Weiner, 1994). The definition of motivation has more than one element, and it includes the most important aspects of individual characteristics. Mainly, these essential constituents are self-efficacy, self-

regulation, and interest, locus of control, self-esteem, goal orientation and learning disposition. It is important to distinguish between intrinsic and extrinsic motivations that are connected to goals associated with academic performance, since both of them describe students' behaviour in class and have a strong impact on their future performance (Anderman & Maehr, 1994).

Intrinsic motivation signifies the situation in which students enjoy the learning process without any external reinforcements, and have a personal interest in learning. In addition, those learners know that they are in charge of their learning by setting their own targets, actively seek knowledge, and understand their responsibility to apply more effort to succeed. Extrinsic motivation, however, indicates:

> *the behaviour of learners who engage in learning because it is a means to an end that has little to do with the content of what is learned. The incentive for learning is found in rewards such as certification, merit marks, prizes or in avoiding the consequences of failure. Not only does this mean that learning may stop, or at least that effort is decreased, in the absence of such external incentives, it also means that what is learned is closely targeted at behaviour which is rewarded* (EPPI-Centre, 2002, p.12).

Exploration and play are viewed as intrinsic motivators, because they reward individuals through what they give to them during their participation in the process, even though there is no tangible reward like grades or praise (Child, 1986). In addition, another source that could increase learners' motivation during the learning process is their participation in problem solving activities in classrooms. Such activities, whether the problem arises during their study or is set as a practical exercise by teachers, may stimulate them to be engaged in their work (Kaasbøll, 1998). Some other scholars, however, believe that sometimes it is very important to keep using extrinsic rewards as motivators in the classroom settings. The main reason for this is to keep the learners interested to participate in classroom activities,

since some learners tend to not contribute in such activities without the prospect of marks or rewards (Wentzel, 1991).

3.3.4.1.   Tests and Marks as Motivators

Sometimes, what stimulates students' interest in learning depends on the extrinsic reward that they may get from their teachers, and their attention to learning will decrease whenever they get the reward they want or avoid the punishment that they expect. Mostly, in these cases, students will lose interest in learning if they assume that the reward will not be reachable. Therefore, policy makers and school administrators, who usually have substantial effects on teachers' practices, should help instructors to employ their experience in schools. In contrast, teachers should try their best to eliminate, as much as possible, the negative consequences and effects of tests and marks in classrooms. They should help their students to overcome their apprehensions toward tests by applying different kinds of assessments that increase students' motivation and enhance their self-esteem, self-concept, and attitudes toward learning (EPPI-Centre, 2002; Black & Broadfoot, 1982). It has been claimed that:

> *for continued learning, the motive needs to be intrinsic, the reward being in the process of learning and in the recognition of being in control of, and responsible, for one's own learning* (EPPI-Centre, 2002, p.1).

In view of the variety of contributing factors involved, it is hard to insist that students' grades in external tests represent their genuine capabilities. Some professionals who support the extensive and increased application of these tests in schools believe that high-stakes tests "motivate students and help teachers focus on important academic content and skills" (Marchant & Paulson, 2005, p.2). Also, advocates consider these tests very necessary in assessing educational outcomes, since without an efficient evaluation process

that sets and encourages high standards, it will be hard to decide whether a specific method of instruction is effective or not (Crane, 2002). Besides these elements, assessments have another influence on the learning process. The following section will introduce some aspects of assessment and evaluation as major tools in assessing programme effectiveness.

3.4.   The Definition of Test, Assessment, and Evaluation

Terms such as tests, assessments, and evaluation are frequently used in educational settings to introduce techniques being used to measure students' achievement, besides assessing teachers' and school effectiveness (Nitko, 1996). They play a major role in the education setting by providing students, parents, educationalists and policy makers with quantitative and qualitative data that help in designing further plans. All of these beneficial tools have been used increasingly to assess and evaluate programmes, courses, and many other elements in education. Before proceeding in describing how some of these significant factors are used in education, it is essential to define some basic notions that are commonly used to describe the measurement of students' achievement process, to distinguish clearly between the three of them. In fact, some educationalists believe that it is sometimes difficult for others to distinguish between these terms (Kelly, 2004). A test is described as:

> *an instrument or systematic procedure for observing and describing one or more characteristics of a student using either a numerical scale or a classification scheme* (Nitko, 1996, p.6).

Usually, these types of forms are used in schools to assess students' achievement. Any test paper will present students with some items to answer. Students' response to each item in the test will be assigned a mark, and by adding the total marks from all the items, the total score can be obtained. Most tests include formal forms that incorporate the use of various traditional test item formats, such as true/false, matching, completion of sentence, filling

the gaps, multiple-choice, drawings, re-arrangement, and open-ended and closed-ended essays.

Assessments, on the other hand, can include more than one test to assess students' performance. Herbert (1997) defines the term assessment as a method that is applied to collect evidence to estimate or judge the value of a student's attainment. They are more comprehensive than tests, since they incorporate many assessment forms, such as formal and informal methods. Therefore, assessment is a more inclusive term than test, since it involves more testing strategies and measurement methods. In addition, whereas tests always provide a single score that illustrates learners' performance in a numerical value, while assessment may sometimes involve scoring procedures but not all forms of assessment will provide students with scores and marks (Nitko, 1996). Assessment can be used in evaluation as one tool in addition to other instruments to assess the effectiveness of a specific programme, and to the level to which students have attained the educational objectives that teachers and education policy makers have set.

The last term that is important to explain here is evaluation. Evaluation is described generally as "the process of making value judgement about the worth of a student's product or performance" (Nitko, 1996, p.8). It means determining the value or advantage of an evaluation object in relation to some specific standards that have been set previously. This entails the process of comprehending the performance of many variables within a programme and the ways that these variables interact, together with any possible effects they may produce (McCoy & Hargie, 2001). Evidence yielded from evaluation methods could be based on quantitative data, such as test scores and/or on more qualitative information from observations or interviews. For this reason, evaluation is different from

tests, where scores are the main source of information. Worthen, Sanders and Fitzpatrick (1997) give a clear idea on the main concepts of evaluation:

> *evaluation uses inquiry and judgement methods, including (1) determining standards for judging quality and deciding whether those standards should be relative or absolute, (2) collecting relevant information, and (3) applying the standards to determine value, quality, utility, effectiveness, or significance. It leads to recommendations intended to optimise the evaluation object in relation to its intended purpose(s)* (p.5).

Another viewpoint describes the major purpose of evaluation as to collect information and data using one or more instruments to get some important feedback concerning a specific process for further consideration, for improvement in the future. Usually, at the end of the evaluation process, the evaluator makes conclusions regarding the programme being evaluated, which at the end leads to decisions (Hall & Hall, 2004). In this respect, Aspinwall, Simkins, Wilkinson, and McAuley (1992) indicate that:

> *evaluation is part of the decision-making process. It involves making judgement about the worth of an activity through systematically and openly collecting and analysing information about it and relating this to explicit objectives, criteria and values* (p.2).

Furthermore, evaluation can be done at any level or stage of the programme; it could be before the beginning of the programme, during its progress or at the end of it. The main aim during these three stages is to ensure that the programme is working well and achieves the desired objectives by effectively using the available resources, and if necessary to bring about improvement (Hall & Hall, 2004).

Evaluation during the progress of a programme is called formative, since it provides the stakeholders with effective information and feedback regarding the development of the programme in meeting the objectives and standards. Formative evaluation represents the way that a programme is modified through evaluators' direct feedback from the beginning of the programme until the end of the process (Hall & Hall, 2004). It helps to determine the

strengths and weaknesses that could appear during the process, which could aid in finding solutions or changing strategies to improve the plan and overcome any possible obstacles before the end of the programme.

In contrast, evaluation is identified as summative, when the target is to assess the effectiveness of a specific programme after it comes to an end, by reviewing its consequences and effectiveness. In this case, the evaluation results will be used to infer the major strengths and weaknesses of that plan. This helps in recognizing whether the objectives are achieved through the processes adopted, and the possible reasons for the final outcomes. The main disadvantage of this kind of evaluation, however, is that there is no opportunity after the fact to change the plan or modify it. Once the programme comes to an end, there is no chance to develop new approaches to address and solve any shortcomings. The evaluators have no role in summative evaluation, and the only function they might have is at the closing stages of the entire process (Hall & Hall, 2004).

In regard to the individual persons who will conduct the evaluation, they should have a specific plan that addresses the main objectives of the evaluation and the areas that will be evaluated, as well the clients who are going to benefit from this evaluation (Harris & Bell, 1994). Besides, they should have an idea about the different tools that could be used to evaluate the general educational outcomes, such as questionnaires and interviews.

3.5.   <u>**The Main Purposes of Assessments**</u>

There are many different types of assessment techniques that are implemented in the learning process to help in evaluating students' academic progress. Different types of assessment methods in the school settings could be applied for several purposes, according to the type of assessment to be used and the major function of it. Furthermore, each of these forms has its own unique rationale and structure to assess a specific aspect of students' learning. Some of these methods could be used before the beginning of the teaching process, and others could be used at the beginning of the instruction, during the learning process, or at the end of it.

Here, in this section specifically, the different purposes of assessment techniques and the educational decisions to be made will be discussed in more detail. Generally, tests and assessments can be used to make a number of decisions about different issues in education and psychology, in addition to other fields. However, since the main aim of this study is to discuss the assessment methods that are implemented in schools, the focus of this section will be just on assessment forms that are applied in schools. There are several decisions to be made from the use of assessment in schools, related to the education process: instructional decisions, grading decisions, diagnostic decisions, selection decisions, placement decisions, counselling and guidance decisions, administrative policy decisions (Kubiszyn & Borich, 1993).

Since the main scope of this chapter is to present the relevant information regarding assessment techniques that are used in schools to evaluate students' attainment, the information in this section will focus mainly on four types of decisions: instructional decisions, grading decisions, diagnostic decisions, and selection decisions.

3.5.1. Instructional Decisions

Assessments can be used in classrooms to guide teachers' in planning for the instructional process. During the teaching process, from the first day of school until the last day, teachers face many situations when they have to take some decisions about the appropriate instruction plan to suit their students' needs. Therefore, they make instructional decisions before they begin teaching, during their teaching, and after teaching a segment of curriculum materials (Nitko, 1996; Kubiszyn & Borich, 1993).

Teachers' decisions before the beginning of teaching could help them to decide the material they need to cover in the next lesson. In addition, it could assist them in planning the teaching methods to be used according to the curriculum material and planned activities. Moreover, taking into account learners' abilities when considering the plan could help teachers to plan appropriately for specific instructions that consider learners with different levels of performance (Nitko, 1996).

3.5.2. Grading Decisions

Tests can also be applied to aid in providing students with marks. Teachers usually use tests to assess students' comprehension of a particular content domain, after finishing teaching a specific unit or chapter. These grades could be given to students on quizzes and short tests where teachers want to make generalization about learners' current standing regarding their achievement level. These grades help in deciding the next instructional step, and/or could be used as part of the final grade at the end of the year. The grading time might be different from place to place, since some systems prefer to assess students every month, six weeks, or three months. Some educational systems design their grading decisions to be made after completing all materials and contents in the text books, which is

usually done before the end of the school year (Ministry of Education, 1996a,b; Taylor, 1999; Gearon, 2002).

There are several activities that teachers use to assign grades to students; these are tests and activities. Grades may be awarded to learners according to their performance in one exam or on several tests in addition to short tests and quizzes. Some assessment plans consider one or two summative tests as the only methods to assess students' academic attainment. However, other assessment arrangements may consider the application of continuous assessment through regular application of short tests and quizzes as the proper methods to evaluate students' performance progress (Nitko, 1996; Wiggins, 1998).

Another possible way other than tests that marks could be given to students is through classroom activities. There are many activities that are involved during the leaning process, among them, classroom and homework assignments, students' individual activities and group activities, students' portfolios, students' participation in oral questioning, students' performing of presentations, and students' self and peer assessments (Clarke, 2001).

3.5.3. Diagnostic Decisions

Another major function of assessment practices in schools is using them to diagnose students' strengths and weaknesses during their learning advancement. Usually, diagnostic decisions in education require some data to be analysed, and these kinds of data are provided through tests (Kubiszyn & Borich, 1993). The diagnosis of students' learning could be done in many ways, depending on the type of data and test being used to accomplish this objective. Furthermore, diagnostic decisions could be based on formal data from standardised tests that are designed by psychologists and/or educationists to be

67

applied in schools for such purposes. Those specialists analyse the diagnostic test data to determine students' strengths and weaknesses and provide schools and teachers with information regarding these elements.

The other source of diagnostic data that could help in investigating students' educational progress is teacher-made tests. In fact, the diagnostic data that comes from teachers' tests can help them to determine quickly learners' potentials needs. Consequently, teachers may plan, according to this data, to modify their current teaching method to apply a more effective one. Besides, the data from teacher-made tests could help in increasing students' performance by applying new instructional plans that involve new strategies to facilitate students' learning, to yield very positive results (Nitko, 1996; Kubiszyn & Borich, 1993).

3.5.4. Selection Decisions

In this kind of decision, test data is used, possibly with additional evidence, as an indicator of students' academic achievement level. The main aim of this procedure is to aid administrators in deciding the selection of individual students to be accepted or rejected for undergraduate or postgraduate degrees in colleges and universities. Providing those administrators and educationalists with more than one evidence could help to determine students' future attainment in relation to their previous scores on high-stakes tests (Nitko, 1996). Examples of these sorts of tests can be found in England with Standardised Assessment Tasks (SAT) and General Certificate GCSE tests and in the United States with the Scholastic Aptitude Tests (SAT) and the Graduate Record Examination (GRE).

3.6.   <u>Factors that Influence Teachers' Application of Assessments</u>

Teachers are one of the main elements in the learning process, since they have a major influence on students' academic achievement. Through their daily work in teaching, teachers strive to provide their students with important information through the curriculum contents in addition to knowledge from other sources. Furthermore, they try their best to implement different strategies and plans that may help in motivating learners to participate effectively in the learning process. Among the strategies teachers use for these purposes is the application of the different assessment procedures and methods, in addition to the effective instructional techniques. However, there are some factors that influence teachers' ability to apply these strategies in their classrooms for the benefit of the learners. Some of those factors are related to teachers' skill with the different assessment techniques, and other factors are related to the intensive use of external tests in schools. The following sections will introduce these factors to give a clear picture about the way they affect teachers' assessment practices.

3.6.1.   **Teachers' Skill with the Different Assessment Techniques**

There are many types of assessment strategies that are frequently used in different education systems. These strategies contain formal assessments as traditional test item forms and informal assessment forms, such as formative assessment, performance assessment, and portfolio assessment. Some of these assessments, such as formative assessment, include many additional techniques and strategies that can be used to aid learners. Therefore, teachers' understanding of the various types of assessment and their application in schools plays a major role in using different measures to assess students' abilities. Klein (1998) explained the importance of assessing teachers' competence and

understanding of basic skills through tests that are similar to employment tests, which

assess teachers' ability to start teaching. Further, other professionals suggested that:

> *teachers need to create better classroom tests as magnets for student attention, and we need to expand the concept of test to include the richer, more dynamic aspects of thinking* (Marzano et al., 1988, p.137).

Although some teachers comprehend the general concept of testing and how to conduct and

apply classroom assessment,

> *very few teachers are aware of the considerable variety of uses for assessment and the many approaches which have been developed to improve the quality and value of the process* (Black & Broadfoot, 1982, p.6).

Further, the same applies to high-stakes testing which is applied in schools; teachers need

to understand the main concepts of these achievement measures. Teachers should be able,

through their continuous experiences, to identify their strengths and weaknesses during

their instructional procedure and teaching development in addition to their ability to apply

assessments. Besides, they should have the required capabilities to identify the potential

advantages and disadvantages of external tests delivered by other individuals or institutions.

They should be competent to administer such tests and interpret them effectively for the

benefit of their learners (Satterly, 1981).

However, teachers alone cannot achieve these objectives without any external plans

to increase their teaching and assessment skills and abilities. Therefore, increasing teachers'

professional development and teaching effectiveness through continuous plans is the most

important aspect of any future reform in education and learning. Any intended professional

development plans for teachers should consider that teachers should have more

accountability regarding their learners' education. Involving teachers as stakeholders in the

education phases and as one of the important partners in school learning may help to

increase teachers' professionalism. This includes considering teachers' views whenever

planning for the curriculum content, providing them with free plans, including resources and tools that may help them in their instruction, and involving them in every aspect of school life related to their practice and students' achievement (Garet, et al., 2001).

3.6.2. External Testing

In addition to the importance of teachers' proficiency with the different types of assessment methods, many professionals (Black, 1998; Mullan, 1995; EPPI-Centre, 2002; Brady, 1997; Herbert, 1997; Filer, 1993) argue that there are other external factors that influence teachers' assessment practice and shift it from focusing mainly on improving learners' academic progress to the focus on passing external tests for accountability purposes.

A major criticism regarding the ongoing movement to implement additional external tests in schools is that they have been used for a long time as the only valid and reliable method to measure students' achievement. Black (1997) claims that it is easy to argue that test results should clearly present the strengths and weaknesses of students, but educational outcomes are more complex than this simple explanation. In addition, these tests have negatively affected schools' use of other informative assessments, such as performance assessment, since most of the school time is spent in applying national tests and no more resources are available for other forms of assessment (Lane, 2004).

Besides, the intensive use of tests and formal assessments in classrooms has resulted in increasing teachers' workloads and gradually moving toward formal rather than informal assessments (Brady, 1997). Increased application of standardised achievement tests in school has produced a decrease in using teachers' assessments to determine students' strengths and weaknesses. Another major point to consider here is that some standardised

tests, such as certification and exit exams, consist of items that assess a small segment of the whole curriculum content. They are designed to include a small range of test items that, according to test publishers, represent the most important instructional objectives that students should comprehend and, thus, should be tested on. For this reason, teachers themselves should have the chance to assess their learners on the other parts of the instructional objectives that the external tests did not include (Williams, 2001).

Teachers and schools, as the main bodies who are directly involved in students' learning, can better understand their learners' needs. Therefore, setting their curriculum content and designing their own instructional plans, in addition to assessment strategies that correspond to their students learning needs, is more appropriate than providing them with rigid plans designed generally, to be implemented in all schools. However, the main issue here is whether teachers and schools actually have the chance to be involved in designing such policies. The answer according to some studies is that this is not the case, since stakeholders who are responsible for designing policies will prefer to do so according to their own agenda, not that of schools or teachers (Bottery & Wright, 2000).

3.6.3. Class Size

The number of students in the class may have effects on teachers' ability to apply various teaching, learning, and assessment approaches. There are a few recent studies (Blatchford et al., 2001; Graue, et al., 2007) that recognise the importance of this element and its potential consequences on the learning process. For a particular class, with more students, the grouping system could include more groups and each group may contain a larger number of students within it depending on the class size. In such cases,

the size of the group may affect the type of interaction when the teacher or other adult works with the group, as well as the interactions between children (Blatchford, et al., 2001, p.287).

Therefore, if the number of students in the class is small, the size of the groups may be small, but when the class size is large, the groups within the class, as a consequence, will be large. When teachers divide the class from one whole structure into various groups, they should take account of many factors; their management of the class, students' concentration, the interaction between students within each group, the type of instruction and feedback that should be given to each group, and ways to manage such size and number of groups in a single class. With small groups, it is easier for teachers to provide help and feedback for each individual student than when there are large groups of students in one class. According to Blatchford, et al. (2001):

in small classes teachers have more flexibility to address or teach larger groups for particular occasions and purposes, while in a larger class they may be forced into a less flexible arrangement, with more and larger groups, which become the dominant unit for teaching and learning (p.299).

Other empirical studies (Graue, et al., 2007) showed that class size has an influence on the teaching and learning process. These findings confirm that small class size can result in more scope for teachers and learners to practise more effective interaction and to produce a better learning environment. From teachers' perspective, small classes can help them to account for every student by providing them with more individualized instruction, and give them more time for thinking and for participation in various activities, individually or through group and team work. In addition,

pairing a smaller group size with adequate space allows teachers to tailor activities that differentiate instruction, promote social problem solving, and allow for divergent modes of learning (Graue, et al., 2007, p.683).

All these results provide some evidence that reduction in the number of students within the classroom may have a positive influence on teachers and learners and the learning process in general. However, having said that a reduction in class size may be good does not indicate that this action alone will support students' academic achievement and will help teachers to be more effective. In fact, there are other factors that should be considered, in addition to class size, to produce a more powerful learning climate, such as improving the curriculum, instruction, and providing schools with enough resources (Wainer & Zwerling, 2006)

3.7. <u>Conclusion</u>

This chapter highlighted some important aspects of education that are related to students' achievement. Education policies and plans are intended to promote students' learning through the application of various instruction and assessment methods.

However, there are some factors within the school setting that are related to the school environment and students' personal characteristics that have a major influence on their progress toward the fulfilment of educational assessment goals and objectives. These various factors have different impacts, positive or negative, on students' achievement, which usually depends on the interaction between some/or all of them together with other important factors. However, the selection of these factors to be explained in this chapter does not imply that the other elements in education and psychology that may be related to students' achievement are not of the same worth and importance.

Assessment of educational outcomes was another subject explained here, since it has become a significant aspect of education process that is very important for stakeholders, such as professionals, educational researchers and policy makers. Yet, factors such as

teachers' skill with different assessment methods, class size and high-stakes tests could

negatively influence the learning process and, as a result, affect students' progress.

After noting all these issues, it is important to discuss further the major influences

that high-stakes testing has on schools and the learning process. The next chapter will

explore these influences.

Chapter 4

Assessment Effects on the Learning Process

4.1.   <u>Introduction</u>

The main aim of this chapter is to describe the effects of applying high-stakes tests in the school setting. Since there are very strong arguments about the validity of using this kind of tests in mainstream schools nowadays, it is, therefore, important to identify those opinions that stand against the widespread application of these tests in normal classrooms. Many studies have discussed the possible effects that high-stakes tests have on the learning process. Some of these studies (Barnes, 1989; Marchant & Paulson, 2005; McNess et al.. 2003) focused on high-stakes tests' influence on teachers' instruction and assessment practices in general. They explained the way that external tests have forced teachers to narrow the curriculum instruction and assessment practices to teach to these tests.

Other studies (Bassett et al., 1978; Sternberg, 1989; Cullingford, 1997; Brady, 1997; Black & Wiliam, 1998; Kaasbøll, 1998) have focused on supplementary effects of standardized achievement tests on assessing low-order thinking abilities and the greater attention being devoted to grades and marks. They explained how the shift has gone from providing these scores to identifying students' academic achievement and progress with no formative feedback to evaluating teachers' and schools' effectiveness. In addition, some of these studies indicated that high-stakes tests have a negative influence on students' motivation to learn, since they increase learners' anxiety and affect their self-esteem. This chapter will examine all those effects by reviewing research that showed those effects on students, teachers, and schools.

4.2. The Influence of High-stakes Testing on the Learning Process

Tests are the major sources that provide learners with grades that describe their current achievement level. It is important to describe the significance of providing some sort of practical indicators that reflect students' educational attainment in schools, such as grades and marks. These attainment indicators are very useful for teachers, since they need to motivate their students' learning through the use of these grades and marks to measure students' progress and understanding. It is important to determine these sorts of indicators in the educational system to help educators plan for further development and remedy plans to help their students to progress more positively and firmly during their learning. Besides, some kind of testing, such as end-of-year examination can help teachers to devote the rest of the year to teaching and learning, since it just take few weeks to prepare for these examinations (Brady, 1997).

High-stakes tests are valuable, because they provide other people who are related directly and indirectly to the learning process, such as parents and employers, with significant information about students' academic progress. Such indicators are usually designated as measures of accountability, since they reflect teachers' work to help their learners (Brady, 1997). Hall and Hall (2004) explained that accountability:

> *refers to the provision of information to decision-makers, who are usually external to the organization, such as government sponsors, funding bodies or private donors. Accountability is about whether there is clear evidence that the programme or policy has 'caused' any discernible effects or changes in outcomes (p.32).*

However, a great number of professionals and social science researchers (Cullingford, 1997; Lane, 2004; Barnes, 1989; Sutton, 1991; James, 2000) have a negative view of the extensive use of external testing as an essential tool to enhance high standards, improve instruction and improve students' attainment. Before proceeding in explaining the major

criticisms to high-stakes tests, it is important to explain two major points regarding such indicators of achievement. First of all, it is important to define the meaning of high-stakes tests, since most of the discussion is about these types of tests. High-stakes tests are those examinations that are high in stake for students' future success. They determine their achievement standing in order to make judgments about the next step they can take in their education or professional development. These types of tests are usually called high-stakes, because they:

> *carry serious consequences for students or educators. Examples of high stakes tests for students include those that identify special academic accomplishments, those used for decisions regarding grade retention, and those that determine high school graduation* (Marchant & Paulson, 2005 p.2).

The following section will introduce some effects from the application of high-stakes tests in schools. These tests could be implemented internally within the school assessment plan through standardized teacher-made tests or by external tests from other education institutions and organizations or both of them together. High-stakes tests have influences on several parts of the education system: on the cognitive abilities assessed, on the teaching process, on judging teachers' and schools' effectiveness, on driving and controlling the teaching and assessment practices, on providing more formative feedback, and on students' motivation to learn.

4.2.1. Assessing Lower-order Thinking Abilities

The arguments about high-stakes tests' capacity to assess higher-order thinking skills are widely discussed by more than one researcher. While some scholars (Lindvall & Nitko, 1975; Marzano et al., 1988) provide some suggestions to improve tests to assess high-level skills, other educationalists (Sternberg, 1989; Kaasbøll, 1998; Brady, 1997; Black & Wiliam, 1998) criticise external tests, since they measure only the lower level of the cognitive domain, which is concerned with aspects with such as remembering and revising, without giving more attention to some focal points like analysis, evaluation, and synthesis.

One of the most commonly applied test forms in high-stakes tests is multiple-choice items. Even though multiple-choice items are widely used to assess students' progress, some educationalists believe that tests based on multiple-choice items and other traditional forms can assess only the basic abilities, such as knowledge and comprehension. However, traditional tests-item forms, such as multiple-choice tests, can be very beneficial to assess higher-order thinking skills if they are paralleled correctly with instructional objectives concerning higher skills (Lindvall & Nitko, 1975).

Brady (1997) argued that there are limited benefits of using multiple-choice and short answer tests, since these kinds of tests assess recall of knowledge and facts, comprehension and possibly interpretation capability. Moreover, when it comes to students' capacity to demonstrate their ability to describe themselves and formulate information in a meaningful way, it is hard to use multiple-choice and short answer tests to assess these abilities. Besides, no achievement test, from teacher-made tests or high-stakes tests, is designed to include all possible questions that can assess each cognitive ability and represent all the curriculum tasks. In fact, these kinds of tests are built to include some

sample items that assess part of the whole population of knowledge and information studied in a specific curriculum domain. Therefore, they are considered as limiting the gain of knowledge and facts, since they assess only part of students' understanding (Cullingford, 1997).

In addition, Black and Wiliam (1998), in reviewing the literature on the subject of teachers' assessment practices in schools, found that teachers' assessments focus mostly on surface learning by focusing the attention on some basic cognitive domain abilities, such as knowledge and comprehension. Furthermore, most teachers do not revise the assessment items they employ, whether individually or with other teachers, and most of the concern is about grading, not the learning task. Furthermore, they noticed that multiple-choice items are one of the forms that are frequently used in schools' tests.

One major purpose of assessments in general is to provide tools that can help to determine if students have the skills and abilities to implement what has been taught in class in real situations in school or at work (Sternberg, 1989). As well, teachers spend their time and effort to encourage the application of social, intellectual and communication skills in the classroom and within the time limit of the classroom period. Nevertheless, some educationalists (Bassett et al., 1978) believe that high-stakes tests cannot be used to assess these abilities and the accomplishment of instructional objectives related to intellectual and communication skills, since they are designed in specific ways to measure basic skills.

For this reason, some scholars (Black, 2001) believe that students' performance on test situations and the marks they gain, whether low or high, represent students' ability to pass these tests and get those marks, and do not reflect practical application of those skills in real life situations. In fact, these marks do not indicate that students have demonstrated that they can apply the knowledge gained. To assess students' application of those abilities

on the ground, therefore, more evidence is needed. Students need to be put in specific circumstances where they can demonstrate such ability by practical involvement in real life situations that show their capability to complete a task successfully (Black, 2001).

However, to assess higher-level cognitive abilities like synthesis and evaluation, it is possible to implement informal strategies, which could include essay questions and classroom observation (Lindvall & Nitko, 1975). Marzano et al. (1988) explain that teaching higher-order thinking abilities, such as critical and creative thinking skills, requires test publishers to design new test formats. These new tests can introduce and apply these fundamentals in a manner different from the multiple-choice tests that offer just one possible correct answer and assess typical cognitive abilities, which is not the case for testing higher-order thinking skills. Yet, Sternberg (1989) believes that it is not appropriate to measure synthetic abilities with standardised tests, even though they can be used to assess analytic abilities. Besides, these tests cannot determine students' capacity to apply those abilities in school, or even when they start work in a specific job.

4.2.2. Effect on Teaching Process

On the one hand, it is obvious that teachers are the people best placed to understand the learning behaviour of the learners. They spend hours instructing the learners about the curriculum context and the instructional targets to be met. They provide them with effective tools to comprehend their instruction and participate effectively in classroom activities. On the other hand, teachers' work in the classroom is considerably affected by the extensive use of external tests that have been designed by others, rather than the same teacher in classroom professional practice (Barnes, 1989). The time that schools spend in testing

situations of students is time that has been taken away from teaching and learning (Cullingford, 1997).

Marchant & Paulson (2005) have arrived at similar conclusions, but with more focus on the other effects that high-stakes tests have on the teachers' use of instruction methods. Some studies have focused on the validity of external tests and their appropriateness to be used in schools and for different ages. They discussed the validity issue that arise s from the extensive application of high-stakes tests and they claimed that such tests are not designed to assess the instructional objectives of schools and their curriculum. In addition, they confirmed that:

> *the use of norm-referenced tests to assess mastery has been challenged. Schools narrowing curriculum and teachers teaching-to-the-test and using inappropriate test preparation approaches have been identified* (Marchant & Paulson, 2005, p.3).

Furthermore, since external tests have been used to judge teachers' performance within a school and to compare between schools regarding students' results on national examinations (Filer, 1993), most teachers believe that they should alter their teaching methods to prepare for these kinds of tests. The findings of the previous studies showed that teachers' teaching style has been altered by the new interest in high-stakes testing (McNess et al., 2003).

Assessing high-order thinking skills requires more practical and pragmatic assessments that evaluate abilities beyond memorization of facts. Practical problem solving skills are essential to increase students' cognitive abilities, prepare them for their future and help them to deal with more complex situations:

> *because students are assumed to obtain a more profound understanding of the subject area, assessment of problem based learning should focus more on the students' skills in handling an ill structured situation than on recalling the text-book* (Kaasbøll, 1998, p.104).

However, high-stakes testing may discourage this process, because traditional tests encourage teachers to focus their teaching methods on applying tools that help students to remember facts and general information, in order to get better results. Hence, it is argued that schools' educational practices have been modified negatively through the effort and time consumed by the recent increased focus on testing (Sutton, 1991). In addition, Filer (1993) indicates that the involvement of high-stakes testing in schools' learning environment has created significant differences between what teachers believe it is important to teach and what these tests force them, in some way, to teach. Most teachers feel obliged to modify their teaching methods to prepare for these kinds of tests. However, students' learning and their academic achievement may be affected by these new policies.

One important example reflecting this vital thought is an action research (Mullan, 1995) that was conducted by a high school teacher to study the effects on achievement of employing different teaching methods for students with mixed abilities. The teacher explained how the testing pressure and the fulfilment of subject content for the high-stakes examination influenced her plans to apply the traditional teaching methods that centred on memorizing knowledge and facts and providing answers to students to save time. Her major concerns were trying to cover all topics in a specific time limit and have all students get better scores.

After that, the teacher employed a new teaching method that focused on critical thinking and analytical abilities to help her students to understand the subject better. She found that the new method and the better use of multi-resources helped her students. Further, even though the new teaching method required the learners' application of higher-order thinking strategies, most students indicated that the new method was more interesting and they preferred it to the old traditional form. Furthermore, the teacher indicated that the

learners felt more comfortable with the new teaching method, since it included dynamic practices where students identified solutions for problems by themselves, not the teacher (Mullan, 1995).

Another study (Marshall, 2007) was conducted on 40 primary and secondary schools and around 1,300 teachers to investigate the proper ways to make students more independent in their learning by means of assessment for learning practices. There were three variables that teachers believed have major influence on students' learning, namely making learning explicit, promoting learner autonomy and performance orientation. The findings showed that:

> *in two out of the three factors there was a marked gap between what teachers claimed to value in terms of learning and what they actually saw practiced. Around 80 per cent of teachers placed high value on those activities they felt would promote learning autonomy but did not practice them. Conversely, the same percentage valued little about the performance-oriented culture in which they worked but perceived it as dominating what they did.* (Marshall, 2007, p.31)

4.2.3. Judging Teachers' and Schools' Effectiveness

Another significant effect that high-stakes tests have on the teaching process is related to their increasing use of them for accountability purposes. Some schools have been rewarded with extra financial bonuses for their students' high scores on standardised tests, while other low performing schools were considered for closure or less resources (Williams, 2001). The current belief is that there is a common tendency to evaluate teachers and schools according to their results on high-stakes tests, and schools are compared to each other according to these results (Filer, 1993). James (2000) notes that external tests are currently judged as high-stakes, since there has been a shift in their intentions from just assessing students' final product in all subjects to assessing teachers, schools, and local education authorities. The declared purpose of testing might be for students' benefit, but the

evidence shows that those tests are implemented to assess schools and teachers. Some research findings (Greenfield, 2005) showed that some parents even tend to support the idea that teachers' salaries should be given according to their students' scores on tests and their achievement performance. A professional study that was conducted by the University of Canada with more than 4000 teachers and parents across Canada showed that eight parents out of ten favoured rewarding teachers and staff according to their students' scores on tests. However, other professionals believe it is not fair to connect teachers' salary to students' academic performance, since there are other factors out of teachers' and schools' control that influence students' ability to gain the desired performance and attainments, such as students' socio-economic status (Greenfield, 2005).

A similar conception about assessing programme accountability was addressed by another researcher. Lane (2004) believed that the testing process has forced the consumption of tests to validate accountability programmes, rather than assessing the important aspects of students' creative thinking. In fact, assessment techniques could be more appropriate to ensure that tests and assessments in themselves are not harmful instruments to use in schools to assess students' progress. Furthermore, the problem that may arise from the inappropriate application of these educational devices is the different uses of their results for specific accountability purposes rather than to support students' learning (Brady, 1997). It is difficult to use these tests to evaluate students' real ability as well as to compare between the schools according to their students' grades. There are other factors that can contribute to students' success rather than their actual achievement and ability, such as:

> *their catchment areas, their staff turnover rates, the facilities and infra-structure available to them, their truancy rates, the commitment of their staff, and their policy in deciding who should be presented for given external examinations* (Black & Broadfoot, 1982, p.104).

Besides, teachers' ability to accomplish all those objectives may be limited to other factors that influence their practices and minimize their freedom. These factors include external pressure from the society and other stakeholders to fulfil specific objectives that may not reflect teachers' concerns and instruction objectives (Black & Broadfoot, 1982).

4.2.4. Effect on Curriculum and Teaching Methods

Another dilemma that arise s from the enormous emphasis on testing is the influence of these tests on the curriculum domain to be taught and the appropriate assessment methods to be used within a specific curriculum. It is important that the curriculum content should drive the assessment methods to be used, not vice versa. Focusing on high-stakes test items results in narrowing the curriculum content to be taught to the learners, since the major aim is to give students the ability to pass these tests, not to comprehend the curriculum content.

Many researchers (Brady, 1997; McNess et al., 2003; Satterly, 1981) believed that the implementation of new testing plans that focus on high-stakes tests has resulted in teaching specific curriculum content that could match items that will appear on tests. While the anticipated aim of assessment usage is to serve the curriculum application in schools by finding what has and/or has not been achieved in schools, the unwanted outcome of assessment practice is to drive and shape curriculum planning. Some writers (Brady, 1997) illustrate clear examples of testing influence on the curriculum through the introduction of the National Curriculum programme in schools.

Brady (1997) noted the importance of carefully deciding the way in which assessments will be used in schools. Therefore, whenever it is planned to implement a new educational curriculum, there should be clear and enough information about the curriculum principles and structure. Furthermore, clarifying distinctly the curriculum structure may help in identifying the appropriate assessment form to be used, since a specific curriculum domain may need a different assessment form (Brady, 1997). An important example he signified is the introduction of a new curriculum through the introduction of GCSE exams in England and related assessments.

Moreover, he indicated that the other hidden targets set through the employing of this new curriculum were to assess students' and teachers' performance in addition to the new curriculum implementation (Brady, 1997). This practice may also make teachers teach to the tests or instruct students to centre their attention on particular information and facts. When an end-of-year examination system is used for summative assessment:

> *there may well be 'question spotting', resulting in incomplete coverage of the curriculum; this problem is compounded by giving candidates a choice of question as is the case in many written examinations* (Brady, 1997, p.15).

As a result, the general outcomes that come from measuring students' achievement may not be correctly analysed and interpreted in the right way to give valid and reliable feedback to all stakeholders in the educational system, from the students and teachers through to school administrators and policy makers. Teaching in the direction of specific standards and objectives that match external tests and do not reflect students' academic and social skills and the school curriculum will result in deficiencies in learning that might affect students' success. Assuming that the teacher has done all he or she can to teach more effectively towards an objective, there are good grounds in psychological theory for arguing that unrelieved exposure to failure will be deleterious for all students:

assessment, then, potentially equips teachers to define and teach for objectives which are suitably poised for the abilities and aptitudes of the students in question (Satterly, 1981, p.6-7).

Other writers (McNess et al., 2003) argue that using standardized tests and setting complex standards has affected the education practice of teachers in many countries. Furthermore, they explained from the findings of the PACE project regarding the impact of education policy on classroom teachers and students' experiences that:

the pressure from national testing and the influence of target-setting for both individuals and schools had also impacted on the work of English primary teachers during the 1990s to create a classroom environment which was increasingly externally defined (McNess et al., 2003, p. 251).

4.2.5. Providing Less Formative Feedback

An additional criticism of the general use of external tests on students' achievement is that these tests are narrowing the general and important picture of the essential exercise of assessments as just tests to apply in classrooms to assign grades after the end of the course or at the end of the school year. External tests have been characterized, for a number of educationalists and communities, as the only method to differentiate between students' achievement and label them inappropriately as 'bright' or 'low-achievers'. The major focus and concern in such cases and in this old practice is about students' grades, not what they have learned to apply in their real lives. In addition, among the depressing consequences that grades may cause to learners is that identifying learners as poor or best could harm them, which may be reflected in their future performance (Brady, 1997).

Mostly, assigning grades to students represents the least important feedback that any student can get through this evaluation procedure. Despite the fact that students may realize from these grades that they have not met the specific criteria to get a higher mark, students do not have any idea how they could avoid this low achievement and how they

could improve their academic performance. In fact, the more those students encounter more advanced and sophisticated concepts, the higher the likelihood that those grades will be meaningless for students in the future (Rowntree, 1977).

Additionally, some teachers and students view some assessments as the end point of the teaching and learning, since they usually represent the grades and results of students' achievement in the middle of the educational process and/or at the end of this process (Harris & Bell, 1994). Furthermore, another study (EPPI-Centre, 2002) reported the negative effects of the intensive use of tests in schools on teachers' ability to provide the learners with the desired feedback regarding their strengths and weaknesses. The researchers found from the project that teachers who are forced to deal with high-stakes testing and summative assessment have less opportunity to give informal feedback. Since teachers spend their effort in evaluating students' progress towards specific criteria, such as formal tests, they do not have sufficient time to spend with their students to give them formative comments individually.

4.2.6. Effect on Students' Motivation to Learn

Another important effect that is also related to high-stakes tests and has a major influence on students' achievement is anxiety. Anxiety is an additional significant factor that has large effects on individual lives and it is responsible, in addition to other causes, for the success or failure of individuals. In educational settings, no one can argue the effects of anxiety on students' learning and performance during knowledge obtaining and classroom testing conditions. Many educational and psychological studies (EPPI-Centre, 2002; McNess et al., 2003; Black & Broadfoot, 1982; Child, 1986; Cullingford, 1997) have shown the importance of considering the possible effects of high-stakes tests on students'

motivation to learn. Test anxiety and students' self-esteem are among the effects that such tests can have on students' learning performance. The difficulty in this respect is the ability to measure the amount of effects that anxiety has on high and low anxious students, and to what extent this affects their achievement during testing situations. Further, it is hard to tell whether students' accomplishment on a specific test, high or low achievement, is a fundamental effect of their academic performance in learning and teaching progression or whether test anxiety has played a role in this manifest performance (McKeachle, 1977).

There is an important review (EPPI-Centre, 2002) that has been conducted to examine systematically research evidence of the impact of summative assessment and testing on students' motivation for learning. In this review, the research group found that there was a high level of anxiety among students, particularly girls, who do not prefer summative assessment to test their academic performance. In addition, the study showed that most of the learners preferred to be evaluated with other assessment forms other than those tests, since they are usually accompanied by less stress.

One of the arguments concerning the negative effects of external testing is that these tests put pressure on students that may affect their responses. A reaction to this opinion is that if students are really encountering pressure and stress while preparing to take the external tests, this is because their teachers, who are also facing similar tension and pressure of the future consequences of the results, are communicating all these feelings to their students inside the classroom (James, 2000). Some teachers believe that some less-proficient students view tests as a kind of punishment process, rather than a means of evaluation to promote learning (McNess et al., 2003). In addition, "knowledge of failure, particularly if it is frequent, can be equally devastating" (Child, 1986, p.45). Therefore, in such situations it will be difficult to eliminate students' worries about tests. In addition to

all these findings, the researchers found during their reviews of other studies on the effects

of summative assessments that introducing national tests in England has negatively affected

the self-esteem of low achieving students (McNess et al., 2003). Besides, tests:

> *may place an indelible stamp of intellectual status-superior, mediocre or inferior-on a child, and thus predetermine his social status as an adult, and possibly also do irreparable harm to his self-esteem and his educational motivation* (Black & Broadfoot, 1982, p.44).

But these negative effects could differ from one student to another, depending on the time

and situation (Harris & Bell, 1994). Cullingford (1997) indicated that after the assessment

application, the only students who will be motivated are those who did well in the

assessment. However, students who did not perform well in the assessment will soon be de-

motivated.

Applying tests in classroom settings could play an effective role in promoting

students' learning, since tests can be operated as stimulus and rewards through the

employment of some of elements, such as praise and grades (Child, 1986). Besides, setting

specific dates to assess students through tests gives them the advantage of setting goals and

targets to prepare and organize their studying through the management of their time and

curriculum syllabus practise themselves until the test date. "Without such points of

reference, learning can be aimless or even a process of ferreting around to discern just what

it is a teacher expects" (Satterly, 1981, p.8).

4.3. __Toward More Beneficial Assessments__

Generally, assessments are activities that are used to collect evidence of learning in a systematic way. From the late 1970s until recent days, many educational assessment specialists (Gipps, 1994) and educational researchers have argued that there should be a further shift to new type of assessment that support student-centred learning. Since "educational assessment includes all the processes and products which describe the nature and extent of children's learning" (Satterly, 1981, p.3), the major role of assessments in students' learning process is to support their learning through the multiple uses of different assessment instruments, such as observation, positive communication, formal and informal assessments.

Further, the traditional tests that have been used in schools are not the only instruments that can be reliably used to measure students' accomplishments. In fact, their validity and reliability have been doubted. For example, some researchers (Richards, 1989) argued that there are some factors such as nature and nurture that have effects on students' general development and it is unclear to what extents these factors affect test scores. Another pragmatic and efficient use of classroom assessments is to observe students during teaching periods and classroom activities to see whether they have mastered what they have taught. After that, direct and focused feedback on certain elements in the curriculum can be given to students who may still have some difficulties in comprehending various parts of the lesson.

Some researchers believe that educational studies that have examined teachers' effectiveness in classroom teaching practice demonstrate that using assessment for concentrating more on students during classroom period to help them overcome learning difficulties and attain more is an essential phase of any total quality teaching exercise (Hall

& Burke, 2003). Furthermore, one essential question that may be introduced by educators and assessors is to what extent the numerous uses of testing and examination in schools and students' familiarity with such systems have helped them to comprehend the advantages underlying the testing procedure, and "is the quality of their learning better?" (Weeden et al., 2002, p.4).

Most schools, nowadays, apply different kinds of testing methods, which include formative and summative assessment, in the classroom setting. According to Mouly (1968), teachers can assess their students' capacities, limitations, and other abilities through the use of some simple and basic instruments, simultaneously or alone, such as observations, interviews, and conversations. Since teachers spend more than six hours a day with their students through the whole year, they can easily assess their students' personality and social skills without any need for educational and psychological tests and measurements.

Therefore, the current argument regarding assessment evolution is the need to employ a different new assessment technique that takes in account the previous aspects, which could be applied through the positive classroom interaction between teachers and students in addition to the traditional summative assessments. James (2000, p.357) notes that: "If assessment is to contribute positively to lifelong learning, it will need to support learning how to learn and to develop new modes to capture 'deep' learning (knowledge of concepts, principles and processes that can be applied in creative ways in novel contexts) rather than 'surface' learning (of factual information and procedures that may only be memorized for tests)".

4.4.   Assessment for the Benefit of Students' Learning

Since most educationists were not pleased with the shift in assessment policies toward more application of high-stake testing and systematic assessments in schools, these policies encouraged educational and psychological researchers to investigate different assessment proposals in order to raise standards in schools (Herman et al., 1992; Gipps, 1994). Key researchers (Gipps, 1994) suggest a positive move from the psychometric tests toward more assessment for learning, which applies non traditional techniques and formative methods to assess students' attainment. This type of assessment, Gipps (1994, p.158) believes, "is a shift in practice from psychometrics to educational assessment, from a testing culture to an assessment culture…our underlying conception of learning, of evaluation and of what counts as achievement are now radically different from those which underpin psychometrics".

Researchers such as Herman et al., (1992), Gipps & Murphy (1994), Gipps (1994), Torrance & Pryor (1998), Black (2001), Weeden et al. (2002), Hull & Burke (2003), and Clarke (2005a, 2005b) support this move toward alternative assessment that supports teachers' assessment as well as understanding students' models of learning. In addition, it is important to understand the process by which students respond to assessment tasks, where they may be asked to apply their knowledge and understanding to a new situation that is similar to a previous task that they have already attained in classroom. Further, these responses may provide a solid ground that may help professionals involved with assessment construction, such as teachers and educationists, to design appropriate assessments that fulfil these major needs.

In addition, the new direction in assessment and learning methods may aid in employing more effective strategies that help learners to develop new thinking and practical skills, including managing their own learning by setting targets and plans to be accomplished. The main reason for developing these skills, however, is that they are going to be active participants in their societies and this new position needs to be supported with "the creativity to generate new solutions to problems and to have the self-reliance, the resilience, to fall back on their own resources in an increasingly fragmented world" (Weeden et al., 2002, p.9).

Therefore, Gipps (1994) indicate clearly that to apply tests that assess learners' basic skills and ability to recall facts and information is no longer in the interest of educationists. In fact, "the majority of the population, not just the elite, needs to become flexible thinkers, reasoners and intelligent novices, and to believe that they can do so. A pervasive and narrow formal testing and examining system in a high-stakes setting will not allow this to happen" (Gipps, 1994, p.161). On the other hand, she does not suggest the total abandonment of traditional standardized tests and examinations, but argues the need to design more effective assessment plans that in the long run may have positive effects on teachers and learners, in addition to the teaching and learning process (Gipps, 1994).

These new alternatives could include a variety of methods that teachers and students can benefit from, such as performance testing, authentic assessment, portfolio assessment, process testing, exhibits, or demonstrations. The application of these new, varied, alternative assessments could benefit disadvantaged learners, since they may perform better on some forms than to others (Gipps, 1994). According to Herman et al. (1992), any proposed new alternative assessments should in general "ask students to perform, create, produce, or do something; tap higher-level thinking and problem-solving skills; use tasks

that represent meaningful instructional activities; invoke real-world applications; using human judgment; require new instructional and assessment roles for teachers" (p.6).

4.4.1 Teachers' Role in Understanding Students' Thinking Skills

It is academically desirable to develop new assessment techniques that help develop students' acquisition of more advanced cognitive skills through their participation in classroom activities. However, "in order to encourage the teaching and development of higher order skills, thinking processes and problem solving we must use assessment which directly reflects these processes" (Gipps, 1994, p.30). Many researchers (Gipps, 1994; Black & Wiliam, 1998; Black, 2001; Hall & Burke, 2003; Clarke, 2005a) indicate that it is important to investigate students' ways of thinking in order to understand the patterns and trends of their responses to tests and assessments. Usually learners develop their model of thinking and understanding through the teaching and learning environment. This includes "learners' construction or interpretation of the whole learning scenario and does not merely refer to the physical features of the setting or the task including an assessment task. Learners make sense of situations for themselves and each learner will make their own 'sense" (Hall & Burke, 2003, p.5).

This means that teachers should attempt to comprehend their students' current level of ability, knowledge, skills and ways of thinking up to this point, since this may aid in access to students' style of thinking and understanding (Gipps, 1994; Harlen, 2000). However, teachers cannot reach those targets without properly mastering all aspects of their subjects. Besides, "teachers have to understand the construct which they are assessing (and therefore what sort of tasks to set); they have to know how to get at the student's knowledge and understanding (and therefore what sort of questions to ask); and how to

elicit the student's best performance (which depends on the physical, social and intellectual context in which the assessment takes place)" (Gipps, 1994, p.124).

In addition to those major elements that teachers should comprehend in order to evaluate their learners' educational progress appropriately, it is important to observe the learning strategies students use in daily classroom activities to demonstrate their thinking abilities in their group work activity involvement. These learning stabilities include deep and surface learning. Knowing what tactics learners employ in their knowledge formulation process may help in deciding the appropriate practices to employ in each tactic.

Some research findings indicate that an individual learner could use both tactics, depend on the type of task they are encountering. Therefore, the same student may be a surface processor learner in one condition and a deep processor learner in another situation. The surface processing strategy could happen in situations that include "a heavy workload; relatively high class contact hours; an excessive amount of course material; a lack of opportunity to pursue subjects in depth; a lack of choice over subjects, and a lack of choice over the methods of study; a threatening and anxiety-provoking assessment system" (Hartley, 1998, p.51). The deep processing strategy is more likely in conditions that give learners practical involvement in the learning process, such as

> *project work, learning by doing, using problem-based learning; setting assignments that cannot be completed by memory work alone; using group assignments; encouraging students reflection; allowing for independent learning; providing authentic tasks; rewarding understanding and penalizing reproduction; involving students in the choice of assessment methods* (Hartley, 1998, p.51).

All these instructional practices and information could provide educators with the proper educational analysis instruments that will help them to design more appropriate and successful instruction and assessment procedures. Additionally, some students may not yet have developed good skills to analyse educational tasks or they may have difficulty in identifying the appropriate skill or technique to be used in applying their responses to a particular task. Others could experience difficulties in their current models of thinking to respond to classroom activities. Therefore, it is teachers' responsibilities to understand their learners' current thinking models and to help them, whenever it is required, to develop new patterns of thinking each time they find that an individual student lacks any specific thinking and problem solving skills (Clarke, 2005a).

4.4.2   Evolving Multi-teaching and Assessment Methods

As well, and according to Black (2001), the desired new movement toward more constructive assessments would help teachers to recognize practically how students construct their cognitive understanding of specific knowledge and formulate their thinking regarding those aspects in different models. If teachers can comprehend each element of students' model of learning, they can then restructure these models during the learning process, by providing feedback and immediate comments to expand students' ability to build a different model of learning. This new model may help students to redirect their thinking on specific situations, to apply more positive reasoning and higher-order thinking skills. Besides, Black (2001) explains that:

> *a further indicator of a learner's capacity is evidence of meta-cognition; a*
> *person with strong meta-cognition will have a clear overview of the goals of*
> *a task, will judge well when to abandon a line of attack on a problem when*
> *it is not working and try to attack it in a different way, will go back and*

check earlier steps when stuck with a task and can review his or her own
writing in order to discern where it might not be clear to others (pp. 78-79).

In addition to these major steps in assessment, Black (2001) indicates that it is essential to understand students' ways of responding to tasks that involve complex skills through their involvement in classroom activities and/or through their responses to a traditional given test that requires the basic levels of understanding , such as recall of knowledge and facts. The information gathered from those previous tasks may only be valuable and worthwhile when educators use them to analyse students' current needs and future progress according to students' specific model of learning. Otherwise, they might function as a scores and marks that are unhelpful for formative purposes, and could rarely add anything to instructors' current and future plans and to students' educational needs. According to Black (2001):

since both the integrative and generative aspects of a learner's cognitive
powers work out differently between different learners (e.g. according to
whether they adopt intuitive or analytical approaches to any task), the
inference from the data to a model of the learner cannot be simple or direct.
Ideally, assessment should be based on multiple complex tasks, with several
aspects of the learner's response analysed by methods which allow for the
inherent uncertainty in proceeding from data to a model (p.78).

As a result, it is essential to understand the whole learning and thinking process that a student develops during his/her educational progress in order to reach the situations where he/she realizes the major point behind particular tasks and activities. However, to fulfil these requirements, teachers should evolve specific teaching tactics to assess students' thinking strategies through understanding what students currently know and what kind of thinking methods they have applied to finally reach specific conclusions (Clarke, 2005a). Besides, it is imperative according to Gipps (1994, p124) "to take a child's initial ideas seriously so as to ensure that any change or development of these ideas and the supporting evidence for them makes sense and, in this way, become "owned" by the child".

Another main target of educational assessment is to prepare learners to play an active function in their societies and to be responsible for their new positions through the application of their knowledge and thinking skills they have gained, to help others in the construction of their societies. Therefore, a major aim of educational assessments and tests in schools is to assess whether students have gained the required practical skills and capabilities that they need to apply in the future and aid them to understand the needs of the labour market. Further explanations about the significance of such skills in real world application are offered by Black (2001). He clarifies that it is imperative for any community to be supplied with people who have the major skills and abilities to share practically and effectively with others. Therefore, there should be some sort of assessment that helps to determine and measure these abilities.

However, these capabilities can only be measured effectively by recording individuals' participation in their societies. Besides, applying this kind of assessment in practice will only be effective if the results of such measures represent a valid prediction of future ability. According to Black (2001),

> *this argument would have force even if the social nature of cognition were to be overlooked, but it acquires more fundamental significance if this social dimension is given prominence, for the social perspective then involves far more than the mere addition of some social skills to the skills of learning as an individual, because interactive functioning is now seen as an essential locus of the learning itself* (p.80).

To conclude, the new movement in educational assessment development plans is to design another assessment technique rather than the current traditional testing programme that focus only on a single score on a specific test. The traditional testing method concentrates on the number of test items that a learner gets correct, and as a result his/her final score on that test. However, the major aims of educational assessments should be to provide understanding of students' meta-cognition abilities, and to build data about students'

educational achievement through the use of multi methods that provide intensive information about students' academic attainment (Gipps, 1994).

The new assessment form should promote the use of various assessment strategies and forms to provide learners with more educative feedback and informative information. Besides, this new form of assessment should encourage students' involvement in assessment process by giving them the chance to assess themselves and their peers. This kind of assessment is called formative assessment or assessment for learning, which will be the focus of the next chapter.

4.5.   Conclusion

The foregoing review showed that high-stakes tests are controversial. Many educators have expressed negative thoughts about the use of these kinds of tests as a tool to measure the education process outcomes. Their main comments about assessments are that they have been used for a long time as the only methods to measure students' attainment to obtain grades and marks. Moreover, a criticism of the general use of educational assessments in measuring students' achievement is that educators are narrowing the general and important picture of the essential exercise of assessments as just tests to apply in classrooms to give grades after the end of the course or at the end of the school year.

In addition, these researchers think that the major focus in this old practice is on students' grades, not what they have learned to apply in their real lives. Further, these kinds of tests measure only one part of the curriculum, that is, the lower level of the cognitive domain and neglecting significant skills like analysis, evaluation, and synthesis. Even though those effects are the most visible ones that many educationalists have indicated in addition to some other effects, some professionals, especially those who are responsible for

setting assessment policy plans that recommend high-stakes tests to be applied in schools and those who are engaged in the implementation process of external testing in schools, try to assert positive views regarding the application of external tests. The reason for this is to respond to others who oppose those kinds of tests.

The discussion notes the key interest of researchers in the educational assessment area, to design a more powerful assessment that recognizes the students' model of thinking and learning. In addition, it highlights possible ways to understand learners' meta-cognition skills, other strategies they need to develop throughout the learning process, and the importance of these new strategies in helping students effectively contribute in classroom activities and acquire skills that could support them in their study. Educators also have a significant role to play in their students' thinking abilities and skills improvement.

The main features of the new movement in educational assessment development plans is to design another assessment technique rather than the current traditional testing programme that focuses only on a single score on a specific test. The traditional testing method concentrates on the number of test items that a learner gets correct, and as a result his/her final score on that test. However, the major aims of educational assessments should be to provide understanding of students' meta-cognition abilities, and to build data about students' educational achievement through the use of multi methods that provide intensive information about students' academic attainment.

The new assessment form should promote the use of various assessment strategies and forms to provide learners with more informative feedback. Besides, this new form of assessment should encourage students' involvement in the assessment process by giving them the chance to assess themselves and their peers. This kind of assessment is called formative assessment or assessment for learning. The next chapter will introduce the main

features of this type of assessment procedure. It will provide information about the usefulness of this method to provide teachers and learners with important information related to the teaching effectiveness and students' strengths and weaknesses in addition to other possible benefits for the teaching and learning process.

Chapter 5

Formative Assessment

5.1. <u>Introduction</u>

The research on which this chapter is based is to introduce the main concepts of the formative assessment approach as an alternative effective tool in schools. The new criterion of the effectiveness of assessments and tests in education settings is that they should operate as assessment for learning rather than just assessment of learning. This notion indicates a move away from the traditional test practice of evaluating students' educational outcomes by means of a single score in a specific test, to more formative assessment that provides positive feedback information to learners. From this perspective, the new assessment approach may practically aid both teachers and learners to plan for more improvement in their teaching and learning strategies, in addition to assisting them to recognize their past and current strengths and weaknesses and possible solutions for present and future enrichment.

The chapter begins with a focus on explaining the key aspects of formative assessment as an alternative method that may help students to benefit more from the assessment process. It will introduce current research perspectives and views on this technique and its possible advantages that could help to improve students' progress during their learning.

Next, the following section then describes the major features of the formative assessments that a number of key writers introduced in their writings and research studies. It describes the key interest of researchers in the educational assessment area to design a

more powerful assessment that involves recognising the student's way of thinking and learning. In addition, it concentrates on possible ways to understand the meta-cognition skills that learners have already established and the other strategies they should develop throughout the learning process. Besides, this part will clarify the importance of these new strategies to help students effectively contribute in classroom activities and acquire the proficiencies that could support them in their study.

However, educators also have a significant role to play in students' thinking abilities and skills improvement and this important role will be illustrated in the same section, in addition to describing the appropriate ways to profit from all these elements to build a more effective classroom assessment. Research on the main concepts of formative assessment and their appropriate application in schools is then explored. In so doing, the definition of formative assessment will be explained.

This is followed by exploring the most significant techniques of formative assessment, with information about the basic features of each individual technique and effective means to apply them in classroom settings. These major techniques involve two groups of participants: teachers, whose practical role consists of diagnostic assessment, teacher-student interaction, teachers' expectations, collaborative assessment, teachers' feedback, and positive questioning in the classroom; and learners themselves, whose involvement in formative assessment practices includes setting assessment standards and criteria with learners, self-assessment and peer assessment. Each of those techniques will be explained in some detail to examine their importance, effectiveness and appropriate ways to apply them in classroom settings to help students increase their achievement level and learning ability. Teachers' understanding of formative assessment elements and its positive impact on teaching and learning will be considered, in addition to the important aspects that

teachers should comprehend in order to apply the different formative assessment techniques correctly and effectively. Finally, the benefits of teacher training on different assessment methods will be explored, to determine the importance of teaching training in increasing educators' assessment capabilities.

5.2. <u>Assessment for Learning</u>

For all those reasons that have been discussed previously in the last two chapters, it has been noted that in recent decades there has been a shift in research focus away from traditional tests, to exploring a more beneficial technique that may provide formative assistance to students. Such studies have concentrated on using teachers' assessments to promote students' effective learning by analysing the interaction between assessments and learning and the importance of using an alternative assessment technique that helps students to recognize their potential strengths and weaknesses (Black & Wiliam, 1998).

Some researchers (Wragg, 2001) identify these new alternative assessments as informal assessment while most recent researchers (Gipps, 1994; Black & Wiliam, 1998; Hall & Burke, 2003) in the educational assessment development area describe the two notions of formative assessment and assessment for learning. They serve the current interest to find different assessment methods based on different concepts and tools, in addition to traditional testing methods and summative assessments. This type of assessment encourages informal feedback from teachers to their students on a regular basis and directly at the time of teaching and assessment, so the teacher immediately alters the teaching method and feedback content according to students' needs (Hollandsworth, 2001). Harlen (2000) indicates that:

> *children have a role in assessment for this purpose since it is, after all, the children who do the learning. No one else can really change their ideas or*

develop their skills. Thus the more they are involved in knowing what they should be trying to do, the more likely it is that their motivation and effort are enlisted in advancing their learning (p.112).

The application of a formative assessment approach may facilitate raising standards in education if all groups who are concerned about improving assessment practices in schools give it a chance to be introduced in their assessment plans. Also, it is important for educators themselves to be given the opportunity and power to plan and use different methods in their classrooms. If given this autonomy, they could design more efficient instructional methods and assessment techniques that fit their students' needs, rather than confining their teaching and assessment practices to more formal means that assess basic skills and thinking abilities. Black (2001) also explains that:

standards can only really be raised by improvement in the classroom work of teachers, for which they are responsible. Other approaches to raising standards, notably setting targets or testing more frequently, impose pressures for which teachers are not responsible (p.76).

5.3.   The Definition of Formative Assessment

Black and Wiliam (1998) explained that formative assessment can be defined as a method that represents all classroom activities that are performed in classroom settings by either educators and/or their students and employ both of them in the process. It includes some informal techniques that teachers commonly use, such as questioning learners and observing them through their participation in activities and judging their educational performance in either structured or unstructured ways. In addition, it involves the continuity of these assessment processes in different phases of the lesson and in a systematic manner. This kind of approach helps teachers to construct a valid picture of their students' performance and learning abilities. Besides, it provides formative information which they can feed back into their teaching and learning process by planning for some specific

individual or group instruction. This may include some decisions about whether they should re-explain some particular tasks and do some more work on an existing part, or move to a new task in the curriculum (Gipps et al., 2000).

Some researchers (Hall & Burke, 2003) divide formative assessment into two types: planned formative assessment and interactive formative assessment. Planned formative assessment can be used in the classroom settings to give teachers informative information about their students' current performance. This type of assessment can be categorized as semi-formal, since it employs formal assessments, such as tests to produce formative feedback that could improve students' learning. It may be used at the beginning of teaching of a specific segment of instruction and after delivering the whole content. After that, both teachers and learners clarify the information collected, to use it for further consideration in accordance with other aspects such as the topic being studied, students' past accomplishment, and the approaches that both educators and students will use to plan for further learning.

Interactive formative assessment, in contrast, takes place during classroom interaction between teachers and their students and it is hard to predict the kind of learning experiences that could be applied in this assessment. Teachers' involvement in the process comprises gathering information about students' thinking and performing abilities through observing students' individual and group activities, recognizing the significance of these educational behaviours as well as giving immediate response. The essential aspect in this assessment is that:

> *the teacher responds or acts in relation to what is deemed to be worth noticing at the time and the teacher's response is immediate, unlike in the case of planned formative assessment where there is a longer time gap in responding* (Hall & Burke, 2003, p.15).

Many researchers (Black & Wiliam, 1998; Gipps et al., 2000; Clarke, 2005a; Clarke, 2005b) studied the main features of teachers' classroom assessment practices that support a formative approach and employ students' involvement in the process as another key factor to improve the quality of their assessments. Through their analyses and syntheses of teachers' practices, they arrived at conclusions about the main aspects of effective classroom assessment that represent the notion of assessment for learning or, in other words, formative assessment. These major aspects include diagnostic assessment; setting standards and learning goals with learners; teachers' and students' feedback; effective classroom questioning; self-and peer assessments.

5.4.   The Main Elements of Formative Assessment

To begin with, like any other type of assessment, formative assessment consists of some important key elements that any school and teacher should take into account when applying this kind of assessment. Many researchers (Gipps, 1994; Black, 1998; Black & Wiliams, 1998; Torrance & Pryor, 1998; Clarke, 1998; Weeden, Winter, & Broadfoot, 2002; Clarke, 2001; Clarke, 2003; Black et al. 2003; Clarke, 2005a; Clarke, 2005b) who focused on assessment practice in schools, explain the key aspects of the formative assessment technique. They pointed out practically the ways in which school administrators and teachers could direct their efforts to apply formative assessment in meaningful ways.

These researchers' writings introduced the main formative assessment elements that some schools might apply nowadays, although not exactly in the same manner as the researchers presented in their books and articles, such as feedback from teacher to students and from student to teacher and from student to student. The subsequent pages will introduce in more detail the main elements of the formative assessment techniques, in order

to clarify their main features as described in the research, as well as possible ways to apply them in practice. Subsequent sections will illustrate techniques that educators may use to involve learners practically in the learning and assessment processes.

5.4.1. Diagnostic Assessment

Teachers are the major element in classroom assessment practices, due to their direct interactions with learners, which gives their assessment of learners' progress particular validity. Teachers' formative assessment practices may take many forms, one of which is diagnostic assessment (Harlen, 2000). Since one major purpose of assessment in teaching and learning practice is to discover what students have and have not achieved, and their strengths and weaknesses in regard to different subjects, diagnostic assessment is one of the most appropriate methods that fits these needs (Gipps & Murphy, 1994).

Some studies (Stiggins & Conklin, 1992) of classroom assessment practices show that teachers rarely use their classroom assessment methods to help them understand their students' learning difficulties and just a few teachers use these assessments to evaluate their classroom instruction. Stiggins and Conklin found that even though the schools in the United States apply many standardized tests to measure students' achievement, teachers felt that the extensive use of standardized tests in their classes did not help them to diagnose their students' weaknesses to guide them to better planning for future instruction.

However, before going on to describe the major features of diagnostic assessment and the different possible ways in which both teachers and learners could benefit from its application, it is important here to define the differences between the practical functions of the terms, formative and diagnostic. Some researchers (Blenkin & Kelly, 1992) distinguish between the formative and diagnostic functions of assessment in that:

formative assessment is essentially concerned to identify what a student can do, while diagnostic assessment focuses on what he/she cannot do (p.8).

One of the main features of this kind of assessment, as assessment for learning, is to diagnose students' learning to give them the support they need through analysing their strengths and weaknesses and identifying difficulties, to assist them to learn. According to Stephens & Crawley (1994), in any teaching and learning plans, teachers need to know the current position of their students' performance and learners' expectations from their teachers and the sort of practical activities they are used to. Diagnostic assessment helps teachers to achieve those aims through the analysis of students' existing capability and skills in specific subjects, to help teachers take further instructional decisions regarding supplementary procedures for future accomplishment and to decide the appropriate approaches they should apply to modify their teaching and assessment methods in accordance with students' current needs (Gipps, 1994). In addition, the major aspect of this method is that teachers achieve the diagnostic goals through conversation between them and their students, to identify the main subject areas where the latter are struggling (Harris & Bell, 1994).

It is important to acknowledge here that the use of assessments for a diagnostic purpose in a formative approach that applies informal ways, such as observations and questioning, differs from other standardized diagnostic instruments (Blanchard, 2002) that are applied by specialists, which are designed to diagnose specific weakness in students' learning (Harris & Bell, 1994). In the latter tests, teachers and students are inactive participants in the diagnostic process. They do not contribute dynamically, as major factors in the teaching and learning process, through their active and continuous participation in the operation. In fact, teachers just receive the results from specialists regarding students' present ability status, according to their responses to the diagnostic instrument, without any

further formative information regarding any possible alteration to educators' teaching method(s) and further classroom assessment procedures.

As a result, some people have taken a negative view of teachers' role in this process, arguing that diagnostic assessment is not part of teachers' work, and there are other people, mostly psychologists and specialists, whose role is to perform such tests. However, this is a misunderstanding of the possible use of diagnostic assessment as an important feature of formative assessment. In fact, teachers themselves can introduce this approach in their assessment plan and carry out this technique in the classroom setting if they have:

> *good understanding of the detail of the subject and skills which the children are to learn and when they have training in observation and questioning* (Gipps, 1994, p.125).

It is essential that teachers should have the opportunity to be trained in such techniques, since this training may help them to apply this beneficial method in their classes and to obtain important information concerning students' current skills and understanding. In fact, diagnostic assessment is considered by some educationalists as one of the different elements in the formative assessment approach has, and because any teaching and learning method usually includes formative assessment application, it is important to consider offering teachers training in such forms (Gipps, 1994). The training could start at the university level when teachers start their undergraduate and postgraduate degrees in education. Additionally, training may be provided as part of in-service training on formative assessment approach specifically, or on classroom assessment procedures in general.

5.4.2. Teacher-student Interaction

The traditional role of teachers in classroom settings as the providers of knowledge and experiences and learners' role as passive recipients of these elements affects the relationship between these two important parties in the learning process. Through this past practice, students usually view their teachers as the persons who have total power and control over the whole processes and this position makes them less equal partners (Pole, 1993). According to some writers (Weeden et al., 2002), many psychological studies have proven that factors that are related to emotion in learning such as self-esteem and motivation can play very significant role to enhance learners' achievement. However:

> *by separating emotion from logic and reason in the classroom we have simplified school management and evaluation but we have also then separated two sides of one coin and lost something important in the process* (Weeden et al., 2002, p.15).

Therefore, it is teachers' responsibility to do their best to change learners' beliefs by building a mature positive rapport between them and their students, since they are engaged with learners in classroom activities (Carnell & Lodge, 2002). This may help to construct confidence bridges between them, which as a result supports starting the interaction process with an encouraging message between both parties; teachers and students, and students and their peers, which accelerates the teaching and learning process in a constructive way (Gipps et al., 2000). Besides, building a strong relationship between educators and their learners and between learners and their peers, through positive interaction, helps to build trust between them, and:

> *all participants can gain meaning and develop as a result of the learning interaction, in other words that teachers also learn while students are learning* (Gipps et al., 2000, p.9).

This facilitates teachers' ability to put into practice several assessment techniques that rely on this positive relationship, such as feedback (Sadler, 1998), as will be discussed in a later section. In fact, teachers themselves can benefit from any positive interaction between them and their students since the latter:

> *are directly affected by the teacher's personality, teaching techniques, skills, and knowledge, and they can provide teachers with essential information about these attributes that they may be unaware of* (Smith, 1996, p.34).

Black (2001) gives clear and meaningful ideas about the ways that students can benefit from a better interaction between them and their teachers to help them to undertake their responsibilities in their current and possible future learning:

> *with better interaction in the classroom teachers will be in closer touch with their students' progress in understanding, students will become more active and responsible as they become involved in expressing their thinking to their teachers and to their peers, and students will be drawn into taking responsibility for their learning through self and peer assessment. All this should lead to enriched learning now and to students who are better equipped to learn in the future (p.76).*

Instructive communications inside the classroom may take several forms that demand the application of different techniques. As Harris and Bell (1994) explain, concerning students' involvement in their teachers' assessment,

> *much communication between teachers and learners should take place through the medium of assessment and evaluation. The assessment and evaluation can be formal procedures or informal procedures such as conversations* (p.134).

The foremost aim of this practice is to help to assess students' academic progress regarding specific topics in the curriculum and the final outcomes targeted for students to achieve. In addition, classroom assessments must involve negotiations between groups of students and between students and their teachers concerning topics that are related to the assessment procedure itself, such as discussing the assessment objectives and the appropriate criteria to be used to evaluate students (Harris & Bell, 1994).

114

Some research findings (Pole 1993) show that continuous negotiation between teachers and learners was the fundamental technique that teachers used to analyse their students' learning needs, including strengths and weaknesses in past performance, as well as the possible approaches that learners can implement to make some improvement. It may embody also educational tasks that need group work to ensure that each person has the opportunity to participate in the process.

In addition, some professionals suggest that these discussions can be used in situations throughout classroom activities that require teachers' and/or peers' assessment, such as:

> *informal questioning during learning/teaching, groups of learners working together on a project or syndicate work, specific feedback from the teacher (or peers) about an assessed piece of work* (Harris & Bell, 1994, p.108).

However, it is important to point out here that, usually, when teachers assess their students' educational attainments they use some other strategies like:

> *attitude, effort, personal progress. Most teachers do not always specify these components with an allotted weight, but they are usually a subjective part of the teacher's assessment of the learner* (Smith, 1996, p.33).

5.4.3. Teachers' Expectations

Another imperative element that has a vital influence on students' achievement and may play a significant role within teacher-student interaction is teachers' expectation of students' outcomes. Numerous reviews (Gipps & Murphy, 1994; Muijs & Reynolds, 2001) of educational and psychological research demonstrate that teachers' expectations of learners' future performance is another element that may affect, positively or negatively, students' responses to academic situations and change the way they react to academic tasks and the learning process. Indeed, some educationists believe that the teacher's expectation of his or her student's potential attainment may be regarded as one of the most important

aspects that influence both schools' and teachers' teaching and learning effectiveness (Muijs & Reynolds, 2001).

It has been argued (Muijs & Reynolds, 2001) that some teachers have a tendency to develop expectations of their learners' academic achievement even before they have any idea or indications about their students' actual or previous intellectual accomplishment. There are several ways that teachers may practice this kind of negative expectation in classroom settings. Muijs & Reynolds (2001) indicate that bias may be displayed by:

> *paying closer attention to high expectancy students and spending more time with them, by failing to give feedback to responses from low expectancy students, by criticizing low expectancy students more often and praising them less often, by not waiting as long for the answer of low expectancy students, by calling on them less to answer questions, by asking them only lower-order questions, giving them more seatwork and low-level academic tasks, and by leaving them out of some learning activities* (p.64).

To summarize, the significance of teachers' expectation in students' learning progression, is that there is:

> *a relationship between teacher expectation and the curriculum offered the child, and this is in turn had an effect on the child's progress* (Gipps & Murphy, 1994, p.4).

Muijs & Reynolds (2001) suggest a number of approaches that teachers could apply in classrooms to make certain of the appropriateness of their teaching and learning exercises; these could include believing in all students' ability to learn and also delivering this important message to their students, to increase their self-confidence and self-esteem. Finally, it is essential to note here that:

> *expectancy effects can manifest themselves through allowing students of whom the teacher has low expectations to behave worse and be off task and disengaged from the lesson more often than high expectancy students, as well as through giving them more punishments and fewer rewards than high expectancy students (Muijs & Reynolds, 2001, p.65)*

5.4.4. Teachers' Feedback

Teachers' feedback to learners is another significant aspect that is widely explained as a major element in formative assessment and has been regarded by researchers and professionals as a powerful tool to enhance teaching and learning in schools (Herman, Aschbacher, & Winters, 1992; Gipps, 1994; Harris & Bell, 1994; Black, 1998; Black & Wiliam, 1998; Sadler, 1998; Askew, 2000; Gipps et al., 2000; Clarke, 1998; Clarke, 2001; Clarke, 2003; Clarke 2005a; Clarke, 2005b; Wragg, 2001; Black et al., 2003). Many stakeholders inside the education system benefit from the feedback process to modify their way of work and performance, since this technique helps to identify performance strengths and weaknesses, and positive and negative effects that may be associated with previous performance. This in turn helps in planning future strategies to cope with these effects and to modify current actions for more successful outcomes. However, if this technique is to make significant changes in educators' traditional practice, it should be constructed in their teaching strategies and not used as an extra, non-active method (Black, 1998).

The feedback function can embody several areas in education and assist different individuals who have responsibilities toward education, such as administrators, teachers, parents and students (Herman et al., 1992). Since the main focus of this section is to provide more specific information regarding teachers' feedback to their students and its constructive and practical function toward students' learning, the next paragraphs will explore feedback processes and aspects in relation to classroom setting involving teachers and students. Initially, it is not an exaggeration to say that feedback from teachers to students may be the main element in the formative process inside the classroom. It represents teachers' direct and immediate responses concerning students' answers in assessments that teachers provide on a regular basis (Wragg, 2001). In addition, teachers'

feedback may be considered as an influential approach to increase students' motivation toward learning and academic achievement (Harris & Bell, 1994), and:

> *it contributes directly to progress in learning through the process of formative assessment, and indirectly through its effect on students' academic self-esteem* (Gipps, 1994, p.130).

The positive interaction between educators and learners through direct feedback can help teachers to acquire insight into students' errors and so take action to promote more efficient teaching and learning (Wragg, 2001). Given the benefits that teachers and students may desire from the application of feedback in the classroom, educationists should focus on the immediate implementation of this technique in schools. The question is not whether schools should employ this strategy in their assessment plans, but how it can be applied in the context of the whole curriculum and the time available (Sadler, 1998).

In addition to those fundamentals that are related to teachers' recommended plans, Gipps (1994) and Sadler (1998) confirm that it is important to consider learners' understanding of teachers' assessment criteria, by which they can evaluate their work. This can be achieved by giving them appropriate information and comments that will help them to decide the further steps they should take to improve their learning and to tackle their weaknesses. Indeed, this effective practice will ensure students' participation in the assessment process and keep them as active and important contributors in classroom assessment practice.

Gipps (1994) believes that students should have a clear idea about the educational targets that they should achieve throughout the learning process, so they can judge their current capability against the final desired target, and find out what strategies they should develop to narrow the space between their actual capacity and that required by targets (Gipps, 1994). This necessitates teachers' continuous feedback to assist learners to reach

these standards and goals by applying different strategies. However, in situations where teachers do not have specific assessment criteria and/or cannot develop one that helps students to compare their performance,

> *then the use of descriptive statements and exemplars is a useful way to set about providing guidelines for students* (Gipps, 1994, p.128).

For students to develop new strategies to support their present and future performance and to benefit from teachers' feedback, they should be taught by teachers or professionals the major skills they need to build those abilities. As Sadler (1998) argues,

> *students also should be trained in how to interpret feedback, how to make connections between the feedback and the characteristics of the work they produce, and how they can improve their work in the future* (p.78).

The logic behind these recommendations is that giving learners direct feedback after exacting tasks does not mean that they know how to benefit from this information to improve their future performance. Therefore, it is essential, if the whole process is to be successful, to assist learners with strategic plans to immediately apply teachers' feedback and alter their thinking approaches in the light of those instructional comments.

In accordance with the definition given by Gipps et al. (2000) of the different types of feedback, assessment feedback can be categorized into two main aspects, evaluative feedback and descriptive feedback. The essential aim of evaluative feedback is to sustain students' motivation and self esteem, whereas the main target of descriptive feedback is to make:

> *specific reference to achievement or competence in relation to the task at hand or more general goals. The descriptive feedback often allows formative assessment and offers students the information needed to 'close the gap' between actual performance and desired performance. It is thus a crucial element of any teaching repertoire* (Gipps et al., 2000, p.7).

There are many approaches that educators can use to give feedback information to their students, depending on students' characteristics and their learning difficulties. For situations where students are asked to write several paragraphs about a particular topic, there are many possible methods that can be used to provide a positive feedback to them. Harris and Bell (1994) suggest a variety of techniques that teachers can use including:

> *comprehensive 'notes in the margin' or at the end of an assignment, verbal (or non-verbal) feedback during discussion in class, and computer marked multiple-choice items* (p.108).

One of these methods, which Harris and Bell explained in brief, is a purposely-designed form to assess the quality of students' writing and provide formative information to students as a guide for future assignments in writing. These forms should specify the main elements that are important in any written assignments, such as structure, argument, sources, style, presentation, and mechanics. Wragg (2001) makes the following suggestions about teachers' recommended actions regarding their learners' possible errors:

> *if students are to learn from their assessment, then correction of errors and discussion of what they have done is essential. Questions to be faced over marking include: whether to correct errors or make students think about them for themselves; what kind of signs or comments to write on work, and whether to indicate these at the appropriate place in the student's book or at the end; what to do with children who make numerous errors or appear generally bewildered by the task; how to follow up the assessment to encourage children to learn from their mistakes and build on what they know, rather than get demoralized (p.74).*

The main advantage of this is to let all students benefit from the assessor's comments to each individual student, to help all of them avoid committing similar errors again in future assignments. Moreover, this process represents the core of the assessment for learning approach, since:

> *much learning is by learners working on assignments on their own or in groups rather than in more formal classes taken by the teacher* (Harris & Bell, 1994, p.109).

In addition to those previous aspects, teachers can benefit from their earlier notes on students' attainment to give them feed forward that helps to gain insight into future needs. The feed forward method works when teachers use students' records of achievement, and any comments these contain on their weaknesses and areas where they need immediate consideration for more explanation and detail, to meet learners' performance needs. In addition, it aids educators to expand their ability to predict students' educational needs, which help them, as a result, to arrange for future remedy plans that fit learners' models of learning through the adjustment of teaching methods and instructional focus and assessment techniques. However, to give this approach the chance to succeed in classroom settings, teachers should consider the importance of giving more continuous feedback. The significance of this factor, according to Harris and Bell (1994), is that "the feed forward needs to be associated with a continuous feedback as well to enable continuous adaptations to be made" (p.135).

5.4.5. Positive Questioning

Positive questioning is an additional formative assessment element that may be used in classroom settings, that can help teachers to gain insight into students' understanding of the curriculum material and to what extent they have mastered the major objectives that have been set by them and their teachers. Teachers usually use questions in class to evaluate students' thinking and understanding, and they may:

> *ask on average one, or even two, questions per minute, which means several hundred in a day and tens of thousands over a school year* (Wragg, 2001, p.32).

As a consequence, some researchers (Gipps, 1994; Wragg, 2001; Black et al., 2003) have explained the importance of using this tool properly to identify students' understanding of specific issues in the curriculum and the way they come to their conclusions. Gipps (1994) defines the questioning procedure as:

> *a key device for understanding a child's interpretation and conceptualization of an issue and also taking that conceptualization or questioning further* (p.128),

Teachers themselves view classroom questioning as a major element in their teaching and learning practice (Black et al., 2003). However, there are some problems associated with teachers' questioning method, which may arise during teaching and assessment practices. One of these problems, noted in studies about this topic, is that mostly teachers use this technique in a way that is not supportive for learners, for example,

> *to establish the teachers' control of the classroom and to sequence the lesson. Thus questioning can be seen to have a social function as much as (or more than) an intellectual function* (Gipps, 1994, p.128).

Moreover, some teachers use their closed questions in a way that directs students to specific answers, since they believe that this method could help them to ensure that they have control over curriculum and time spent in classroom discussions, which as a result may enable them to cover all the material within the time limit. As a result, this approach may not serve a more open-ended function where learners can explain in more detail their way of thinking and the model(s) they apply to perform specific tasks (Gipps, 1994).

Another major problem that may occur during the application of questioning in schools is the amount of 'wait-time' that should be given to learners to answer a specific question. Usually, teachers allow one to two seconds for an individual learner to answer a specific question before they proceed to forward the same question to another student or even answer the question themselves (Clarke, 2001). This practice may have some

disadvantages that affect learners' responses to a particular question, even though it saves teachers' time allowing them to ask many other questions or carry on teaching a different task. Since a two-second time frame is not enough for some learners to think about the task, some of them avoid participating in this process, because they might believe that a following answer or question will soon be delivered. As well, they could suppose that other responses from their peers will be presented quickly, therefore there is no need for them to make a contribution, which could result in making mistakes in front of their peers (Clarke, 2001). As a result, teachers may inappropriately evaluate those students' learning progress according to their passive participation in classroom questioning activities, without giving them the same opportunity to contribute in this valuable process (Wragg, 2001).

Therefore, it is important to discover appropriate questioning practices to help solve those problems, and lead to deep understanding of learners' thinking skills and knowledge acquisition, rather than assessing their surface knowledge and skills and ability to remember facts and figures. Some projects that involved the practical application of the formative assessment technique in some schools exercised the questioning method in classrooms as a powerful part of the process. Some of these projects (Clarke, 2001; Black et al., 2003) yielded significant results regarding the influences of these new practices on learners' thinking progress. Teachers' suggestions in these projects showed the need to consider the quality of questions rather than quantity, and to allow enough time for all students to think before they respond to a particular question.

The project by Black et al. (2003) in Oxfordshire and Medway, found that classroom questioning plays an important role in providing formative information regarding students' educational improvement. Through the implementation of different questioning procedures, the aim was to avoid the old practice of focusing on rapid answers

123

that embody surface learning and thinking abilities and asking simple closed questions that recall general information and employ memorizing facts and figures. Through researchers' discussions with participant teachers about the effectiveness of their new approaches in classroom questioning, they found that there are some essential factors that should be taken into account to promote a more powerful questioning in classroom settings. Teachers need to develop new strategies that support learners' provision of rich information that displays their real understanding of a specific task and support all students' contribution in the classroom questioning process. This may involve spending more time and attempting to develop better open questions to be asked in lessons that encourage students to apply more complex thinking strategies. This will give teachers a better understanding of students' model of learning and conceptual understanding, than using closed questions, which examine simple ideas and recall practice and limit learners' involvement to those who have superior abilities and can respond quickly.

According to some researchers (Clarke, 2001; Black et al., 2003), using open questions in classroom discussions offers all students the chance to explain their ideas and develop cognitive capacities around a specific task. This sort of question helps educators to evaluate learners' higher-level skills and to discover different strategies learners apply to formulate their responses. In the Oxfordshire and Medway project (Black et al., 2003), the new teachers' practices were designed to help them introduce the curriculum topics in a well managed manner and to involve more learners in discussions through the employment of problem-solving tasks and asking open-ended questions that could allow more space for students' negotiations around those tasks. In addition, to make this process more useful for students,

both the responses that the task might evoke and ways of following up these responses have to be anticipated (Black et al., 2003, p.35).

During teachers' progression in the project, they found that this new approach of questioning helped them to clearly and correctly evaluate the learners' answers to determine whether or not they understood the logic behind a specific task or question. Besides, it assisted them to determine the learners' instructional needs and the next step they should take to help learners satisfy their needs. Therefore,

> *time has to be given to pursue students' ideas and rectify shortfalls. This involves creating or finding follow-up activities that are rich, in that they provide opportunities to ensure that meaningful interventions that extend the students' understanding can take place* (Black et al., 2003, p.41-42).

In fact, teachers should consider giving learners wait-time of between four to five seconds before they proceed to answer the question, to ensure that all students will have the same opportunity to participate in classroom questioning activities. This questioning could help to encourage all learners in this process, in addition to giving them a sufficient time to understand the nature of the question, especially in higher-level questions, to think about the appropriate responses, and to formulate their final answers (Clarke, 2001).

Another possible approach that some researchers suggest is that teachers can divide the classroom into groups or pairs. After that, they ask a question to the whole class and give them approximately 30 seconds to respond to that question and after that learners should answer the question with their partners or groups (Clarke, 2005a). This latter procedure has another potential advantage since it helps learners to benefit from each other. Through the observation of their peers' thinking process, they may develop new tactics and ideas to obtain correct answers. It encourages all students to work collectively as groups, to consider all the responses and to take part in the whole process. As well, it gives every student the chance to participate in the discussion by commenting on others' answers,

developing their ideas, and gradually reaching the final conclusions, rather than remembering what may jump suddenly into their minds (Black et al., 2003). Overall, through peer discussions and group activities, each peer and group will be responsible for their answers and

> *mistakes can be shared and rectified and answers reached collectively and collaboratively* (Black et al., 2003, p.39).

The main logic behind this approach, according to Clarke (2005a) is that:

> *having 'talking partners' as a regular feature of lessons allows all children to think, to articulate and therefore to extend their learning. Shy, less confident children have a voice, and over confident children have to learn to listen to others, so the benefits extend to a more respectful, cooperative ethos and culture* (p.55).

Another important project (Clarke, 2001) involving researchers working with some schools to implement formative assessment in their assessment plans found that there are many possible tactics that can be used in classroom questioning application to determine students' thinking and understanding and to encourage them to participate in classroom discussions. These include promoting the application of high-level skills, supporting learners to explain their own thinking, suggestions, and perspectives, teachers using non-verbal invitations and simplifying the main points. However, Clarke believes that there are two significant factors that should be considered by teachers whenever they plan to use effective questioning in their teaching and assessment methods. These two factors are

> *questioning to elicit understanding during or after activities, and the use of 'starting point' questions offered to children as the essence of an activity* (Clarke, 2001, p.88).

Clarke explains in more detail the questioning techniques and activities to be used in and teachers' responsibilities to ensure the effectiveness of these activities in every subject. However, since the intention in this chapter is to introduce the general elements of the

formative assessment approach, it is not possible to explain every questioning technique and how it can be implemented in every subject.

5.4.6. Students' Involvement in Assessment Practices

The introduction of this new positive vision about the involvement of both teachers and students in the assessment and learning processes replaces the old practice and supports teachers' positive role in the classroom as facilitator rather than the judger of students' achievement and the provider of grades (Gipps, 1994). Thus, the interaction between teachers and their learners is another central target in the application of formative assessment schemes. Learners, as key actors in the education system and the most important beneficiary of this whole complicated process, should be encouraged to take a dynamic part in the assessment process. Since the assessment plans are designed to find out what learners already know and how they arrived at this knowledge, in addition to planning for students' improvement, they should have the opportunity to participate actively in the assessment process, to prepare them for teachers' feedback regarding their next steps in learning and the things they need to do to improve themselves (Harris & Bell, 1994; Gipps, 1994; Radnor & Shaw, 1995; Carnell & Lodge, 2002). According to Cooper and McIntyre (1996),

> *it is perhaps surprising, therefore, that relatively little attention has been given, at least until recently, to how students engage in classroom learning, or to the thinking and ideas that inform this engagement* (p.19).

Black (2001) notes how important it is to employ a different assessment technique, in addition to traditional tests, to evaluate some complicated educational activities that take part in classrooms through the interaction between all participants. He remarks that:

> *the future envisaged is that traditional formal testing must at least be supplemented by assessment in the context of work on complex tasks and*

work in which interaction with others is integral and can be analysed in terms of a social theory of learning (p.80).

In addition, Black (2001) indicates the significance of this movement when he refers to:

classroom innovations aimed at implementing constructivist principles, in giving students more responsibility for their own learning and in developing learning through group work (p.80).

Another perspective (Hall & Burke, 2003) considers the importance of preparing the learners to take this imperative progress in the direction of these new responsibilities by consciously mastering what they have learnt. To reach this conclusion, learners

need the chance to question it, elaborate it and apply it in purposeful context, especially everyday life situations (p.6).

Previous proposals on the subject of teacher-only involvement in the assessment process have faced many remarks from assessment researchers and developers who believe that learners' engagement in their teachers' assessment is essential. Many researchers (Gipps, 1994; Harris & Bell, 1994; Gipps et al., 2000; Black, 2001; Cooper & McIntyre, 1996) signify the positive impacts of this practice in helping both teachers and learners to achieve their final objectives, and to shift the traditional passive model of teaching and learning activity toward a more dynamic relationship. This involves changing teachers' and learners' positions in the classroom environment from teachers as the delivers of knowledge and information, and students as the passive recipients, to a more active model as co-researchers.

In addition, some researchers (Harris & Bell, 1994) consider the collaboration between educators and their students as more acceptable than other methods, such as self and peer assessments. The collaborative procedure engages more positive and dynamic participation of both teachers and students in the whole process of learning. It may encompass the assessment criteria, methods and any grading, besides:

negotiation and agreeing all aspects of learning leading to a particular assessment, to negotiating final marks on a more traditionally teacher set assessment (Harris & Bell, 1994, p.111).

5.4.6.1. Setting Assessment Standards and Criteria with Learners

For a long time and through the traditional teaching practices, the teachers' job was to provide learners with instruction and knowledge in one-way interaction that makes students more passive in their learning, with teachers having total control of this process. The new model, however, assimilates educators as the transformers of knowledge, while learners' participation in this process will take the form of:

> *actively making sense of new knowledge, making meaning from it, and mapping it in to their existing knowledge maps or schema in their brains* (Gipps et al., 2000, p.8).

Some researchers believe that educators' future status in the learning process will be changed since they should "act as a mediator between, on one hand, a body of knowledge and skills to be learned, and on the other hand, the learner" (Sadler, 1998, p.78) and teachers' function as the only contributor to the teaching and learning:

> *will become more redundant. The teacher as composer, conductor and critic relating to the learner becoming more involved in creating and loving aspects* ((Harris & Bell, 1994, p.135).

As a result, over time learners will gain the ability to be accountable for their learning, while teachers will have a new role as facilitators rather than the transmitters of knowledge. In addition, the teacher's position will be as a reflector who provides:

> *meaningful and appropriate guidance and extension to the cognitive structuring and skill development arising from the child's initial experience* (Gipps, 1994, p.131).

Therefore, some researchers (Smith, 1996) believe that if there is a real intention to address new effective assessment techniques to be used efficiently in schools, teachers should comprehend and consider the importance of some major factors that may positively or

negatively affect teaching and learning, such as learners' individual differences, learners' understanding of themselves and students' involvement in taking responsibility for their own learning.

There are many important factors that influence learners' participation in learning activities and their educational achievement. These include their personal beliefs about the dependency of their final results on their own effort and abilities, and their meta-cognition strategies (Cooper & McIntyre, 1996). Therefore, it is important to consider learners' participation in their own learning and assessment activities to encourage their positive engagements. Students' participation within the assessment process may take several possible forms, starting with understanding the main goals and objectives behind a specific assessment. It also could include teacher-student communication during and/or after assessment feedback regarding their academic capabilities and their strengths and weaknesses.

In addition, this may include some other forms of participation, such as learners' inquiries about possible answers to a specific assessment, or their right to ask for general or specific explanations of teachers' judgments about their achievement. Actually, some researchers (Harris & Bell, 1994) have gone beyond this proposition, to recommend that students could even be engaged in "the design and judgment of assessing" (p.94). Teachers should plan to spend some significant time to enhance learners' ability to establish such thinking and skill processes by supporting students' contribution in classroom activities that involve the practical application of such capabilities. Besides, there are some classroom activities that need to be implemented in any teaching and learning plans, to help learners practically construct those meta-cognition abilities.

One good practice is for teachers to demonstrate the idea of meta-cognition by expressing aloud in the classroom the thinking strategies that they are applying to accomplish a specific assignment. Furthermore, there are many activities that can be conducted in classroom teaching and learning processes, such as:

activating the learner's prior knowledge through discussions; determining next characteristics; determining a purpose; generating questions; predicting and verifying predictions; looking for important ideas; recognizing when a comprehension breakdown occurs; trying to understand how the learner is functioning, trying to get at underlying misconception (Hall & Burke, 2003, p.12).

There are several important aspects in teachers' planning for assessment development that students can be involved in. Herman et al. (1992) give an example of the major processes that should be followed whenever teachers are preparing to develop new assessments and tests. Among these important steps are:

specify the nature of the skills and accomplishments students are to develop; Specify illustrative tasks that would require students to demonstrate these skills and accomplishments; Specify the criteria and standards for judging student performance on the task; Develop a reliable rating process (Herman et al., 1992, p.8).

Teachers' work to help their learners be prepared for any proposed assessment plan should commence at the beginning of the school year. Educators should consider giving learners a clear picture about the course syllabus on which they will be assessed, in addition to clarifying each element's weight and the assessment scale that will be used to determine each component's weight.

such a scale would inform the students that their attitude, effort and individual progress count just as much as test results (Smith, 1996, p.36).

From these elements it is possible to involve students in some of these steps so that they can understand what is required from them and what the principles are on which they will be assessed and with teachers' support, the assessment process could motivate students'

learning (Torrance & Pryor, 1998; Butterfield, 1990; Centre for educational research and innovation, 2000; Tomlinson, 2001; Blanchard, 2002; Brophy, 2004).

5.4.6.2.   Self Assessment

One possible technique for encouraging learners' participation in the assessment process is learners' self-assessment. Since one of the aims of formative assessment is to involve students actively in their learning, self-assessment may be used as a powerful method to apply this concept. Through the application of this approach, students may gain the ability to direct their learning needs according to the feedback that they get from comparing their past and current educational progress with the specific standards and criteria that they and their teacher have set. There are many advantages that accompany this type of assessment, among them that it

> *encourages the self-reliance and self-direction that humanistic theories prize. Self-assessment is itself a crucial skill for work and for learning. It encourages students to take responsibility for their own improvement, and is the route to excellence in any field... Students will never take responsibility for their own improvement until they learn to be constructively critical of their own work* (Petty, 2004, p.17).

Moreover, some researchers (Gipps et al., 2000; Black, 2001) indicate that a self assessment or self evaluation represents the final product of the meta-cognition strategies that students should develop throughout their learning. Gipps et al. (2000) define meta-cognition in a way that provides a comprehensive clarification about its meaning and describes all the thinking activities that are included in this process. In addition, meta-cognition:

> *refers to a second-order form of thinking: thinking about thinking. It includes a variety of self-awareness processes to help plan, monitor, orchestrate and control one's own learning. Such learners monitor their learning using strategies like self-questioning, in order to get the purpose of learning clear, searching for connections and conflicts with what is already*

known, and judging whether their understanding of the material is sufficient (Gipps et al., 2000, p.9).

Many key writers (Gipps et al., 2000; McDonald & Boud, 2003) argue that whenever learners are encouraged to take responsibility for their learning through direct self assessment, this may increase their level of awareness of learning and assessment ownership, in addition to the importance of their teachers' assessments and feedback.

> *they can feel that they are in the driving seat, acquiring the sort of autonomy that mature adults achieve when they are able to review what they are doing and make their own judgments about how to improve it* (Wragg, 2001, p.65).

One of the basic requirements in the self assessment process is to have well defined standards and criteria by which learners can assess their progress. In addition, they can compare their present abilities with the ones they finally want to achieve through the learning process. Wragg (2001) explains clearly the logic behind target-setting by teachers and learners and its positive consequences for both of them:

> *at its best, target setting can give a sense of purpose and direction, for individual students as well as for whole groups, especially if both students and teachers are party to the process, rather than the victim of it* (p.84).

Whenever the proposed targets become clear for both teachers and students, through their discussion and contribution to target setting development, then it is possible for both of them to be involved practically in the self and peer-assessment processes. In line with this thinking, Harris and Bell (1994) have interpreted the major factors in students' self-assessment processes to include:

> *a self-directed and determining learner setting their own assessment criteria, judging their learning processes (or products) against these criteria, and making decisions based on these judgments. The learner may well also have set their own goals for learning, determined their own programme of study and performed the learning deemed necessary* (p.111).

The same concept of self-assessment was introduced by Gipps (1994) when she explained clearly and comprehensively all the expected processes and procedures of students' self assessment application. It is essential that every student should go through these processes to be sure that any sort of self assessment they may perform in the future to get information about their past performance will lead to practical and valuable feedback.

In Gipps' view, the essential features of such practice, and evidence that learners have comprehended the major tools of self assessment technique,

> *is that the student comes to hold a notion of the standard or desired quality similar to that of the teacher, is able to monitor the quality of what is being produced at the time of production, and is able to regulate their work appropriately* (Gipps, 1994, p.126).

These standards and criteria could differ in their forms and varieties depend on the type of feedback teachers are required to deliver to learners.

> *indeed, working out criteria for assessment, what should be weighted, what constitutes 'good', 'accurate', 'imaginative', 'successful' work, whether literal grades (A, B, C, etc.), numerical marks, or written comments will be necessary, can itself be very insightful for students, enabling them to discuss and argue about the purpose of the exercise and what is valued* (Wragg, 2001, p.65).

Whenever students are involved in these processes to accomplish the previous levels of actions, then it is possible to confirm that they have started to practise self monitoring of their current skills and learning abilities. Those previous requirements could account for some educators' concerns about learners' ability to conduct this type of assessment, especially with young students, because some of them may underestimate their abilities and, as a consequence, this may perhaps negatively affect their confidence and self esteem. For other learners, self-assessment:

> *could be debilitating, imparting a sense of failure by inviting them to strip off their defences, many of which may have become well oiled* (Wragg, 2001, p.65).

On the other hand, these worries are not so serious as to prevent learners from assessing

themselves and their peers, since they may get some help from their teachers by supporting

them with feedback whenever it is needed (Wragg, 2001; Gipps, 1994).

Smith (1996) provided useful guidance that can be used in classroom settings to

address students' self assessment, in the form of six steps that should be followed to ensure

a proper application of this approach. The importance of this method is to give teachers a

systematic plan that they can follow to make certain that any attempt to apply self

assessment in their classroom will improve students' performance and be a valid method to

implement. The process starts with providing the learners with the course objectives and

outlines so that they can understand what they can expect and what their teachers expect

from them; followed by a discussion between the teacher and his/her students about what

they have achieved at a certain point of time; grouping students to provide lists that contain

different activities that they should be assessed; voting on a specific list they prefer to be

assessed on; grouping students again to weight the course work components of the

previous list and voting on one proposal and here the teacher should approve the weighting

in this list. Finally:

> *the learners are asked to assess themselves according to the newly created*
> *scale, and thereby they analyse their own learning based on the main*
> *components of the course. The teacher assesses the learners independently,*
> *and the average mark is calculated and used. If the discrepancy between the*
> *teacher's and the learner's assessment is 10 per cent or more, the teacher*
> *should discuss the mark with the learner in an individual teacherial. If the*
> *process is well planned this does not frequently happen* (Smith, 1996, p.37).

In fact, findings from many studies indicated that students' self assessments usually agree

with their teachers' assessments and it rarely happens that they over-estimate or under-

estimate themselves. In addition, as students move to more advanced grade levels, their

self-assessment accuracy becomes more accurate, since they tend to be more experienced in this activity (Hartley, 1998).

However, there are some difficulties that may be associated with learners' self assessment and could affect the effectiveness of this technique. Among these problems are students' correct understanding of self-assessment procedures and how properly they should assess themselves according to the syllabus of the criteria, since even when students are provided with clear criteria to follow in their assessment process, they are likely to assess themselves in relation to their whole performance and ability, with regard to their peers' abilities and skills. In addition to this barrier, there are other elements that may affect students' self assessment such as:

> *students' perceptions of teacher expectations, their views on what is socially acceptable and their anxiety not to lose face* (Gipps, 1994, p.129).

Therefore, before progressing to the process of giving learners more power over their assessment through self and peer assessment techniques, it is essential that learners should develop some assessment skills, to be prepared for such a move. Indeed, it is important to prepare students on the self assessment process, so that a kind of agreement between teachers and learners can be reached. Furthermore, it is important that learners can assess if the current level of attainment represents an improvement on prior performance and if they have met their teachers' requirements.

Some researchers (Black, 2001) believe that positive interaction between teachers and their students is one of the most important actions that could help learners to be more confident about their capabilities and to be well prepared for self and peer assessment. Black believes that:

> *with better interaction in the classroom teachers will be in closer touch with their students' progress in understanding, students will become more active and responsible as they become involved in expressing their thinking to their*

teachers and to their peers, and students will be drawn into taking responsibility for their learning through self and peer assessment. All this should lead to enriched learning now and to students who are better equipped to learn in the future. Thus the promise is that standards will be raised in ways that are real rather than illusory and in ways that will yield benefits beyond performance in tests (Black, 2001, p.76).

In addition, to prepare learners for more constructive self assessment, this requires that "teachers may encourage students' understanding of marking criteria and encourage students to reflect on their strengths and weaknesses" (Gipps, 1994, p.129). As well, the learner should be trained to "reflect on her performance in relation to the standard expected and how it can improve" (Gipps et al., 2000, p.10).

5.4.6.3.   Peer Assessment

Another recognized method of involving learners in their teachers' assessments is peer assessment. Students can benefit from their peers' notes, through formative discussions and negotiations, regarding a specific learning process (or product), to get positive feedback concerning their learning. This type of assessment can be done with group of students (Harris & Bell, 1994). The procedures mentioned are the main practical uses of peer assessment and can be applied, whenever it is possible, in classroom settings.

However, the same practical requirements that have been explained in relation to learners' self assessment practice should be considered here, as the same learners will employ this new technique. Before an individual learner proceeds to evaluate their peers' educational performance and progress, they should have a clear idea about the standards and criteria that should be applied, to give their peers valid feedback. The aim is to guarantee accurate feedback, and to avoid any learner's misunderstanding of the process that may occur during this assessment application (Harris & Bell, 1994).

Besides, it is necessary to take into consideration the nature of the relationship between the learners themselves, since this could negatively affect peers' assessment of each other. For example, sometimes learners may compete with each other to get better grades and to be seen as the brilliant student in the class. Therefore, in such situations it might not be appropriate to let learners assess each other, because they may harm their peers by improper assessment of their attainment:

> *even if they are meant to work collaboratively, they may not always behave harmoniously* (Wragg, 2001, p.67).

Some researchers (Hartley, 1998) indicate some of the practical problems that may follow the application of this kind of assessment, and one of the main concerns that some studies raise is the validity of peer assessment, since it may not agree with teachers' assessments. However, most of the studies that have been done in this particular area showed that the differences between students' assessment of each other and teachers' assessments was not statistically significant.

After describing the main techniques in formative assessment and the possible methods teachers can apply to encourage learners' participation in their learning and assessment process, it is important to indicate that teachers' understanding of all these aspects is the major factor in this whole process. Therefore, teachers' awareness of the aspects of classroom assessments in general and formative assessment in particular, in addition to their training in classroom assessment practices, are important matters to consider in the next sections.

5.5. Teachers' Awareness of Formative Assessment

Most of the research that has been done on alternative assessment indicates teachers' preference and respect for more informal and practical assessment practices, such as formative assessment. On the other hand, this can only be achieved by reducing the amount of pressure and stress teachers face in the current traditional assessment practice, which focuses on formal practice of a universal assessment, and by enhancing the role of each partner in the teaching and learning process, teachers and learners. According to Black (2001), teachers are the most significant factor in the development toward alternative assessment techniques that promote students' learning. They should, therefore, have access to the major tools and skills they need to implement formative assessment in practice (Black, 2001).

However, there are some important issues that are related to formative assessment application in schools and teachers' understanding of the tools for this kind of assessment. Some of the important questions that some experts on educational assessment (Harlen & James,1997; Black & Wiliam, 1998) have raised regarding formative assessment application in schools are whether teachers and administrators have a clear picture about this new kind of assessment and how to apply it successfully in schools. In addition, to what extent can teachers benefit from their proper application of this assessment to help students gain access to their learning problems and have feed forward insight to further modification and adjustment? Do teachers, in fact, have enough time to use this useful instrument inside their classrooms to help learners solve their achievement problems and have an insight into the next step in their learning?

Harlen & James (1997) have pointed out that some issues related to formative assessment practice in schools may suggest that the main principles of this kind of assessment might be unclear to people who are dealing with students' learning. Further, teachers could be using the key features of formative assessment in their classroom practice without knowing that their assessment procedure is formative in fact.

5.6.   Teachers' Training on Assessments

It is necessary to indicate here the importance of teachers' training in this context. Educational practices in each aspect in the learning process are improving all the time. This can be found in curriculum design, instructional plans, teaching methods, and information technology uses. According to Bottery & Wright (2000, p.120):

> *as a form of work, teaching has changed very significantly and so it would be quite appropriate to suggest that teachers, both in service and those about to embark on a career, need careful preparation in a wide and increasing range of 'basic skills'*

Assessment techniques are among these essential elements in the learning process. Therefore, it is important to provide teachers with the appropriate training on the different aspects of assessment, including formative assessment, since many studies, researches and projects (Gipps et al., 2000; Clarke, 2001; Wragg, 2001; Black et al., 2003) proved that teachers can benefit practically from their peers' comments concerning questioning skills and experiences, in addition to external help from universities and educational organizations. Additionally, it has been noted through these projects that researchers and teachers have spent much time conducting discussions and workshop sessions and group work activities about the proper ways to develop effective classroom assessment skills.

These activities include using teachers' previous questions to evaluate their strengths and weaknesses and the proper ways to modify these questions to make them more beneficial to learners, in accordance with formative assessment requirements. Teachers:

> *thought about the potential each question might have to promote thinking and discussion and predicted the types and varieties of answers that these questions might evoke from their classes* (Black et al., 2003, p.34).

Wragg (2001) signifies the importance of teachers' training in assessment practices in general, and the influence of this kind of training on the future of educational assessment and teaching and learning development. Since past researches and figures indicate that teachers' assessment was not a significant factors in any teachers' evaluation agendas, teachers tend to give this particular element little attention in their actual practices. Wragg's (2001) explanation about the importance of training on assessment indicates that:

> *assessment, like teaching itself, consists of thousands of repeats and rehearsals of sometimes similar, sometimes different actions. During their career, teachers lay down deep structures which inform their actions. Careful reflection followed by deliberate efforts to change practice for the better are essential if they are to improve their professional skills. Assessment is at least as important as many of the other features of in-service programmes and much more important than some, not just to teachers but to the students, whose learning can be positively enhanced when assessment is handled with care and skill* (p.84).

Usually, teachers are asked and encouraged by professionals, educational researchers and assessment studies to use different teaching and assessment strategies in their classroom practice for the benefit of learners. They frequently use many teaching approaches in their classrooms, but little is known about the main characteristics of each particular tactic. Indeed, the findings of some studies show that:

> *many teachers did not have the confidence to make their own assessments of students' levels, or did not realize the need to do so, and used other strategies* (Harlen, 1996, p.19).

Besides, classroom assessments that contain some significant features such as feedback and formative questioning are considered as among the most important techniques to be used in classrooms, but they are rarely considered for application in practice. One possible explanation is that less support and assistance is given to teachers to guide them to comprehend the various ways to use teaching and assessment strategies and the appropriate time and situations to apply them (Gipps et al., 2000).

An important study that was conducted by Stiggins and Conklin (1992) supports this conclusion regarding teachers' ability to apply the findings from classroom assessment to modify their instruction. The findings from teachers' responses to a questionnaire showed that even when they used different methods to evaluate their students' weaknesses with the aim of considering them for future remedy, "they were less skilled in providing any in depth analysis of those weaknesses" (Stiggins & Conklin, 1992, p.49). Smith (1996) argues that teachers are always being asked to carry out several classroom assessment techniques and should know how to apply all sorts of assessment. However, most educational organizations and training establishments, from which teachers graduate, do not always provide teachers with the required information regarding the theory and practice to support their future application of assessment in their schools.

Therefore, it should be taken into consideration that whenever a new assessment technique or test is set to be implemented in schools, teachers should receive extensive training on that particular test and/or assessment, to be familiar with the techniques to be used and to understand the possible advantages they may get before proceeding to apply it (Black, 1998). It is important to provide teachers with training sessions and workshops that introduce the major aspects of effective assessment strategies and the possible approaches to perform these strategies. Other researchers argue that:

there is a pressing need for more support for teachers to develop a shared professional view of what constitutes formative assessment and for training in relevant techniques (Weeden et al., 2002, p.14).

In addition, it is even more desirable in some classroom assessment settings, whenever a specific assessment plan requires learners to appraise themselves and their peers through self and peer assessments, to consider training of both teachers and students in such practices, so they can appropriately apply them in classroom situations (Gipps, 1994). Gipps argues that there is evidence that teachers are not well trained in educational assessments, and therefore she suggests that, to get the most benefit from educational assessments and to help educators understand the different types of assessment and how to apply them properly, teachers should be educated about these different classroom assessment techniques.

Gipps (1994) believes that many stakeholders are beginning to comprehend the possible advantages of teachers' informal assessment. However, the most important change that should be taken now towards more effective assessment practices is to translate these beliefs into more teachers' training in different informal assessment techniques involving observation and questioning, so that formative assessment can improve educators' teaching and improve students' learning. Others (Charles & Watts, 1996, p.120) argue that to improve the credibility of teachers' assessment in general "in-service training for it will have to be built into the system".

Teachers usually want to participate in training courses and workshops in the various aspect of assessment, since this gives them the chance to be more knowledgeable about their subject and more proficient. One of the studies (Edmonds & Lee, 2002) conducted on teachers' beliefs about their professional development, showed very significant results about teachers' willingness to participate in such activities. The findings

143

indicated that teachers felt these training courses increased their personal confidence and made them feel more confident in teaching their subjects. According to teachers, beliefs, the training workshops helped them to keep up-to-date with elements relevant to their practice, such as new teaching strategies. When they were asked about their willingness to participate in such activities in the future, they indicated their desire to do so.

5.7.   <u>Conclusion</u>

This chapter has introduced some major characteristics of new assessment techniques that focus on assessment for learning rather than of learning; assessment that promotes more effective interaction between teachers and learners on the one hand, and among students themselves on the other. This assessment as described in the assessment literature aims to overcome the negative aspects that summative assessments are believed to have on students' learning and achievement.

The main features of successive implementation of such assessment techniques have been discussed in this chapter, to identify the main advantages behind the application of this type of evaluation practices. Accounts of the successful performance of formative assessment in schools confirmed that future application of this type of assessment may improve students' academic progress, in addition to helping teachers to provide learners with informative feedback.

This chapter and the two preceding ones have highlighted a range of issues related to the purposes for which assessment may be used, factors influencing assessment practices and outcomes, the impact of high-stakes testing, and the principles and requirements for formative testing. This information represents the framework for investigation of Qatari teachers' views on their assessment practices, which is the subject of the rest of the thesis.

The next chapter will focus on the research methodology of the current study by explaining in more detail the choice of survey methods to answer the research questions. In addition, it will provide information about the main research questions, sampling procedure, survey methods, and other essential elements.

Chapter 6

Methodology and Survey Design

6.1. <u>Introduction</u>

The purpose of this chapter is to describe the main characteristics of the methodology and survey design used in this research. First of all, the chapter starts by presenting the main research questions to be answered in this study, followed by explaining the type of methodology used in this research to aid in selecting the procedures used. Then, the main characteristics of the population and the sample studied in this research will be addressed, besides introducing the instruments used in the study, including the main questionnaire and focus group interview, the validation process, and the pilot study.

Finally, the chapter will clarify the procedures of data collection, analysis of questionnaires, analysis of teachers' comments on questionnaires and focus group interviews, and ethical issues considered while administering the questionnaires and conducting focus group interviews.

6.2. <u>The Main Research Questions</u>

There were seven questions to be addressed in the study to investigate teachers' perceptions of current assessment practices in Qatar. These research questions were constructed to address the main elements of interest, including teachers' perceived skill with different assessment procedures besides their application of these procedures. Furthermore, the research questions considered the various aspects of assessment

146

application in schools, including factors that affect teachers' assessment practices, the main use of assessment results, and students' involvement in the assessment process. The following were the main research questions to be answered through the data analysis:

1- What are teachers' current perceptions of their skills with the different assessment techniques?

2- How frequently do teachers think they apply the various assessment techniques?

3- What are the major factors that influence teachers' assessment practices?

4- For what purposes are assessment results used in schools?

5- How are students involved in the current assessment practices?

6- What are the major effects of assessments on students' learning?

7- Have teachers had any training in assessment methods?

6.3. Research Methodology

This research study was planned to provide descriptive information about teachers' current classroom assessment practices in public secondary schools the State of Qatar. The research objectives concern some important issues that need to be assessed to reach a conclusion concerning teachers' assessment practices. To achieve these goals, both quantitative and qualitative approaches were implemented to provide information and evidence from the field that may help in answering the major research questions (de Vaus, 2001). The quantitative approach is usually employed to address research objectives, such as describing the characteristics of an event or issue as it appears in its environment; examining the existence of relationships between two or more variables; and determining a cause-effect relationship between two factors (Gay, 1996). Therefore, this approach was appropriate in this study to reach its goals, since the major aim of the research was to

describe a current situation, namely teachers' assessment practices in Qatar. In addition, the qualitative approach was also used in this research, since this methodology aids in getting more focused and in depth facts about the issue of interest. The descriptive survey method was selected as the appropriate technique for this study, since one of its main characteristics is investigating a specific observable issue as it happens in the real world and then providing some scientific facts about this particular issue through researchers' explanations and presentations (Leedy, 1985). The data obtained from the participants in this study were derived mainly from a questionnaire survey and focus group interviews, and these types of data collection methods are considered as the most used methods, besides observation, in descriptive research (Gay, 1996). The following sections will explain the study sample, the instruments used, the survey design, and procedures.

6.4. Sampling Procedures

Before explaining the sampling methods applied in this study, it is necessary to describe the key features of the main population from which the main sample were obtained. First of all, the main demographic features of the target population from which the sample was drawn, in addition to the key characteristics of the survey sample itself, will be described. After that, the sampling methods implemented to select the research sample will be explained, in addition to figures about the entire sample used in this study and the degree to which they contribute to understanding some of the characteristics in the focal population. It is important to note here that all teachers who participated in answering the interview questions were also involved in answering the questionnaire items, since their schools were also part of the research sample.

148

6.4.1. The Main Population Characteristics

Tables 6.1 and 6.2 represent some demographic characteristics of the whole population of public secondary schools and teachers in this sector. According to Table 6.1, it is clear that within the total number of public secondary schools in Qatar, 38 schools, there are 16 schools for boys and 22 schools for girls, accounting for 42% and 58%, respectively.

Table 6.1
Number of Public Secondary Schools

Type / Count	Boys	Girls	Total
Frequency	16	22	38
Percentage	42.0	58.0	100

(Source: Ministry of Education, 2007, p.61)

Table 6.2
Number of Teachers in Public Secondary School

Gender / Count	Male	Female	Total
Frequency	620	1028	1648
Percentage	38.0	62.0	100

(Source: Ministry of Education, 2007, p.61)

In addition, Table 6.2 shows that the total number of teachers, male and female, is 1648 and within this figure there are 620 male teachers and 1028 female teachers in those schools. The greater number of female teachers than males is expected, since the number of girls in secondary schools is more than boys (8512 and 6535, respectively) and there are 286 classes for girls and 222 classes for boys (Ministry of Education, 2007).

An important point should be made here about the new school development project designed by the Higher Council of Education. The new plan introduced a new type of school, that is, independent schools, which are funded by the government and managed through the Higher Council of Education.

149

Therefore the number of public secondary schools governed by the Ministry of Education has decreased from the original number of 45, 19 for boys and 26 for girls in 2002/2003 (Ministry of Education, 2004), since some of those schools have already been transformed into independent schools and are no longer affiliated to the Ministry of Education. Correspondingly the number of teachers working in public secondary schools also went down from 721 men and 1063 women (Ministry of Education, 2004) to the current figures. However, the number of secondary independent schools has increased to 6 schools, 3 for boys and 3 for girls since the commencement of this project (Ministry of Education, 2007, p.52) and more public schools are converting to this new system.

6.4.2. The Sampling Process

The first step in planning for sampling from the population is to identify the appropriate sample size. The literature (Dornyei, 2003) suggests that for survey research, the proper sample size should be within 1% to 10% of the target population. Some writers (Field & Hole, 2003; Field, 2005) have argued the importance of having a bigger sample size, because this may help in representing the main attributes in the target population.

The sample size for this study was set to be roughly in the range 40%, and the main purpose of having this high percentage was to be prepared for likelihood of a low response rate and/or incomplete questionnaires. Gorard (2001) explained this possibility, as follows:

> *if you set out to get 100 respondents, maybe only 50 will respond. Many of these will have missing variables (questions not answered, official records not found, etc.), and others may be lost at coding or transcription (researcher error or unreadable responses). You may actually achieve only around 30 fully completed responses for analysis* (p.15).

Besides, larger samples provide more accurate results (Dawson, 2007), and "lower the likely error in generalising" (Robson, 1993, p.136). All these previous aspects were considered when determining the proposed sample size.

Since the total number of teachers in various secondary schools, boys and girls, is 1648 teachers (see Table 6.2, p.149), a sample size of 40% results in approximately 660 teachers, males and females. This number should be divided, then, into two groups according to teachers' gender, to be representative of their actual proportions in the target population (see Table 6.2, p.149). From the 660 teachers, 251 (38%) should be male teachers and 409 (62%) should be female teachers. Table 6.3 illustrates the desired sample size according to teachers' gender. This distribution, which corresponds with that in the population, may help to make the sample more authentic and representative (Wilkinson & Birmingham, 2003).

Table 6.3
The Desired Sample Size According to Teachers' Gender

Gender / Count	Male	Female	Total
Frequency	251	409	660
Percentage	38.0	62.0	100.0

After identifying the appropriate number of teachers from both genders, the next step was to ensure that each school, boys' and girls', would have equal probability of being selected to participate in the study. For this purpose, both stratified sampling and simple random sampling methods were used. Simple random sampling is based on the theory that:

> *each possible sample of size n is equally likely to be drawn. This sampling principle assures that each unit in the population has probability (n/N) of being selected for the sample* (Freund & Wilson, 2003, p.606).

Stratified sampling, however, has a different rationale and more complicated procedure if compared with simple random sampling:

> *stratified sampling is a sampling method in which the population is divided into portions, called strata, which are expected to contain relatively homogeneous units, and samples (either random or systematic) are taken independently in each stratum* (Freund & Wilson, 2003, p.609).

Proportional stratified random sampling method was the appropriate technique to use within the stratification processes, since the population has more than one group, boys' schools and girls' schools, and different locations of schools, city and rural. Besides, the number of male and female teachers, in addition to the distribution of schools, city and suburbs, in the target population is markedly different. This particular stratification procedure enabled these dissimilarities to be considered in order to obtain a more representative sample (Leedy, 1985).

Before starting the sampling procedure, two lists of all public secondary schools, boys' and girls', in Qatar were obtained from the Statistical Section of the Department of Technical Research in the Ministry of Education to help in selecting the secondary schools that would participate in the study. These lists contain the name of schools and the total number of teachers in each school. This procedure helped to define the first two strata, schools for boys and schools for girls.

Next, within each stratum, schools were divided into another two strata, schools within the capital city of Doha and those in the suburbs. After all the strata had been identified, the final step was to draw a simple random sample from each stratum by considering the proportions of teachers, males and females teachers in the population, using a list of random numbers, and randomly selecting the first number to start with. This method helped to ensure that the sample would adequately represent schools from each stratum and that all schools from different regions would have equal probability of being

chosen for the study (de Vaus, 1995). It therefore made the research design more proficient and accountable for all groups (Iarossi, 2006). Finally, this sampling technique was expected to improve the research quality, and provide more valid results that could be generalised from the research sample to the targeted population (Field & Hole, 2003).

6.4.3. The Main Research Sample

The main purpose of this section is to describe the key features of the whole sample that was randomly chosen to participate electively in this study, and this description will include the total number of public high schools and teachers that were actually involved in the research.

Table 6.4 indicates the total number of public secondary schools for boys and girls that were chosen from the 38 public secondary schools in Qatar. Among the total 18 schools involved in the study, 8 schools were for boys and 10 schools were for girls.

The following Table (6.5, p.154) shows the total number of teachers, male and female, who were teaching in these schools and were chosen randomly to take part in this research. The total number of teachers who participated in this study was 490, of whom 189 were male and 301 female, 38.6% and 61.4% respectively. This number of teachers represents 30% of total teachers in the parent population (see Table 6.2, p.149).

Table 6.4
Number of Schools in the Sample

Type Count	Boys	Girls	Total
Frequency	8	10	18
Percentage	44.4	55.6	100

153

Table 6.5
Number of Teachers in the Sample

Gender / Count	Male	Female	Total
Frequency	189	301	490
Percentage	38.6	61.4	100

The total number of focus group interviews was seven; four group interviews with teachers and three group interviews with students. Within the four focus group interviews with teachers there were two with female teachers and two with male teachers from different schools within the main sample. In addition, for the three group interviews with students, there were two interviews with boys and one interview with girls. The number of students who participated in the interviews was 18, 15 (85%) boys and 3 (17%) girls.

Table 6.6
Number of Teachers who Participated in the Interview

Gender / Count	Male	Female	Total
Frequency	8	9	17
Percentage	47.0	53.0	100

Table 6.7
Number of Students who Participated in the Interview

Gender / Count	Boys	Girls	Total
Frequency	15	3	18
Percentage	83.0	17.0	100

6.5.   Research Instruments

Since the major aim of this study was to survey the classroom assessment practices of teachers working in secondary public schools in the state of Qatar, the descriptive survey method was the main research method used in this study. Questionnaire and interview techniques were the major data collection procedures employed in this process. These two instruments are among other important and effective techniques, on which descriptive research relies to gather information about a specific event or issue (Sarantakos, 1998). The main purpose of this practice was to expand the methods of data collection to include more than one method to achieve the focal aim of this study by providing enough descriptive information about the issue of interest. Applying these two methods in this study helped in exploring the subject of this research in a more comprehensive way, since no researcher in Qatar has studied or surveyed this area before. In addition, it could help to obtain new insights about future recommendations and suggestions to develop new plans and strategies to increase teachers' ability to apply multi-assessment techniques in classroom settings through teachers' training. According to Marshall and Rossman (1995):

> *If the research goal is description of processes, concepts, categories, and typologies, then sampling and counting are merely tools for analysis, not necessarily part of the research findings (p.105).*

The following sections provide information about both techniques applied in this study. This includes the development of the questionnaire, assessing its translation, its validity, and, finally, piloting the last draft of the questionnaire. Then, the focus group interview technique employed will be discussed to illustrate the main features of this type of qualitative method.

6.5.1. The Questionnaire

A questionnaire was one of the major instruments used in this study. Questionnaires are regarded as a very useful method that helps to save time, money, and effort if compared with other methods, such as personal interviews. In addition, using questionnaires helps to produce quick results which will lead to quick analysis and faster feedback, in addition to taking into account respondents' assurance and confidentiality (Sarantakos, 1998). The questionnaire design is an important element that any researcher should take into account when trying to construct a specific one. It is essential in this process to design an appropriate questionnaire that encourages respondents to answer its items. One way to do this is to avoid designing a plain questionnaire that is not attractive to participants, since some researchers recommend that questionnaires should be more appealing and engaging to encourage participants to answer them (Oppenheim, 2003).

6.5.1.1.   Questionnaire Development

Many factors were considered when constructing the questionnaire. One of the most important elements was to clarify the reason for asking any specific question and how it was related to the main research questions. Sudman and Bradburn (1982) provided some useful guidelines that were followed when developing their questionnaires. These included focusing deeply on the research questions before thinking about items to write in the questionnaire to help in ensuring that all research questions were covered.

An additional vital factor was to write the items in order of significance to the researcher. Some writers (Sudman & Bradburn, 1982) recommend starting with simple and easy questions before asking the more difficult and main questions. In addition, it is

important to raise some specific questions at the beginning rather than others. Burton and Cherry (1970) stated that:

> *the sequence of questions must be considered before their wording, and it must be decided whether factual or attitudinal questions should be asked first; where the profile questions should be placed; whether any questions should be repeated in different places for corroboration* (p.57).

The idea behind using these techniques was to eliminate or reduce any technical problems such as validity and reliability of the questionnaire, and make it easier and more practical for respondents to participate in the activity, since some of them may not be familiar with such procedures. Also, it was important to avoid any leading questions that could affect participants' responses.

Furthermore, Salant and Dillman (1994) suggested that researchers should employ different kinds of questions when writing their questionnaires to help them get the required information from their participants. This strategy could help to avoid respondents relying on any specific question and may, as a result, reduce or avoid measurement error (Salant & Dillman 1994). Therefore, all these elements were considered when preparing to write the questionnaire items.

The development of the main questionnaire of this study involved several steps to reach the final draft. First of all, the questionnaire items were designed to reflect understanding from the literature about the main characteristics of teachers' assessment practices and current developments in assessment techniques, besides reflecting the main research objectives. After the main items to be included in the questionnaire were identified, they were grouped into six different sections. Then, the items were distributed across these sections according to the attribute they measure.

The final draft of the questionnaire consisted of six sections, each addressing a specific question through a list of items. The first section included items related to teachers' major characteristics, such as gender, major, subjects, and years of experience. The second section contained questions about teachers' perceived proficiency in the construction of traditional test item forms, in addition to their skill in applying other assessment techniques, such as discussion, observation, interviews, students' self and peer assessment. The third section concerned teachers' perceived frequency of application of different assessment methods, while the fourth section focused on factors that affect teachers' current assessment practices. To assess to what extent students are involved in the assessment process, the fifth section contained some items about such practices and the way they are applied in the classroom setting. The last section of the questionnaire focused on teachers' training on various assessment techniques, including their past training experiences, the number of workshops they had attended, the frequency of workshops, and teachers' opinions regarding the usefulness of these training sessions (see Appendix 1, p.341).

Various approaches were employed in writing the questionnaire items. This was done by employing different types of questions, including closed-ended questions, such as yes/no, and open-ended questions, such as 'others-please specify'. Using a variety of questioning techniques in questionnaires aids in acquiring the demanded information from the respondent in various ways (Wilkinson & Birmingham, 2003).

The majority of items were constructed using a Likert scale. The respondents were provided with lists of items that measure a specific construct or attribute for the various sections, and they were asked to respond to each item in the lists by using a Likert-type scale. Among the advantages of this type of scale are that they give participants more choices to express their opinions about a specific attribute, and that the different categories

are easily understandable (Field & Hole, 2003). The scale contained five possible options to help participants indicate their response to a specific item. For statements in section 2 of the questionnaire, the scale options went from 'not skilled' to 'totally skilled', and statements in sections 3, 4, and 5 from 'never' to 'always'. In section 6, question 21 had another scale that offered 5 responses, from 'not useful' to 'essential'. Besides, the researcher supplied the participants with additional information at the beginning of each section to encourage them to answer all items correctly and honestly.

The cover letter of this questionnaire provided a general description of the study and explained the major rationale and goal of conducting it, and how it would be beneficial to teachers to participate in this study. A brief description about the purpose of all six sections on the questionnaire and the way to answer each part of it was given in the introductory letter attached to the questionnaire, as well, to ensure that all sections in the questionnaire were clearly explained and to make it easy for participants to choose the appropriate answer.

Moreover, it was made clear through the letter that all the responses from the participants would be kept with the researcher and care taken with teachers' privacy, to make sure that nobody would have access to their responses and these would not be revealed to others, since using questionnaires in research studies may affect the privacy of respondents and/or may have direct effects on participants (Marshall & Rossman, 1995). The cover letter clarified to participants that it was not necessary to write their names, to ensure that nothing would prevent them from answering honestly, and to encourage all participants to take part in this study.

Finally, the researcher's mobile number and his e-mail address were given to them in case they had any questions and/or comments about the items or the questionnaire in general. Such an approach can help in maximizing response rates by encouraging respondents to participate in the study (Wilkinson & Birmingham, 2003) (see Appendix 2, p. 345). Another letter was sent also to school principles to explain to them about the research aims and work that should be conducted (see Appendix 12, p.356).

6.5.1.2. Assessing the Arabic Translation

Following the completion of all the sections in the questionnaire, the next important step was to translate the questionnaire from English to Arabic. Various procedures were used to ensure the translation accurately represented the English version of the questionnaire. Firstly, the researcher translated the questionnaire into Arabic. After that, the questionnaire was given to two private translation offices in Qatar who were asked to evaluate the researcher's translation for accuracy and to add their comments about any changes required. The two offices reported that the translation was identical to the original questionnaire; Appendices 3 and 4 (pp.346-347) contains the two offices' reports about the Arabic translation. Next, the questionnaire was given to a specialist in Arabic language in the Ministry of Education to assess its grammatical correctness. All the feedback that was received from the different sources about the two forms of the questionnaire was employed to ensure the accuracy of the Arabic translation. The following procedure was to give the two questionnaire forms, the English version and the Arabic translation, to the College of Humanities at the University of Qatar for a final assessment of the accuracy of the translation after the changes made to both forms. The two questionnaire forms were sent to

both the Arabic and English divisions of the college, for them to assess the forms and provide their comments (see Appendix 5, p.349).

6.5.1.3.   Assessing the Validity

Validating the translated questionnaire was necessary before the main application. This included assessing the content validity of the sections to determine whether the questionnaire items really measured the attributes of interest (Field & Hole, 2003). This process helped to ensure that the questionnaire actually represented the most important factors that were identified throughout the literature review and emphasized in the research objectives (de Vaus, 2001), and to determine if there was anything important that was missing and should be included in the final version. The respondents were provided with enough space at the end of the questionnaire to give their opinions on the first draft of the instrument. This is another practice that can lead to more effective feedback from the respondents (Dawson, 2007). The validation of the questionnaire went through two main procedures, which involved showing it to judges and experts in various educational institutions that have expertise in educational assessment. This helped to assure the face validity of the measure (de Vaus, 2002). Validating the questionnaire went through different phases:

1- The questionnaire and the research questions were presented to three specialists in Assessment and Evaluation Unit in the Ministry of Education to confirm that the questionnaire items represented teachers' current assessment practices in the secondary schools, reflected its elements and corresponded to the research questions (see Appendix 6 and 7, pp.350-351).

2- After editing the questionnaire from the first stage feedback, a copy of the modified questionnaire and the questions were given to five instructors in the

College of Education at the University of Qatar. They were asked to assess the content validity, and make any other recommendations they considered necessary to improve the questionnaire (see Appendix 8, p.352). A few recommendations were suggested to improve some items and to add one new section in the questionnaire. Most of the comments were employed in the questionnaire draft by re-writing some items and moving some items to a new section.

3- The final stage in the validation process included administering the questionnaire to eight teachers of different subjects, who agreed voluntarily to participate in the validation process. The teachers answered the questions, but made no comments regarding the overall questionnaire.

4- This was followed by conducting a focus group interview with three teachers to obtain their comments or recommendations regarding the questionnaire items' clarity, to assess whether they represented the actual practice in secondary schools, and to establish the time needed to complete the questionnaire. As a result, some items that were not relevant to the current practices, according to participants, were deleted. Furthermore, a few new items were added to the questionnaire, such as the assessment specifics plan and score distribution standards, because participants indicated they were among the major factors that influenced their assessment practices.

These procedures were essential before piloting the questionnaire, to determine any possible problems in the structure and the items, and avoid any misconstruction in the main questionnaire. Showing the questionnaire to teachers and professionals in the Ministry of Education and the University of Qatar was very beneficial, since it helped to identify

required modifications to the questionnaire draft, before implementing it in schools. All these procedures, alongside the previous modifications, were needed to ensure that the questionnaire items were a representative sample of the whole universe of items in the assessment practice techniques, and were well constructed.

After modifying the final questionnaire draft to comprise all corrections and comments being provided by various sources, the next important procedure to perform was to pilot the revised draft of the questionnaire to assess its reliability through statistical analysis.

6.5.1.4.   Assessing the Reliability: The Pilot Study

The pilot study was another essential method to conduct to assess the content validity of the items in the questionnaire, and to get more feedback from the participants about the clarity of items and their function. Many research method books (Burton & Cherry, 1970; Fowler, 1995; Wilkinson & Birmingham, 2003) indicate that piloting procedure is one of the most important practices that should be undertaken by researchers during the process of developing questionnaires. Piloting the questionnaire helps in identifying the characteristics of the questionnaire items, and may help in making informative decisions regarding keeping some items, rewriting and/or rephrasing some others, and even deleting problematic items (Fowler, 1995; Green, Salkind, Akey, 2000; Wilkinson & Birmingham, 2003).

Another objective of this application was to determine if there were any ambiguous and unclear items in the instrument, in addition to gaining some comments from the respondents regarding ways of improving the questionnaire. Furthermore, since some research methods references (Wilkinson & Birmingham, 2003) recommend that the

questionnaire completion time should not exceed 20 minutes, piloting the questionnaire before the main administration helped to determine whether total items on the questionnaire matched this criterion. Furthermore, Burton and Cherry (1970) explained that embodying required changes to questionnaires after the pilot study may help in increasing the response rate and reducing the non-response rate. As well, it was important to look at the wording of a specific question to make it clearer for respondent to answer, since it is important to make questions clear to all respondents (Rea & Parker, 1992).

Therefore, after incorporating the significant modifications in various stages, the final draft of the questionnaire was piloted to ensure that the questionnaire represented the most important items representative of the actual practices in secondary schools. The questionnaire was administered to a sample of twenty-eight teachers. All the returns were collected from schools and were analysed by using the SPSS, the statistical analysis program. Coefficient alpha reliability was used to determine the reliability of the questionnaire, by eliminating ineffective items while maintaining the internal reliability of the questionnaire (Howitt & Cramer, 2005). It is considered as the "most common measure of scale reliability" (Field & Hole, 2003, p.48). Coefficient alpha is believed to be more powerful statistically in determining the internal reliability of a measure, such as a questionnaire, than the split-half correlations because:

> *it does not rely on just one split-half coefficient (a different split would result in a different coefficient) but on all the possible combinations of splits* (de Vaus, 2002, p.21)

Therefore, this approach was used in this study to analyse the questionnaire reliability and to determine which item(s) needed to be revised to be more useful, effective, and help in establishing more reliable instrument. This was done through the calculation of coefficient alpha. The item total correlations between all variables were high. The Alpha reliability of

the all items scale was 0.932, indicating that the scale had good reliability. Alpha values of 0.80 or more are considered satisfactory (Howitt & Cramer, 2005; Field & Hole, 2003). Another recommendation of preferred alpha value was made by Hinton, Brownlow, McMurray, and Cozens (2004) that indicated:

> *an alpha score above 0.75 is generally taken to indicate a scale of high reliability, 0.5 to 0.75 is generally accepted as indicating a moderately reliable scale, while a figure below this generally indicates a scale of low reliability* (p.363).

Assessing each item correlation with the total score was the other procedure to apply to assess the reliability of the scale. To reach this, the 'corrected item-total correlation' column was the main guidance to do this assessment. The output showed that most items had moderate to high corrected item total correlation values. However, a few items showed low and negative correlation coefficient with the total score. Therefore, for these specific items, it was important to decide the appropriate procedure to apply to modify these items to be more effective and correlate better with other items.

Before progressing with this action, another examination of all item correlations was conducted by inspecting the column headed 'alpha if Item deleted' to consider the impact of removing a specific item from the scale. The correlation values for those specific items demonstrated no major changes to total alpha value if these items were deleted from the main scale. Some experts (Pallant, 2001) suggest that if deleting the item will not yield a high alpha value, then it is recommended to re-write these items or alter their wording to make them more efficient. Besides, Green et al. (2000) imply that:

> *when making decisions about keeping or omitting items, you must consider the content of the item and not just the magnitudes of the correlation coefficients* (p.315).

Decisions had to be made, according to previous recommendations, whether to delete items with negative values, since they did not correlate positively with other items in the

questionnaire. To determine the appropriate decision to make for items with negative values, more than one analysis was made to determine total alpha values after deleting each item with low value. The outcome for each process showed that the calculated alpha (.932) would increase by approximately .001 whenever an item with a low correlation was deleted.

The results indicated that no significant change would be made to alpha if all items were deleted. Moreover, most of these items were important factors in the scale, and deleting those items might cause loss of important information regarding attributes being measured through the scale. Therefore, the decision was made to keep those items with low correlations, but they were revised and modified to increase the total scale reliability by correlating more with other items, and to be more functional for future application of the scale. After revising the items by re-wording them, the final draft of the questionnaire was constructed to be administered in schools.

6.5.2.   Focus Group Interview

Research interviews are among the most powerful methods in gaining access to participants' viewpoints concerning various matters in educational and psychology and other sciences. Face-to-face contact helps interviewers to observe how informants reply to their questions through their tone of speech, facial expressions and body language. It is also a good way to check whether each item functions effectively and should be retained for further use or whether it needs to be revised to make it more clear and applicable. The interview technique is different from any other method in social science research, because of the way that the researcher goes through from the beginning of the interview until he/she

reaches the end, in addition to the uniqueness of specific research objectives and the research questions to which the researcher wishes to find answers (Sarantakos, 1998).

Another reason for conducting the different types of interviews is that with questionnaires, no one can be sure that the all participants answered honestly to all items. In addition, the respondents could offer facts and information in the questionnaire, through their comments in the open-ended question section, different from the ones covered by the items, or raise other major issues, from their viewpoint, that need to be investigated through an additional instrument. There are several interview techniques that can be used in social research practice. Among these methods are structured interview, semi-structured interview, unstructured interview, and focus group.

The focus group interview was the main method applied to collect supplementary data about teachers' assessment practices and factors that influence their practices. There are many advantages of using this method to give access to respondents' viewpoints. Among these is the ability to gather more focused feedback and in depth information from a group of participants in less time if compared with individual interviews with each participant (Marshall & Rossman, 1995; Phillips & Stawarski, 2008). In addition, it can help in gaining more insight from the interviewees about the research problem, with more interaction between the researcher and interviewees, and among the interviewees themselves.

The interaction between the interviewees can be effective in raising different issues and participants may remind each other of aspects that some had forgotten to mention. Focus group interviews help to develop a dialogue between the interviewer and participants, and develop confidence to participate during the interview process by

watching others commenting on issues, and can raise important issues that the researcher had not considered.

Another advantage of focus group interviews is that it assists the researcher to obtain more information from the respondents that cannot be acquired through other data collection techniques, such as self-administered surveys. Some researchers (Keats, 2000) explained that among the main drawbacks that arise from such surveys are low response rates, non-representativeness of the returned surveys, misread or misinterpreted questions, and no time limit for surveys' return. In contrast, applying the focus group discussion enables researchers to gain a 100% response rate, and to build a good rapport with respondents, which may help in producing data that are more accurate and representative.

Focus group interview as a data-gathering tool in qualitative research supports the interaction between participants within the process, which is not appropriate and not applicable in other techniques, such as structured and semi-structured interviews. This technique encourages such activities between participants, since it helps to gain more insight about the research problem. Besides, such interaction between participants encourages them to express their feelings, share ideas, and raise topics, which may not be possible with other types of interviews.

Focus group discussion places no restriction on participants' ability to speak, explain, and indicate what they feel about a specific issue. It is a freely planned process to give confidence to all people involved in the discussion to contribute effectively. In addition, when some participants see others engaged effectually in the discussion, this may encourage them to explain their viewpoints and personal-experiences concerning particular issues.

> *the resulting combined group effort may produce a wider range of information, insight and ideas than that likely to be revealed by any single*

member of the group in a one-to-one-interview (Wilkinson & Birmingham, 2003, p.92).

Phillips & Stawarski (2008) have suggested three situations for the application of focus group discussions, as follows:

> *to evaluate reactions to specific exercise, cases, stimulations, or other components of a program; to assess the overall effectiveness of program application; to assess the impact of a program in a post-program evaluation* (p.26).

The first two situations cited by the authors correspond to the major objectives of the current study, which sought teachers' perspectives on assessment practices in schools and related factors. Therefore, the focus group interview method was the other major instrument used in this research study. However, some remarks can be made about this kind of interview that should be considered, and these are related to the specific nature of this type of interaction among a group of participants. One comment is related to the effects of some participants on others, since participants' views and beliefs concerning a specific matter might be altered during the interview process. This might happen if one or more participants expressed strong arguments regarding a particular issue, especially if most of the participants agreed on a particular matter. Therefore, one participant might modify his/her beliefs and opinions to agree with others' opinions (Biber & Leavy, 2006).

6.5.2.1.   Development of Questions

A number of researchers have explained that interviewers that develop their own questions prior to the practical interview tend to have total control over the topic, since they do not need any extra information from informants (Dohrenwend & Richardson 2003). Kvale (1996) also declared that interviewers should fully understand the interview topic framework and skilfully understand the different alternative techniques they may apply

according to the different situations with the capability to generate data and facts during their conversation with clients.

These views were taken into consideration while planning for the focus group interviews in schools. This researcher went through different resources that focused on aspects of qualitative research. Most of the books and articles being read about this topic helped to address the major factors to consider in planning for focus group interviews. The next section provides information about the practical conducting of focus group interviews in schools, besides some of the practices applied to ensure the ease of this process.

6.6.   Data Collection

Various procedures were adopted when commencing the practical application of this research to ensure that the research complied with the ethics and requirements of scientific research. First of all, an application for research consent was delivered to the Department of Educational Studies at the University of Hull to inform the officials in the university that the researcher was planning a field study. After that, a support letter was obtained from the Cultural Attaché's Office at the Embassy of the State of Qatar in London that described the researcher's plan to conduct a practical study in Qatar. It also asked the administrators in the Ministry of Education to provide the researcher with help and support to do his research (see Appendix 9, p.353).

Another letter was obtained from the Higher Council of Education that provided similar support to the researcher in his practical application of the study (see Appendix 10, p.354). Then, a consent letter was submitted to the Ministry of Education officials explaining the main objective of this research study, the field area of the study, and the major procedures that were to be applied to collect information from participants, namely,

distributing questionnaires in schools and conducting interviews with students and teachers from boys' and girls' schools (see Appendix 11, p.355).

After the ministry administrators had approved the practical administration of the questionnaire and the interviews, they sent two letters to its main departments to notify them about the researcher's study and commencement of work. These departments, as well, sent a confirmation letter to the sampled schools to inform them about the researcher's objectives and ask them to cooperate with the researcher in his work in these schools. The researcher, then, called the schools after a few days to check the letters had been received and to make appointments to start the field work.

6.6.1. The Questionnaire

After receiving the approval from the Ministry of Education and from schools' principals, the researcher started the field work. Appointments were made with each school to distribute the questionnaires, and the researcher himself went to every school to meet schools' principals to give them a letter that described the purpose of the study and planned procedures for data collection. This helped to develop trust, discuss with them about the questionnaire, and answer any possible question(s) that may occur during the meeting. This was followed by giving them the questionnaires to be distributed, and explaining to them that the participation in the questionnaire and interviews was voluntary, and teachers had the right to refuse to participate or to withdraw any time during the practical application of questionnaires and focus group discussion. In addition, it was explained that teachers were not required to write their names.

During the collection process, some schools were very efficient and returned most questionnaires after approximately a week or two weeks. However, other schools were very slow and did not return the questionnaire on time. Therefore, follow up phone calls were made to encourage schools who had not returned their questionnaires or part of them to do so as soon as possible. This was done to accelerate the collection procedure and maximize response, and to make sure that schools' administration were involved completely in the process.

After all the questionnaires had been collected, the next process was to identify and eliminate invalid questionnaires. These included questionnaires that were left blank with no answers and others that were only partially answered, whose respondents did not show real interest in this research. The total number of questionnaires that were valid for proceeding with statistical analysis was 490.

6.6.2. The Focus Group Interviews

Before visiting the schools, the researcher checked with the schools' secretaries about the confirmation letter from the Ministry of Education that explained the researcher's work and his plans to distribute a questionnaire and conduct focus group interviews in the sampled schools. Then appointments were made with schools to begin the interview process on specific dates. After meeting with teachers, the researcher began the focus group interviews by introducing himself, the institution he works for, and the current project. After that, he asked the interviewees for permission to record the focus group interviews and obtained the agreement from them to proceed with this. It was essential to use a recording device in this process, since it is difficult to follow every word while listening to respondents' answers.

Next, personal information was obtained from participants, such as their major, the subject they taught, and number of students in their class. This introduction procedure was important before beginning the delivery of questions, since experts (Keats, 2000; Zuckerman 2003) have pointed out that it is important to build a good rapport with the respondents before commencement of the interviews. It was easy through this process to build a good rapport between the researcher and the respondents, even though this was the first time the researcher had talked to the respondents about practical issues.

After the introduction period, the researcher started administering the questions to teachers and making notes about the major points that needed to be explained in more detail. During the interviews, it was important sometimes to restate a specific part of teachers' statements to get more detail about a specific issue and/or to gain more insight about the topic or question of discussions. This procedure is recommended (Wilkinson & Birmingham, 2003) to clarify points made and to extend the conversation around a particular issue. At the end, the researcher thanked all the teachers for their participation in this process and noted that the information obtained from them would have a significant effect on this research.

6.7. <u>Analysis of the Questionnaires</u>

Before proceeding with the main statistical analysis, it was important to examine the data to check for any mistakes, outliers and missing data (McBurney, 2001; Field, 2005) by applying frequency distributions of all variables. It was recognised from the output that there were some missing data. To solve this obstacle, one of the recommended techniques to deal with missing cases is by replacing them with the column (group) mean of that

variable that had missing value (Hinton et al., 2004; de Vaus, 2002). After calculating the

missing values' columns means, therefore, they were replaced with the calculated means.

Then, the next process was to assess the distribution of all variables according to the

normal distribution assumptions that scores from two independent samples are drawn from

normally distributed populations, and that the two independent samples have equal

variances (Howell, 1999; Field, 2005). Testing both assumptions helps in deciding which

test statistics, should be implemented to analyse the research data (Field, 2005).

6.7.1. Assessing the Fulfilment of the Normal Distribution Assumptions

These assumptions were tested through the employment of the following

procedures: First of all, visual inspection was made of all variable distributions through the

construction of histograms to determine the shape of the variables. The histograms showed

that many variables were not normally distributed. Some of them were positively skewed

and others were negatively skewed. A few were approximately normally distributed. To

assess statistically if those variables with non-normal distributions significantly deviated

from normal distribution, the Kolmogorov-Smirnov test was used (Hinton et al., 2004;

Field, 2005). The test is done by:

> *calculating the differences between the observed cumulative distribution and*
> *the theoretical cumulative distribution. The larger the difference, the more*
> *likely the distributions will be different to a normal distribution* (Hinton et
> al., 2004, p.32).

The test values and normality plots for all variables showed statistically significant results

($\alpha < 0.05$), which as a result means that the normality assumption was severely violated. In

fact, Pallant (2001) indicated that such results are common with large sample sizes.

After that, it was essential to assess the next assumption, the homogeneity of

variances, and to do that Levene's test for untransformed raw data was calculated for all

items to test the homogeneity assumption that all items have equal variance in the parent populations (Field, 2005). The test values confirmed that the variance differences of 68 items were not statistically significant ($\alpha > 0.05$), while the differences of 38 items were statistically significant ($\alpha < 0.05$). Both testing procedures, Kolmogorov-Smirnov and Levene's tests, established statistically that the items were not normally distributed and the variances were not equal.

Another method was applied to deal with skewed distributions that might cause the violation of assumptions (Field, 2005). This was done by transforming the raw data using two different methods; natural log and square root transformations. After both transformations, Kolmogorov-Smirnov and Levene's tests were computed again to assess the assumptions. Both test results confirmed that the normality and homogeneity of variance assumptions were also violated, since no major changes had appeared from the transformation procedures. Accordingly, it was confirmed that the homogeneity of variance assumption was not met. Field (2005) indicates that:

> *when the sample size is large, small differences in group variances can produce a levene's test that is significant (because the power of the test is improved)* (p.98).

The last method that was applied to deal with positively and negatively skewed distribution was to recode all variables into new variables with nominal characteristics, since this could help in making the data more asymmetrical to be analysed with parametric tests (Kinnear & Gray, 2004; Glass & Hopkins, 1996). A recommended method to achieve this is by adjusting the cutting points to have fewer categories (de Vaus, 2002; Kinnear & Gray, 2004). This was done by combining similar preferences into one group, and the new variables were recorded into new categorical factors. This technique was presented in the literature (de Vaus, 2002; Pallant, 2001) to aid in dealing with similar situations, and "to

avoid using variables with a lot of categories" (de Vaus, 2002, p.164). According to these recommendations, each five point scale, consequently, was altered to become a three point scale by combining and recoding response categories. All agree and disagree responses in the scale were combined into two main categories.

Then, the variables' distributions were checked again to assess both assumptions by employing Kolmogorov-Smirnov and Levene's tests. The results showed the same characteristics as the original data, since all the items were not normally distributed, and 67 items had equal variances ($\alpha > 0.05$), whereas 39 items had not ($\alpha < 0.05$).

6.7.2. Chi-square Analysis

All prior assessment of normality and homogeneity of variance assumptions proved that these two assumptions were seriously violated, even when transforming of the values was implemented. This means that most of the distributions were not normal and the variances were not equal. When both assumptions are not met, and all variables become nominal in nature, the statistics literature (Kinnear & Gray, 2004; Howitt & Cramer, 2001) suggests that nonparametric tests are the preferable statistics to use, even though they are not as powerful as the parametric tests in identifying differences and relationships between variables (Hinton et al., 2004; Pallant, 2001).

The Chi-square test statistic was calculated to examine the relationship between the independent and dependent variables, given that both variables were nominal in nature (Perry, Brownlow, McMurray, & Cozens, 2004). The Chi-square test compares the differences between the observed counts and the calculated expected counts for any two variables. A large Chi-square value signifies a large difference between the observed and expected counts of the two variables (Kinnear & Gray, 2004). A test of significance was

done to determine if the difference between the two variables was statistically significant. If it was significant ($p < 0.05$), then the conclusion was that the two variables were statistically dependent and vice versa (Brace, Kemp, & Snelgar, 2003).

Fisher's exact test was used instead of Chi-square to examine the value of the relationship for cases where expected cell counts were less than five, since in such cases, Chi-square's assumption of continuous distribution is violated (Hinton et al., 2004; Kinner & Gray, 2004; Perry et al., 2004). Fisher's exact test is considered more powerful to detect any significant differences in these cases (Howitt & Cramer, 2001). Again, the significance level (α) was set at 0.05, so if any calculated (α) value exceeded that hypothesized value ($\alpha=0.05$), the research hypothesis was rejected. Testing the statistical significance of the relationship between variables does not purely imply making a conclusion about the importance of that relationship, if the results were positive. In fact, the main objective behind testing the statistical significance in relationships between variables is that:

> *tests of statistical significance allow us to estimate the likelihood that a relationship between variables in a sample actually exists in the population as opposed to being an illusion due to chance or sampling error* (Babbie, Halley, & Zaino, 2003, p.303).

Using the Chi-square and Fisher's exact usually assists in recognizing any statistically significant relationship between two variables, but does not confirm that this relationship is important and consequential, which is known as substantive significance (Field & Hole, 2003; Babbie et al., 2003). One cause of this phenomenon is that even small differences between groups or low correlations can be statistically significant and could be found in data that came from samples with large sizes (Pallant, 2001; de Vaus, 2002; Babbie et al., 2003). Therefore, an additional statistical test of association is recommended (Kinner & Gray, 2004) to be applied for 2x2 and 3x2 tables to measure the strength of the

relationships being previously determined, and to determine the effect size of that relationship.

6.7.3. Cramer's V Test of Effect Size

There are two main tests of association commonly used to analyse the strength of associations between variables, namely, Phi coefficient and Cramer's V test. The Phi coefficient is obtained by dividing the Chi-square value by the square root of the total frequency as follows;

$$\text{Phi } (\Phi) = \sqrt{\frac{\chi^2}{N}}$$

Cramer's V is based on the square root of Chi-square in addition to the total number of participants (N). To calculate V, the square root of chi square must be computed first and then divided by the quantity N multiplied by (m), which is the smaller of rows -1 or column. The formula is;

$$\text{Cramer's V} = \sqrt{\frac{\chi^2}{(N)(\min. \text{ of } r - 1, c - 1) *}}$$

* (Number of row or number of column, whichever is smaller) (Green et al., 2000, p.347).

For 2x2 tables, it is usually recommended to use Phi coefficient, whilst for 3x2 tables Cramer's V of effect size is the best measure to be applied (Kinner & Gray, 2004). However, other experts (Green et al., 2000) indicate that "for 2x2, 2x3, and 3x2 tables, Phi and Cramer's V are identical" (p.346). Therefore, Cramer's V was the chosen test statistic to interpret the strength of the relationships between factors with various preferences.

The strength of the association depends on the value of the Cramer's V test. Within the range of -1 to +1, this is considered a very strong association. More detail about the

strength of association values and the appropriate interpretation in accordance with these values are provided in Table 6.8. These effect values help to understand the effect values for the same correlations in the targeted population (Green et al., 2000; Field & Hole, 2003). Any statistically significant relationship between two variables even with low effect size means that this effect size is due to large sample size and not the sampling error (de Vaus, 2002). Babbie et al. (2003) suggest that for items with statistically significant relationships and strong effect sizes, "knowledge of independent variable improves prediction of dependent variable and relationship can be generalised from the sample to the population" (p.310). Nevertheless, for statistically significant relationships with weak effect sizes, no meaningful prediction can be gained from understanding the main features of independent variable, but inferences about the relationship between both variables can be generalised to the parent population (Babbie et al., 2003). In addition, for weak associations others (de Vaus, 2002) propose that "it is better to accept that most relationships are weak than to over interpret results" (p.262).

Table 6.8
Interpreting Strength of Association

Strength of Association	Values
None	0.00
Weak/Uninteresting association	±.01 to .09
Moderate/Worth noting	±.10 to .29
Evidence of strong association/Extremely interesting	±.30 to .99
Perfect/Strongest possible association	±1.0

(Source: Babbie et al., 2003, p.258)

6.8.   <u>Analysis of Teachers' Comments</u>

The analysis of teachers' comments in questionnaires and focus group interviews went through different stages. First of all, a coding system was established to differentiate between comments that came from questionnaires and interviews, comments from teachers, male and female, and from students, boys and girls. Table 6.9 shows some of the symbols used to signify the characteristics of the comments' producers. For example, if a comment is followed by these symbols (m-t-v-2-2), it means that the comment came from a male (m) teacher (t) through a focus group interview (v), from school number two (2) and teacher number two (2).

Table 6.9
Symbols Used in Identifying Comment Sources

Symbol	Description
m / f	male / female
t / s	teacher / student
v / q	Comments through the interviews / comments on questionnaires
1st number	school number
2nd number	Participant(s) number
few/a few /majority	The number of the participants in a specific quote

After that, teachers' comments in questionnaires were collected and organised into various categories that corresponded to the questionnaire items and sections, besides some new categories that were important to introduce.

Next, all the focus group interviews were transcribed and summarised into the same categories created previously. This process helped in analysing the various comments from the different groups, and made it easier to combine the different remarks to arrive to a specific conclusion (Wilkinson & Birmingham, 2003).

Finally, results from the teachers' responses on questionnaire items and from their comments on both questionnaires and focus group interviews were presented together in the results chapter to help in analysing and discussing the overall data to reach the main research conclusions.

6.9.   <u>Ethical Considerations and Research Notes</u>

Participants' privacy was an important issue to consider in this research. The introductory letter that was attached to each questionnaire explained the major objectives of the study and explained that all answers from the questionnaire would be kept in a safe place and would not be revealed to others. Because some people believe that giving personal information, especially about work experience, may affect them in some way, many of them refuse to participate in any data collection that requires participants' names (Wilkinson & Birmingham, 2003). The research questionnaire did not ask teachers to provide their names. In fact, it was indicated in the first page of the questionnaire that there was no need for them to write their names. This procedure helps to preserve participants' anonymity and encourages them to participate effectively and confidentially (Wilkinson & Birmingham, 2003; de Vaus, 2001).

It is important to note here that the researcher faced difficulties in gaining access to girls' schools to conduct more interviews with teachers and students. Even though officials at the Ministry of Education sent two letters to all participating secondary schools asking and encouraging them to help the researcher in distributing the questionnaires and conducting the interviews, some girls' schools refused to participate in the focus group interviews.

A further attempt was made by the researcher to save the process by asking some other schools if individual or telephone interviews could be conducted with teachers and students, rather than the focus group interviews, if this was more acceptable to teachers and school administration. Initially, some of these schools agreed to participate in this procedure, but afterwards, they showed no inclination to proceed with interviews. Many follow up telephone calls were made to request these schools to progress with interviews, but unfortunately nobody showed any interest in carrying out any sort of interviews.

On the other hand, it was interesting to find that among the 490 questionnaires, more than 100 contained interesting comments. These informative comments helped the researcher to gain additional insight about assessment practices in schools. Furthermore, some of the comments asserted the importance of this research study, and some teachers expressed interest in being notified about the final conclusions and recommendations of this study. Some respondents praised the researcher for conducting such research on this topic and encouraged him to proceed with this study.

Moreover, the officials in The Higher Council of Education, the Ministry of Education, and some schools' principals showed a higher degree of responsibility and respect for this research and this project. This included facilitating the procedures without routine and smoothing the process by their important directions and instructions to help the researcher in his study. All these indications increased the researcher's interest in this topic and encouraged him during the difficulties he faced within the different processes.

The last thing to conclude here is the importance of providing participants with open-ended questions in the questionnaire ((Wilkinson & Birmingham, 2003). In this study, the design of the questionnaire included some open-ended questions within the sections and at the end of the questionnaire (see Appendix 1, p.341).

Some respondents even provided a whole page of written remarks that were valuable in determining what most concerned teachers and what should be done to alter the current practices in teachers' assessment.

6.10. <u>Conclusion</u>

The main aim of this chapter was to describe the survey design of this study. The research methodology employed the quantitative and qualitative methods together to answer the research questions and identify the main characteristics of teachers' assessment practices in secondary schools in Qatar.

Schools were selected by using proportional stratified random sampling and simple random sampling procedures to ensure that the main sample would be representative of the parent population from both genders and from different regions, capital city and districts. The total number of schools that randomly participated in the study was 18 schools, and the total number of teachers was 490, 189 males and 301 females.

A constructed questionnaire and focus group interviews were the major data gathering instruments applied. The questionnaire comprised d six sections that focussed on different issues attributes related to assessment practices in schools, and each section had a number of items. The majority of items were assessed by using a Likert scale, with some items having 5 preferences from 'not skilled' to 'totally skilled', 'never' to 'always', and 'not useful' to 'essential'. Many procedures were applied to determine the questionnaire's validity and reliability

Finally, the processes of data collection were demonstrated by clarifying the methods employed to administer the questionnaire and conduct the interviews in schools. The questionnaires were analysed by applying various approaches, including assessing

normal distribution assumptions, adjusting cutting points, and using Chi-square, Fisher's exact, and Cramer's V tests to assess cross-tabulation and strength of associations.

The next chapter, data analysis, will focus on presenting the main research findings by analysing the results. This includes displaying the questionnaire results, frequencies and percentages followed by Chi-square and Cramer's V values and ending with teachers' comments on questionnaires and through focus group interviews.

Chapter 7

Data Analysis

7. 1.   <u>**Introduction**</u>

This chapter describes in detail the most important features of the research findings, with particular emphasis on the statistical analysis of the survey data. First of all, the main demographic features of the survey sample are described. This includes teachers' academic qualifications, the major subjects they teach in addition to their years of experience and the number of students in their classes. Such detail are used later to investigate the roles that some of those factors could play in relation to other dependent variables in the study. This in turn may provide insight into the importance of some major factors in the learning process and how they may affect, positively or negatively, teachers' assessment practices in public secondary schools in Qatar.

After explaining the main characteristics of the sample and the participants, a more detailed description will follow concerning the remaining variables that were introduced in the questionnaire. Furthermore, teachers' responses to the different items on the six sections on the questionnaire will be analysed individually. This includes analysis of the data for each section in the questionnaire, with frequencies and percentages for all items. The main reason for doing this is to understand the characteristics of these factors among this sample of teachers.

Next, tests of independence between the independent and dependent variables will be presented to determine the characteristics of the relationship between those variables. Chi-square is the best technique to be used in this analysis, since all variables are nominal.

Besides, Cramer's V test will be employed, whenever the relationship between the variables is significant, to verify the strength of the association between the independent and dependent variables.

Finally, whenever applicable, teachers and students' statements (from questionnaires and focus group discussion) about elements related to assessment practices besides factors that influence teachers' assessment practices will be quoted, to help in explaining the results. The overall data from all these resources may help in drawing valid conclusions about teachers' current applications of assessment in secondary schools in Qatar.

7.2.   **The Main Sample's Characteristics**

The main purpose of this section is to describe the key features of the whole sample. This description will include the total number of public high schools and teachers that were involved in this study, in addition to all participants who took part in answering questionnaire items and focus group interview questions. It is important to note here that all teachers who participated in the focus group interviews were also been involved in answering the questionnaire items, since their schools were also part of the research sample.

7.2.1. **Demographic Features of the Questionnaire Sample**

This part clarifies some major characteristics of secondary school teachers who answered the questionnaire items. As can be seen from Table 7.1, for the academic qualifications, most teachers 395 (80.61%) had Baccalaureate degree, 82 (16.73%) of them had a Licence degree, 9 (1.84%) a Master degree, and 4 (0.82%) a Ph.D. Most teaching subjects were represented in the sample, yet, with different percentages. Table 7.2 shows

teachers' distribution according to subjects taught. It is clear from the figures that 220 teachers, 44.9% of the total sample, taught languages. Other subjects in the sample were Mathematics 16.9%; science 13.1%, Islamic studies 10.2%, Social studies 5.1%, Family education 4.3%, Computer science 2.7%, Research skills 1.6%, and Philosophy and psychology 1.2%.

Table 7.1
Sample Classification According to Academic Qualifications

Degree / Count	Licence	Baccalaureate	Master	Ph.D	Total
Frequency	82	395	9	4	490
Percentage	16.73	80.61	1.84	0.82	100

Table 7.2
Sample Classification According to Subject

Responses / Subjects	Frequency	Percentage
Islamic Studies	50	10.2
Arabic Language	77	15.7
English Language	78	15.9
French Language	65	13.3
Mathematics	83	16.9
Science	64	13.1
Social studies	25	5.1
Family Education	21	4.3
Computer Science	13	2.7
Research skills	8	1.6
Philosophy and psychology	6	1.2
Total	490	100

After that, teachers were asked about their years of experience in teaching their subjects, in addition to the number of students in their classes. It appears from Table 7.3 that the most frequently occurring years of experience category, more than half of the teachers, was teachers who had over 15 years of experience 282 (57.6%), and the least common years of experience category was teachers who had from 1 to 5 years of experience 23 (4.7%). Other category distributions are shown in the table.

Table 7.3

Sample Classification According to Years of Experience

Year Count	1-5	6-10	11-15	Over 15	Total
Frequency	23	80	105	282	490
Percentage	4.7	16.3	21.4	57.6	100

Lastly, Table 7.4 reports the frequencies and percentages associated with the number of students in the classroom. It is clear from the table that most teachers in this sample (248, 50.6%) had between 26 to 31 students in their classes. Furthermore, 161 (32.9%) teachers indicated that they had between 32 to 37 students in their classes and just a few teachers (19, 3.9%) indicated they had fewer than 20 students in their classes.

Table 7.4

Sample Classification According to Number of Students in the Class

No. Count	Less than 20	20-25	26-31	32-37	38 and more	Total
Frequency	19	61	248	161	1	490
Percentage	3.9	12.4	50.6	32.9	2.0	100

7.2.2. Demographic Description of the Interview Sample

Some focus group interviews were employed to investigate teachers' views on their classroom assessment practices in secondary school education. Tables 7.5, 7.6, 7.7, and 7.8 present some demographic characteristics of all participants in these interviews: teachers' academic qualifications, subject taught, years of experiences, and number of students in their classes. First of all, Table 7.5 shows that sixteen teachers held the baccalaureate degree and only one teacher held a Licence. The subjects taught included Islamic studies 4 (23.53%); Arabic language 3 (17.65%); English language 1 (5.88%); Mathematics 3 (17.65%); Science 4 (23.53%); Social studies 1 (5.88%), and Research skills 1 (5.88%). Therefore, it may be concluded that almost half of the participants in the sample were teachers who taught languages (see Table 7.6).

Table 7.5
Distribution of Teachers Interviewed by Qualifications

Degree / Count	License	Baccalaureate	Master	Ph.D	Total
Frequency	1	16	-	-	17
Percentage	5.9	94.1	-	-	100

Table 7.6
Teachers Interviewed by Subject Taught

Subjects / Responses	Frequency	Percentage
Islamic Studies	4	23.53
Arabic Language	3	17.65
English Language	1	5.88
Mathematics	3	17.65
Science	4	23.53
Social studies	1	5.88
Research skills	1	5.88
Total	17	100

Table 7.7 presents teachers' years of experience and it appears from the table that nine teachers had over fifteen years of teaching experience, six participants had between eleven to fifteen years, and two teachers had between six to ten years of teaching experience. For the number of students in the classroom, Table 7.8 indicates that most teachers 15 (88.2%) had between 32 and 37 students in their classes, while the remaining participants 2 (11.8%) had between 26 and 31 students in their classes.

Table 7.7
Teachers Interviewed by Years of Experience

Year / Count	1-5	6-10	11-15	Over 15	Total
Frequency	-	2	6	9	17
Percentage	-	11.8	35.3	52.9	100

Table 7.8
Number of Students in the Class

No. / Count	Less than 20	20-25	26-31	32-37	38 and more	Total
Frequency	-	-	2	15	-	17
Percentage	-	-	11.8	88.2	-	100

7.3.   <u>The Main Data Analysis</u>

The analyses of the survey data from both the questionnaires and the focus group interviews will be presented in this section. Each section of the questionnaire will be analysed separately. This process will start by introducing tables that include frequencies and percentages for every section in the questionnaire. These figures represent teachers' responses to each item in a specific section. This will help in providing some general information about the distribution of participants' responses in each category of the dependent variables. After that, values of Chi-square test of independence and Cramer's V measures of association will be presented to assess the relationships between the independent and dependent variables and, whenever applicable, the strength of the association between these variables. This will help in determining the affects of those independent variables on teachers' responses to items and aid in generating conclusions about these effects. Finally, teachers and students' comments on the questionnaires and the focus group interviews will be presented, whenever it is applicable, to help in drawing the overall picture about teachers' assessment practices in secondary schools in Qatar.

Before beginning the analysis process, modifications were made to the categories of two independent variables. First of all, the eleven categories of Teachers' subjects were combined into three different categories;

1. Social Sciences (SS.): this category consists of Islamic Studies, Social Studies, Family Education, Research Skills, Philosophy and Psychology.

2. Languages (L.): this includes Arabic, English, and French Languages.

3. Mathematics and sciences (M/S.): this comprises Mathematics, Applied Sciences, and Computer Science.

Moreover, the categories of numbers of students in the class were modified to become three categories, as follows:

1. < 20 and 20-25 students per class were combined to become ≤ 25;

2. From 26-31 students was kept the same;

3. 32-37 and 38 and over were combined to become ≥32

The next section will present some aspects regarding teachers' perception of their skills with the different assessment techniques, the traditional test item forms and the alternative assessment methods. This is followed by examining the significant differences in teachers' responses with regard to the main independent variables, such as their gender, subjects, and years of experience.

7.3.1. Teachers' Skill Perception with the Different Assessment Techniques

Table 7.10A shows participants' responses for the three categories, not skilled, do not know, and skilled. From inspecting the table it may be realised that the majority of teachers believed they possessed the required skills in the different test item forms, especially in true/false questions 449 (91.6%), multiple-choice questions 445 (90.8%), completion of sentence questions 442 (90.2%), closed-ended essay questions 441 (90%), and open-ended essay questions (398, 81.2%). In addition, the teachers claimed to be skilled in matching questions and re-arrangement questions, but with lower frequencies and percentages, 367 (74.9%) and 366 (74.4%), respectively. On the other hand, a number of teachers believed they were not skilled with drawing questions 108 (22%), re-arrangement questions 66 (13.5%), matching questions 60 (12.2%), and open-ended essay questions 53 (10.8%). In fact, these forms received the highest number of "not-skilled" responses of all test forms.

Table 7.10A
Teachers' Skill Perception with Traditional Test Forms

Responses / Variables	Not skilled		Do not know		Skilled		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Completion of sentence questions	38	7.8	10	2.0	442	90.2	490	100
Multiple-choice questions	33	6.7	12	2.4	445	90.8	490	100
True / False questions	28	5.7	13	2.7	449	91.6	490	100
Matching questions	60	12.2	63	12.9	367	74.9	490	100
Closed-ended essay questions	26	5.3	23	4.7	441	90.0	490	100
Open-ended essay questions	53	10.8	39	8.0	398	81.2	490	100
Re-arrangement questions	66	13.5	58	11.8	366	74.7	490	100
Drawing questions	108	22.0	95	19.4	287	58.6	490	100

There are other types of assessment rather than paper-pencil tests that need to be applied to measure students' achievement. These alternative methods require more interaction between teachers and students to understand their abilities and to give them the required feedback about their performance and achievement. Among these techniques are interviews, oral questioning, discussion, and classroom observation. Other methods, such as students' self and peer assessment are regarded as part of formative assessments that involve learners in the assessment process. Table 7.10B contains frequencies and percentages for teachers' responses to questions as to their skills with these kinds of assessment procedures. As it appears from the table, the findings indicate that the majority of teachers who considered they had the required skills in most of the alternative assessment forms. The highest frequencies of participants' positive "skilled" responses were for classroom discussion 460 (93.9%), classroom observation 434 (88.6%), assessing

students' individual activities 411 (83.9%), and oral questioning 398 (81.2%). Furthermore, large numbers of teachers also considered themselves skilled with assessing students' group activities 388 (79.2%) and individual interviews with students 349 (71.2%). In contrast, the remaining assessment forms, i.e. students' self-assessment, assessing students' presentation skills, and students' peer-assessment had variable frequencies with 338 (69%), 337 (68.8%), and 254 (51.8), respectively. For the number of teachers who considered themselves not skilled in these forms, the frequencies and percentages were as follows: 70 (14.35) for students' self-assessment, 65 (13.3%) for assessing students' presentation skills and 106 (21.6%) for students' peer-assessment.

Table 7.10B
Teachers' Skill Perception with Other Assessment Methods

Responses / Variables	Not skilled		Do not know		Skilled		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Classroom discussion	20	4.1	10	2.0	460	93.9	490	100
Classroom observation	27	5.5	29	5.9	434	88.6	490	100
Individual interviews with students	77	15.7	64	13.1	349	71.2	490	100
Assessing students' individual activities	47	9.6	32	6.5	411	83.9	490	100
Assessing students' group activities	66	13.5	36	7.3	388	79.2	490	100
Oral questioning of students	43	8.8	49	10.0	398	81.2	490	100
Assessing students' presentation skills	65	13.3	88	18.0	337	68.8	490	100
Students' self-assessment	70	14.3	82	16.7	338	69.0	490	100
Students' peer-assessment	106	21.6	130	26.5	254	51.8	490	100

7.3.1.1. The Relationship between Teachers' Skill Perception and Other Variables

It was important to assess whether teachers' skill perception with the different assessment methods differs according to their gender, subjects they teach, and their years of experience. To assess the relationship between those variables and skill perception, the Chi-square test statistic was applied. In addition, Pearson's Chi-square values or Fisher's exact test values, whenever applicable, were used to test the independence between variables. Chi-square helps to assess whether the discrepancies between the observed and expected values within the different categories are bigger than one might expect by chance. Furthermore, whenever the Chi-square test shows a significant result, Cramer's V test of association between variables is employed to assess the strength of the relationship between the variables. The results of all tests are presented in the tables.

7.3.1.1.1. Teachers' Gender

The Chi-square test of independence was used to assess the relationship between teachers' gender and their skill perception with the informal assessment procedures. Teachers' gender and their skill perception with three assessment forms were not independent. These forms were interviews (χ^2=13.463, DF=2, p=0.001), students' self-assessment (χ^2=13.555, DF=2, p=0.001), and students' peer-assessment (χ^2=9.764, DF=2, p=0.008). The differences between male and female teachers' responses in these four assessment techniques were statistically significant. The numbers of female teachers who considered themselves skilled in these specific forms (198, 191, and 142) were statistically higher than those of males (151, 147, and 112), respectively. For all the remaining formal

and informal assessment forms, however, the differences in male and female teachers' responses were the same, since no significant results were found throughout the analyses.

Since the Chi-square test for the three variables showed a statistically significant relationship, it was important to examine the strength of the association between the independent and dependent variables. Since both variables were nominal in nature, Cramer's V test of association was the appropriate test statistic to employ to assess the strength of this relationship between the variables. The relationship between gender and each of the three variables was as follows; individual interviews (C=.166, DF=2, p=0.001), students' self-assessment (C=.166, DF=2, p=0.001), and students' peer-assessment (C=.141, DF=2, p=0.008). The results from Cramer's' V test of association demonstrated that the relationships between teachers' gender and their skill perception with those four variables were moderate.

7.3.1.1.2. Teachers' Subjects

Table 7.10C shows Chi-square tests for all assessment methods according to teachers' gender and their skill perception. From the figures, it is clear that teachers' subjects and their skill perception with the different assessments were not independent for six assessment forms. Three of these were formal test items, multiple-choice, true/false, and drawing questions, while the remaining three were informal procedures. In addition, for multiple-choice and drawing questions, the number of teachers of mathematics and sciences who indicated they were skilled in these two forms was higher than for social studies and language teachers. However, for the other four techniques, the number of teachers of languages who claimed to be skilled was statistically higher than for the other subjects.

195

Table 7.10C
Teachers' Subjects and their Skill Perception with Different Assessment Techniques

Responses / Variables	Subject	Not skilled		Do not know		Skilled		χ^2 / p	C / p
		F.	%	F.	%	F.	%		
Traditional test forms									
Multiple-choice questions	S.S.	19	11.9	7	4.4	134	83.8	14.994 .004	.124 .004
	L.	5	3.1	2	1.2	154	95.7		
	M/S.	9	5.3	3	1.8	157	92.9		
True/false questions	S.S.	13	8.1	3	1.9	144	90.0	12.928 .010	.115 .010
	L.	4	2.5	1	0.6	156	96.9		
	M/S.	11	6.5	9	5.3	149	88.2		
Drawing questions	S.S.	48	30.0	35	21.9	77	48.1	42.097 .000	.207 .000
	L.	41	25.5	42	26.1	78	48.4		
	M/S.	19	11.2	18	10.7	132	78.1		
Other assessment methods									
Classroom observation	S.S.	16	10.0	10	6.3	134	83.8	16.064 .003	.128 .003
	L.	4	2.5	4	2.5	153	95.0		
	M/S.	7	4.1	15	8.9	147	87.0		
Oral questioning of students	S.S.	20	12.5	19	11.9	121	75.6	27.554 .000	.168 .000
	L.	1	0.6	9	5.6	151	93.8		
	M/S.	22	13.0	21	12.4	126	74.6		
Assessing students' presentation skills	S.S.	30	18.8	26	16.3	104	65.0	9.909 .042	.101 .042
	L.	12	7.5	28	17.4	121	75.2		
	M/S.	23	13.6	34	20.1	112	66.3		

7.3.1.1.3. Teachers' Years of Experience

Testing the independence between teachers' years of experience and their skill perception with the different assessment methods was also important. Tables 7.10D (p.198) and 7.10E (p.199) show the results for all tests. The figures confirmed that Chi-square test of independence for most assessment methods, formal and informal, were statistically significant. It is appropriate to conclude that the two variables are not independent, and there is some sort of relationship between the variables. The tables show that for six formal test forms and eight informal assessment procedures, the number of teachers with over 15 years of experience who believed they were skilled was statistically higher than for teachers with less years of experience. The differences between the observed and expected counts for those 14 methods were high enough to give high Chi-square test values for all of them. Therefore, the probability values for the same items were less than .05.

However, even though more teachers with over 15 years of experience perceived themselves as skilled compared to other categories, there were still some teachers from this category who indicated the same skill perception as other teachers with fewer years of experience. Therefore, a few assessment forms did not show any significant differences between the three different categories of teachers' years of experience. Besides, it appears from table 7.10G that fewer teachers with over 15 years of experience believed they were skilled with students' self and peer assessments, although their number was higher than any other group. Besides, another remarkable number of teachers from the same category indicated they were not skilled with two new types of assessment forms, self and peer assessments. The Cramer's V tests of the association for the significant results showed that the relationships between the variables were only low, since no probability value exceeded .20.

Table 7.10D

Teachers' Years of Experience and their Skill Perception with Traditional Test Forms

Variables / Responses	Year of Exp.	Not skilled		Do not know		Skilled		χ^2 p	C p
		F.	%	F.	%	F.	%		
Completion of sentence questions	1-5	6	26.1	0	0.0	17	73.9	12.694	.126
	6-10	8	10.0	3	3.8	69	86.3	.029	.024
	11-15	9	8.6	2	1.9	94	89.5		
	> 15	15	5.3	5	1.8	262	92.9		
Multiple-choice questions	1-5	6	26.1	0	0.0	17	73.9	16.743	.148
	6-10	9	11.3	3	3.8	68	85.0	.005	.004
	11-15	5	4.8	4	3.8	96	91.4		
	> 15	13	4.6	5	1.8	264	93.6		
True/false questions	1-5	6	26.1	1	4.3	16	69.6	14.136	.145
	6-10	3	3.8	1	1.3	76	95.0	.016	.005
	11-15	4	3.8	4	3.8	97	92.4		
	> 15	15	5.3	7	2.5	260	92.2		
Matching questions	1-5	5	21.7	6	26.1	12	52.2	13.931	.119
	6-10	15	18.8	12	15.0	53	66.3	.025	.032
	11-15	14	13.3	13	12.4	78	74.3		
	> 15	26	9.2	32	11.3	224	79.4		
Closed-ended questions	1-5	3	13.0	5	21.7	15	65.2	18.350	.155
	6-10	6	7.5	2	2.5	72	90.0	.003	.002
	11-15	6	5.7	7	6.7	92	87.6		
	> 15	11	3.9	9	3.2	262	92.9		
Open-ended questions	1-5	6	26.1	4	17.4	13	56.5	17.815	.138
	6-10	13	16.3	6	7.5	61	76.3	.005	.005
	11-15	10	9.5	13	12.4	82	78.1		
	> 15	24	8.5	16	5.7	242	85.8		

Table 7.10E

Teachers' Years of Experience and their Skill Perception with Other Assessment Methods

Responses / Variables	Year of Exp.	Not skilled		Do not know		Skilled		χ^2 / p	C / p
		F.	%	F.	%	F.	%		
Classroom discussion	1-5	2	8.7	0	0.0	21	91.3	14.962 .010	.130 .018
	6-10	8	10.0	4	5.0	68	85.0		
	11-15	3	2.9	3	2.9	99	94.3		
	> 15	7	2.5	3	1.1	272	96.5		
Classroom observation	1-5	4	17.4	1	4.3	18	78.3	15.779 .009	.131 .013
	6-10	9	11.3	6	7.5	65	81.3		
	11-15	1	1.0	7	6.7	97	92.4		
	> 15	13	4.6	15	5.3	254	90.1		
Individual interviews with students	1-5	7	30.4	5	21.7	11	47.8	15.426 .014	.125 .019
	6-10	17	21.3	12	15.0	51	63.8		
	11-15	15	14.3	19	18.1	71	67.6		
	> 15	38	13.5	28	9.9	216	76.6		
Assessing students' individual activities	1-5	4	17.4	3	13.0	16	69.6	15.033 .014	.119 .032
	6-10	10	12.5	8	10.0	62	77.5		
	11-15	10	9.5	11	10.5	84	80.0		
	> 15	23	8.2	10	3.5	249	88.3		
Assessing students' group activities	1-5	8	34.8	6	26.1	9	39.1	25.965 .000	.175 .000
	6-10	13	16.3	6	7.5	61	76.3		
	11-15	11	10.5	11	10.5	83	79.0		
	> 15	34	12.1	13	4.6	235	83.3		
Oral questioning	1-5	5	21.7	5	21.7	13	56.5	21.619 .001	.151 .001
	6-10	9	11.3	8	10.0	63	78.8		
	11-15	10	9.5	18	17.1	77	73.3		
	> 15	19	6.7	18	6.4	245	86.9		
Students' self assessment	1-5	4	17.4	4	17.4	15	65.2	13.535 .031	.117 .036
	6-10	18	22.5	16	20.0	46	57.5		
	11-15	15	14.3	24	22.9	66	62.9		
	> 15	33	11.7	38	13.5	211	74.8		
Students' peer assessment	1-5	5	21.7	8	34.8	10	43.5	14.123 .026	.119 .031
	6-10	20	25.0	30	37.5	30	37.5		
	11-15	18	17.1	32	30.5	55	52.4		
	> 15	63	22.3	60	21.3	159	56.4		

7.3.2. **Teachers' Frequency of Application of the Different Assessment Techniques**

After assessing teachers' perceptions of their skill with different assessment methods, the next essential step in the analysis is to measure the frequency of application of these different types of methods in classroom settings. This section will focus on teachers' current assessment practices in relation to their application of traditional test item forms, such as multiple-choice, true/false, open-ended essays and completion of sentence questions. Besides, the section will include an additional analysis of teachers' responses concerning their implementation of alternative assessment methods, for instance weekly and monthly tests, oral questioning, individual interviews with students, and assessing individual and group activities.

Table 7.11A contains the response frequencies and percentages. It appears from this table that among the 490 teachers who participated in the study, large numbers said they always applied traditional forms, for instance, multiple-choice 387 (79%), closed-ended essays 355 (72.4%), completion of sentences 322 (65.7%) and true/false questions 317 (64.7%). In addition, many teachers reported that they sometimes applied these forms, such as matching questions 149 (30.4%), completion of sentence questions 127 (25.9%), and true/false questions 102 (20.8%). In contrast, 217 (44.3%) and 173 (35.3%) said they never applied drawing questions and re-arrangement questions in their formal tests. In addition, 142 (29%) and 109 (22.2%) indicated they never applied open-ended essays and matching questions.

For the other assessment methods, however, the main focus is to describe teachers' perceived frequency of application of other major forms of assessment, such as interviews, individual and group activities, students' self and peer assessments. These sorts of measures are formative in nature, and may help in providing learners with immediate feedback,

whenever teachers have the authority to do that, regarding their actual achievement. It is evident from Table 7.11B that teachers' responses regarding application of the various types of forms were different from one form to another. It seems from the figures that students' peer-assessment, students' self-assessment, and oral questioning were never used by a substantial proportion of teachers, since 220 (44.9%), 138 (28.2%), and 115 (23.5%) respectively reported that they never employed these forms. In addition, some of them 135 (27.6%), 127 (25.9%), and 95 (19.4%) respectively said they sometimes used these forms in their classroom assessment practices. On the other hand, there were some forms of assessment which large number of teachers reported always applied: discussion 456 (93.1%), observation 416 (84.9%), assignments 383 (78.2%), homework 381 (77.8%), monthly short tests 367 (74.9%), recording students' participation 361 (73.7%) and individual activities 347 (70.8%).

Table 7.11A
Frequency of Application of Traditional Test Forms

Responses / Variables	Never		Sometimes		Always		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Completion of sentence questions	41	8.4	127	25.9	322	65.7	490	100
Multiple-choice questions	27	5.5	76	15.5	387	79.0	490	100
True/False questions	71	14.5	102	20.8	317	64.7	490	100
Matching questions	109	22.2	149	30.4	232	47.3	490	100
Closed-ended essay questions	41	8.4	94	19.2	355	72.4	490	100
Open-ended essay questions	142	29.0	98	20.0	250	51.0	490	100
Re-arrangement questions	173	35.3	148	30.2	169	34.5	490	100
Drawing questions	217	44.3	99	20.2	174	35.5	490	100

Table 7.11B
Frequency of Application of other Assessment Methods

Responses / Variables	Never		Sometimes		Always		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Weekly short tests	79	16.1	107	21.8	304	62.0	490	100
Monthly short tests	44	9.0	79	16.1	367	74.9	490	100
Homework	30	6.1	79	16.1	381	77.8	490	100
Classroom assignments	26	5.3	81	16.5	383	78.2	490	100
Classroom discussion	9	1.8	25	5.1	456	93.1	490	100
Classroom observation	17	3.5	57	11.6	416	84.9	490	100
Individual interviews with students	96	19.6	206	42.0	188	38.4	490	100
Assessing students' individual activities	34	6.9	109	22.2	347	70.8	490	100
Assessing students' group activities	76	15.5	120	24.5	294	60.0	490	100
Oral questioning of students	115	23.5	95	19.4	280	57.1	490	100
Recording students' participation in the classroom	41	8.4	88	18.0	361	73.7	490	100
Students' self-assessment	138	28.2	127	25.9	225	45.9	490	100
Students peer-assessment	220	44.9	135	27.6	135	27.6	490	100

7.3.2.1. **The Relation between Teachers' Application and Other Variables**

After assessing teachers' perceived frequency of application of the different assessment techniques, it is essential to test whether or not there are relationships between teachers' application of the different assessment methods and other major independent variables in the study. The following sections will present the relationships with teachers' gender, subjects, years of experience, and number of students in the class.

7.3.2.1.1. **Teachers' Gender**

Regarding teachers' frequency of application of the different assessment techniques and their gender, some significant results for particular assessment methods were found, which confirms that these two variables are not independent. Table 7.11C shows that for the traditional test forms, multiple-choice questions was the only form of assessment for which responses indicated significant differences between male and female teachers. The Chi-square probability value (χ^2=6.048, *DF*=2, *p*=0.047) for this item was less than .05. In addition, the number of female teachers who claimed they always (227) applied multiple-choice questions in their tests was significantly higher than that of male teachers (160).

However, for the alternative assessment methods, the results showed a different trend in comparison with the previous results. It appears from Table 7.11C that for six assessment forms, the differences between male and female teachers were statistically significant. These forms were weekly short tests, monthly short tests, homework, individual interviews, oral questioning, and students' peer-assessment. For weekly and monthly short tests, homework and oral questioning, the numbers of female teachers who indicated they always applied these forms were significantly higher than those of male teachers. In addition, the number of female teachers who indicated they sometimes applied individual

interviews with students was statistically higher than that of males. However, the number of

female teachers who never used students' peer assessment in their classroom practices was

higher than that of males. For the remaining assessment techniques, formal and informal,

no significant differences were found between male and female teachers' responses.

Table 7.11C
Teachers' Gender and their Frequent Application of Assessments

Responses / Variables	Gender	Never		Sometimes		Always		χ^2 / p	C / p
		F.	%	F.	%	F.	%		
Traditional test forms									
Multiple-choice questions	M	7	1.4	22	4.5	160	32.7	6.048	.111
	F	20	4.1	54	11.0	227	46.3	.049	.049
Other assessment methods									
Weekly short tests	M	31	6.3	60	12.2	98	20.0	18.999	.197
	F	48	9.8	47	9.6	206	42.0	.000	.000
Monthly short tests	M	13	2.7	44	9.0	132	26.9	12.341	.159
	F	31	6.3	35	7.1	235	48.0	.002	.002
Homework	M	4	0.8	32	6.5	153	31.2	8.594	.132
	F	26	5.3	47	9.6	228	46.5	.014	.014
Individual interviews with students	M	22	4.5	78	15.9	89	18.2	16.074	.181
	F	74	15.1	128	26.1	99	20.2	.000	.000
Oral questioning	M	27	5.5	35	7.1	127	25.9	16.618	.184
	F	88	18.0	60	12.2	153	31.2	.000	.000
Students' peer-assessment	M	70	14.3	58	11.8	61	12.4	7.826	.126
	F	150	30.6	77	15.7	74	15.1	.020	.020

7.3.2.1.2. Teachers' Years of Experience

Other significant results were found in testing the relationship between teachers'

year of experience and their frequency of application of the different assessments. The Chi-

square tests outcomes confirmed significance levels in three assessment methods; two

traditional test forms, closed-ended questions (χ^2=13.603, DF=6, p=0.029) and open-ended

questions (χ^2=14.259, DF=6, p=0.025), and one of the other assessment forms, oral

questioning (χ^2=15.923, DF=6, p=0.013). The number of teachers with over 15 years of

experience who always applied those three methods (215, 157, 179) was higher than that of

teachers from the other groups. For the remaining assessment methods, no significant

204

results were identified through the analyses. The strength of the associations between the variables for the three forms were moderate ($C1$=.122), ($C2$=.124), and ($C3$=.126).

7.3.2.1.3. Teachers' Subjects

Teachers' subjects and their frequency of application of assessment showed significant relationships, as displayed in Table 7.11D. The significant results were distributed differently between two main categories: Language subjects and Math/Sciences subjects.

First of all, for teachers of languages, the number of teachers who always applied true/false questions, open-ended questions, re-arrangement questions, assessing students' group activities, and oral questioning were higher than those of other categories. However, the number of Mathematics and Sciences teachers who always applied the other test forms and assessment methods was higher than those of other subjects.

The figures also showed that a notable number of Mathematics and Sciences teachers 50 (29.6%), 72 (42.6%), 72 (42.6%), 35 (20.7%) and 53 (31.4%) indicated they never used true/false questions, open-ended questions, re-arrangement questions, drawing questions, and oral questioning. In addition, a number of teachers of Social Sciences subjects reported they never employed some assessment forms in their evaluation, such as open-ended questions 40 (25.0%), re-arrangement questions 65 (40.6%), drawing questions 83 (51.9%), and oral questioning 40 (25.0%). Finally, some Languages teachers signified they never used re-arrangement questions (36, 22.4%) and drawing questions 99 (61.5%) in their assessment of students' academic progress. Even though the number of teachers from different subjects who said they never employed specific assessment forms were not large,

those indicators may reflect the differences in teachers' practices according to the subjects

they teach.

Table 7.11D
Teachers' Subjects and their Frequent Application of Assessments

Responses / Variables	Subjects	Never		Sometimes		Always		χ^2 / p	C / p
		F.	%	F.	%	F.	%		
Traditional test forms									
Completion of sentence questions	S.S.	26	16.3	39	24.4	95	59.4	20.186 .000	.144 .000
	L.	5	3.1	43	26.7	113	70.2		
	M/S.	10	5.9	45	26.6	114	67.5		
Multiple-choice questions	S.S.	18	11.3	32	20.0	110	68.8	23.208 .000	.154 .000
	L.	1	0.6	23	14.3	137	85.1		
	M/.S.	8	5.5	21	12.4	140	82.8		
True/false questions	S.S.	16	10.0	31	19.4	113	70.6	53.386 .000	.233 .000
	L.	5	3.1	35	21.7	121	75.2		
	M/.S.	50	29.6	36	21.3	83	49.1		
Open-ended questions	S.S.	40	25.0	26	16.3	94	58.8	30.628 .000	.177 .000
	L.	30	18.6	36	22.4	95	59.0		
	M/S.	72	42.6	36	21.3	61	36.1		
Re-arrangement questions	S.S.	65	40.6	36	22.5	59	36.9	22.646 .000	.152 .000
	L.	36	22.4	59	36.6	66	41.0		
	M/.S.	72	42.6	53	31.4	44	26.0		
Drawing questions	S.S.	83	51.9	28	17.5	49	30.6	68.012 .000	.263 .000
	L.	99	61.5	31	19.3	31	19.3		
	M/.S.	35	20.7	40	23.7	94	55.6		
Other assessment methods									
Monthly short tests	S.S.	27	16.9	26	16.3	107	66.9	19.120 .001	.140 .001
	L.	7	4.3	28	17.4	126	78.3		
	M/.S.	10	5.9	25	14.8	134	79.3		
Homework	S.S.	21	13.1	25	15.6	114	71.3	23.322 .000	.154 .000
	L.	7	4.3	30	18.6	124	77.0		
	M/.S.	2	1.2	24	14.2	143	84.6		
Classroom assignments	S.S.	16	10.0	29	18.1	115	71.9	14.274 .006	.121 .006
	L.	5	3.1	31	19.3	125	77.6		
	M/.S.	5	3.0	21	12.4	143	84.6		
Assessing students' group activities	S.S.	28	17.5	36	22.5	96	60.0	10.425 .034	.103 .034
	L.	15	9.3	37	23.0	109	67.7		
	M/.S.	33	19.5	47	27.8	89	52.7		
Oral questioning	S.S.	40	25.0	28	17.5	92	57.5	20.944 .000	.146 .000
	L.	22	13.7	28	17.4	111	68.9		
	M/.S.	53	31.4	39	23.1	77	45.6		

7.3.2.1.4.　　　Number of Students in the Class

The number of students in the class was the last variable used to assess its relationship with teachers' frequent application of various assessments. The results showed that monthly short tests (χ^2=13.003, *DF*=4, *p*=0.011), homework (χ^2=13.624, *DF*=4, *p*=0.008), oral questioning (χ^2=12.158, *DF*=4, *p*=0.016), and students' self-assessment (χ^2=11.007, *DF*=4, *p*=0.026) were the only assessment procedures that demonstrated significant indicators according to the number of students in the class. Furthermore, the number of teachers with between 26 and 31 students in the class who indicated they always used monthly short tests 179 (72.2%), homework 204 (82.3%), oral questioning 140 (56.5%), and students' self-assessment 115 (46.4%) in their assessment practices were statistically higher than those of teachers with different number of students in the class.

It was also evident that large numbers of teachers who had between 26 and 31 students in the classroom said they never applied oral questioning 61 (24.6%) and students' self assessment 80 (32.3%) in their evaluation practices. In addition, teachers with ≥ 32 students in the classroom also indicated that they never applied oral questioning 46 (28.4%) and students' self assessment 44 (27.2%) in their assessment of students' academic attainment. Cramer's V test values for the four factors (*C*1=.115), (*C*2=.118), and (*C*3=.111), and (*C*4=.106) confirmed moderate association significance levels between the number of students and teachers' frequent application of assessments.

7.3.2.2. Comments Regarding Teachers' Frequency of Application of Assessments

Many comments concerning the use of the different assessment methods in schools were provided by some teachers, either through their written comments on the questionnaire or orally in the focus group interviews. Comments representative of the main emerging themes, suggestions and/or conclusions will be quoted in this section.

Teachers applied different assessment methods in a variety of ways. One of the teachers described, through her comment in the questionnaire, her comprehensive way of assessing her students' achievement. She included more than one assessment form and used different methods to measure her students' progress:

> *some of the methods I pursue to assess students' attainment are; daily, weekly, and monthly tests and quizzes, a portfolio that reflects the performance level and helps to do self assessment and improve and develop her abilities, presentations, classroom observation, following modern teaching methods, for instance a student-oriented approach that helps the learner to understand her ability to find a piece of information and assess herself in addition to comparing her performance before and after (pre and post tests), following some strategies in cooperative learning that allow the learner to assess herself and their peers within the group. (f-t-q-15-1)*

Another teacher explained his way of encouraging his students to gain knowledge through practical exercises rather than traditional work, and his method of assessing their work:

> *I'm against giving additional work to students, since I could ask some students to collect some detail about a specific issue. After that, I may request them to write a report about what they have done and analyse their work and question them about it. (m-t-v-2-2)*

In addition, oral questioning, classroom discussion and individual interviews were the other types of procedures some teachers employed in their assessment practices:

> *most of my lessons I encourage students to participate in classroom activities by oral questioning, group work, and direct conversation with students.   (f-t-v-4)*

encourage learners to participate effectively in the classroom discussion.
(m-t-q-3-2)

Many teachers explained that it is possible to use different assessment forms other than tests to evaluate learners' achievement of the intended skills and abilities. This may include writing research papers that require learners to use the school library. Other activities and assignments include guiding students to get the information from different sources through summarising books and projects:

> *I am not supposed to keep writing on the board all the time to explain the lesson to students, but I can send the students to the school library to get the information. (m-t-v-2-2)*

Involving students in projects that require specific activities and lead to writing reports and evaluating these practices is another possible form of assessment that one teacher believed can be used to assess students' comprehension of research and project skills:

> *writing a research paper and summarizing a specific book in addition to other practices could be other tasks that students may perform to obtain marks.   (m-t-v-2-2)*

Some teachers explained the rationale behind the use of individual interviews with students as another assessment form:

> *sometimes I use interviews to discover the reasons behind some learners' low marks on tests. On other occasions, I feel that a specific learner needs more help in explaining a topic; therefore I meet with the learner to understand her needs and to give her the assistance she seeks. (f-t-v-5)*

Teachers' implementation of some new forms of assessment techniques, such as students' self and peer assessment, was also reported by some students:

> *some teachers may let us assess ourselves on exercises and give us a mark for this activity. (m-s-v-2-3)*

On the other hand, some teachers believed that the current assessment plans depended on

traditional testing techniques that did not take into account recent developments in the

educational measurement and assessment strategies and assessed surface learning:

> *some of the assessment procedures that are used to measure students'*
> *achievement are done in an out dated manner. (f-t-v-1-4)*

> *the current assessment is restricted to old methods, since teachers are*
> *underprovided with modern assessment techniques. The assessment is still*
> *done through writing without using other tools, such as giving a speech for*
> *5 minutes, performing plays, and using real life situations. There are no*
> *assessment instruments that rely on active movement. The learner is*
> *assessed while he/she is quietly seated without any motion, and any move*
> *he/she makes may be punished. I call for a revolution against the old*
> *techniques to get going with other active methods. (f-t-q-12-1)*

Another teacher described this method as a habitual obligation that teachers must apply

without any effort to change it:

> *the current assessment plan is a routine process that teachers should follow.*
> *(m-t-v-1-2)*

Revising the current assessment procedures for possible modifications is one of the

important actions that should be taken, according to many teachers:

> *the assessment methods should be considered for revision, as the students*
> *study to pass exams without focusing on learning itself. (f-t-q-1-3)*

> *implementing a comprehensive assessment procedure that includes*
> *creativity, activities, analysis, structure, explanation of phenomenon and*
> *scientific topic in addition to students' follow up with latest development in*
> *different subjects through their research and rational scientific thinking, in*
> *line with developments in life.   (f-t-q-18-1)*

Furthermore, teachers believed that changes should be made in the educational

measurement, since many developments have already been made in educational thinking

and teaching methods:

> *I consider that modern assessment methods should be pursued, concomitant*
> *with modern development. (m-t-q-5-1)*

One of the recommendations that some teachers suggested was to execute new assessment strategies that involve more than one evaluation form:

> *use a variety of techniques in school assessment. (m-t-q-2-2)*

> *there are some other good and multi-range techniques, but there are no instructions to use them in high school exams. For that reason, teachers cannot employ those methods during the school year and carry on applying past test forms. (f-t-q-12-2)*

A few teachers suggested continuous assessment as one possible strategy that can be used to evaluate students' achievement. Some teachers thought that it is impossible to give a valid analysis of students' current performance level without any indications of achievement, such as marks. This, according to a few teachers, could be a serious matter when parents ask teachers about their children's learning progress, and therefore it is essential to use continuous testing as an indicator of attainment:

> *sometimes I personally feel embarrassed when a parent comes to me to ask about his son. His son could be quiet in class with no participation in activities all through the year, or he might be excellent and smart. However, because I do not have continuous assessment and no regular tests I cannot assess the student precisely, and this is one of the problems we face with parents. Therefore, if there were continuous tests and frequent quizzes, I might have an idea about the learner, whether he is good and keeps on working. (m-t-v-3- a few)*

When it comes to the application of continuous testing in Qatar's secondary schools, one of the teachers confirmed that this measure is in fact currently being used in schools:

> *continuous assessment is commonly used for students' activities and exercise. (m-t-q-9-5)*

However, other comments from teachers showed that continuous assessment is not employed in the current plans, although they agreed that this type of evaluation is important in learners' learning progression.

Most of the teachers who commented on this particular issue recommended the implementation of continuous testing as part of any future assessment plans, since they believed it could have positive consequences on students' academic performance. Furthermore, a majority of teachers argued that this would help students to study effectively for their frequent tests, which as a result would keep students' attention on their studies throughout the year.

> *if there is continuous testing students are likely to be under pressure to study all the time, but if there is just one exam during the school year they may wait until the end of the year to revise for that specific exam. (m-t-v-2-majority)*

> *frequent testing helps teachers to assess students' progress, and forces students to study. (m-t-v-2-majority)*

In addition, other teachers suggested that the continuous assessment plan should start from the first day in school and be applied throughout the year, using monthly tests during that time:

> *I suggest that continuous assessments should be used from the beginning of the school year. (f-t-q-1-2)*

> *exposing the learner to continuous assessment and continuous testing is very good practice, and I am one of those who recommend this exercise. Nowadays, the exams and tests have become a stimulus that puts the learner in the subject mood. There should be regular testing, at least one test a month, to keep up the learners' movement and stop them drifting away from the subject. Even for me as a teacher this helps to assess the learner properly. (m-t-v-3-a few)*

However, if there is any future plan to integrate continuous assessment strategies in schools, modification should be made to the curriculum intensity, to give enough time to teachers to implement effectively these new plans, according to one of the teachers:

> *teachers should be provided with enough time and less curriculum quantity in case of applying continuous assessment in schools. (f-t-v-5)*

Some concerns regarding the assessment methods used in evaluating students' performance were explained by some teachers. A few teachers indicated their concern about an issue related to their validity, for example:

> *some of the multiple-choice tests in public secondary school exams give students some clues to the right answers. (m-t-v-2- few)*

> *It must be verified that the assessment instruments of students' progress are valid and reliable. (f-t-q-1-1)*

Another teacher's comment signified the importance of evaluating the validity of test items in accordance with their ability to evaluate students' conception of the subject matter:

> *look for the quality of test items, particularly items that evaluate the degree to which students comprehend a specific subject, not their ability to guess the answers. (m-t-q-10-1)*

> also, some students found this particular subject an important issue for them:

> *we want the questions in the final year to be unambiguous, since some items are vague and with the test pressure we feel confused. (m-s-v-2-4)*

> *some questions are difficult. (m-s-v-2-4)*

Moreover, some teachers explained how the text books they teach have some major problems that may affect students' ability to answer the questions in the evaluation sections of each unit in those books. Therefore, they recommended giving more consideration to these problems:

> *there are some questions in the evaluation section in the text book that cannot be answered from the text book topics. (m-t-v-3-4)*

> *pay more attention to questions at the end of each chapter in the text book. (m-t-q-9-1)*

Another major aspect that both teachers and students were interested in was the use of practical assessment techniques in addition to traditional forms. This was a significant need in the view of both teachers and students and both believed it could help to measure

students' achievement effectively. An individual teacher expressed the importance of implementing practical assessments:

> *Introduce the applications and practical skills extensively in the assessment process to train students on practical work, as well as find out to what extent students can apply these skills. (m-t-q-8-1)*

Another teacher described a possible way to encourage students' creativeness in classrooms. He suggested teachers should:

> *devote two lessons a week to employ more interaction and conversation between teachers and students to go beyond the school curriculum for more creativenesses. (m-t-q-3-1)*

Creativeness, however, requires real application of skills gained. A few teachers stated that students' practical skills were usually assessed theoretically through formal testing, with no practical activities as part of the assessment process:

> *the practical activities in scientific subjects are done just for demonstration and always performed only by teacher. But, when we want to evaluate these practical activities on the test we do this theoretically without asking the student to accomplish this practically. (m-t-v-3- a few)*

Even the students felt that they needed to be assessed practically by their involvement in real life situations, since this may help them to understand their life and how to deal with similar situations in the future:

> *most of the study here focuses on theory, and the main concentration is on the theoretical part, not the practical work. Even if we memorized these theories, in time we may forget them. We do not know what we could encounter in a real life situation, so we could meet some situations that involve the application of these theories, but then we may be unable to accomplish that since we do not connect the theoretical aspects with practical exercises. (m-s-v-2-6)*

Therefore, a majority of students described the significance of giving some practical exercises in addition to theory, for example, the use of the laboratory during the teaching of science subjects:

> *for me, as a student studying chemistry, this subject requires performing scientific experiments. The teacher will explain the subject to us theoretically. However, when I want to study and revise for a test, I read the book but it is hard to understand the information because we did not practise this in the lab. We have a lab in the school, but we have not been there, even once. If we did the experiment in the lab, the information would be reinforced in our minds. (m-s-v-2-majority)*

Another student wished teachers would give students some indication as to the possible ways they could benefit from the information being taught inside the classroom, by highlighting its application in real life situations:

> *everything we study could be applied in life, but nobody tells us their benefits. Therefore, at the end of each lesson, there should be some explanations about the benefits we may derive from this lesson in our life. (m-s-v-2-6)*

Nevertheless, applying assessment forms that require practical work and demonstrations is not in the hands of teachers. Many teachers indicated some of the factors that could affect their practising of alternative assessment forms, including rules and regulations that they must follow during their instruction and assessment processes:

> *teachers are restricted to rules and regulations that they must comply with, especially and specifically in the assessments. (m-t-v-3-majority)*

Other than the formal forms of evaluation that are included in the assessment plans, a few teachers indicated the importance of having practical assessments that can evaluate students' actual gains of skills and abilities that can be applied in different situations and different contexts, especially in applied science subjects:

> *apply practical assessments in chemistry, physics, and biology to understand to what extent students have benefited from the scientific experiments. As well as assessing the practical skills that they have gained by carrying out experiments or their involvement in this process. (m-t-q-8-3)*

215

other than the formal and oral testing, I wish there were practical assessments. (f-t-q-16-2)

These comments gave a clear picture about the possible issues surrounding the assessment practices, in addition to teachers' and students' views about the interaction between the assessment process and its influence on the learning progression and students' academic development.

After stating the most important comments from teachers and students regarding classroom assessment practices, the following part will examine the relationship between teachers' gender and their application of the different assessment techniques. It will explain the nature of this relationship, if any, and the significance of this association and its effects on participants' responses.

7.3.3. Factors that Influence Teachers' Assessment Practices

Another section of the questionnaire was devoted to factors that may influence teachers' assessment practices in the classroom settings. These factors could be internal and/or external elements that directly or indirectly affect teachers' classroom assessment exercises, for example, teachers' expectations about students' achievement abilities and/or the influence of other government bodies that set teaching and assessment policies.

First of all, the researcher will introduce some external factors that teachers believed to influence their capability to apply the various forms of assessment. Teachers' expectations about students' achievement abilities will be considered, as an internal aspect that could indirectly affect teachers' assessment of students' academic performance.

Besides, the major sources that provide teachers with tests, assessments, and the cognitive abilities assessed through classroom assessment application will be considered for further analysis in this section, since they are among the factors that could influence teachers' assessment practices.

After that, analyses of the independence and association between some of the main factors will be discussed to determine the relationships between those variables. Finally, teachers' comments about factors that affect their assessment practices will be examined to have an idea about common beliefs and possible explanations about this important issue.

7.3.3.1.   External Factors

As indicated earlier, in the introduction of this section, the external elements are those variables that force teachers to comply with specific plans and strategies regarding their teaching and assessment practices. These external elements may affect teachers' ability to employ the different assessment techniques. Teachers were therefore asked about some variables that they could have an impact on their assessment practices, namely, curriculum workload, the testing workload, insufficient awareness and training on the different assessment methods, and the large number of students in the class, the lesson time, compliance with the assessment plan specifics and compliance with the score distribution standards, and students' low achievement level.

Inspecting Table 7.12A may confirm some of the major factors that negatively influence teachers' ability to apply the different forms of assessment in classroom settings. It appears from the figures that the great majority of teachers 328 (66.9%) considered the large number of students in the class as always one of the significant elements that affected their capacity to apply the different kinds of assessment procedures.

In addition, 89 (18.2%) of them said that sometimes this factor could be influential while a few of them 73 (14.9%) claimed they never considered this factor as a major barrier regarding their assessment practices. The second variable is the curriculum workload, which was also regarded by the participants as always and sometimes another important obstacle that they faced, since 240 (49%) and 132 (26.9%), respectively, mentioned this factor whilst 118 (24.1%) of them thought it was never a problem for them.

Table 7.12A
External Factors that Influence Teachers' Assessment Practices

Responses Variables	Never		Sometimes		Always		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
The curriculum workload	118	24.1	132	26.9	240	49.0	490	100
The testing workload	192	39.2	157	32.0	141	28.8	490	100
The insufficient awareness of the different assessment methods	256	52.2	117	23.9	117	23.9	490	100
The insufficient training on the application of the different assessment methods	244	49.8	107	21.8	139	28.4	490	100
The large number of students in the class	73	14.9	89	18.2	328	66.9	490	100
Insufficient teaching time	143	29.2	125	25.5	222	45.3	490	100
Compliance with the assessment plan specifics	145	29.6	145	29.6	200	40.8	490	100
Compliance with score distribution standards	163	33.3	130	26.5	197	40.2	490	100
Students' low achievement level	103	21.0	163	33.3	224	45.7	490	100

The third and fourth variables identified as influential were students' low achievement level and the insufficient lesson time, since a large number of teachers indicated that these two factors always affected their practices. Other teachers, with variable frequencies and percentages, said they sometimes found these variables to be major aspects that may influence their assessment exercises. However, a notable number of teachers indicated the two factors were never problematic issue for them.

218

The fifth variable that a large percentage of respondents specified was compliance with the assessment plan specifics. This factor was thought to be was one of the significant variables that have major effects on teachers' assessment practices, since 200 (40.8%) of the respondents said this factor always affected their assessment, while a further 145 (29.6%) mentioned that they were sometimes affected by this variable. However, 29.6% said it had never been a problem for them.

The sixth variable, compliance with score distribution standards, was another key variable that teachers signified as problematic, with approximately similar percentages to the previous variable. Furthermore, 197 (40.2%) of the participants said they were always affected by this factor, and 26.5% believed this was sometimes the case. On the other hand, 163 (33.3%) of the respondents indicated they were never affected by this variable.

The seventh factor that was introduced to respondents as a possible factor that may affect their practices was the testing workload. Responses showed that 141 (28.8%) and 157 (32%) of the teachers, respectively, claimed that this variable always or sometimes influenced them, while 192 (39.2%) of them believed it was never a serious matter for them.

Finally, the last two elements introduced to teachers are insufficient training on the application of the different assessment methods and insufficient awareness of the different assessment methods. In fact, in comparison with the previous factors, few teachers indicated they always 139 (28.4%) and 117 (23.9%) or sometimes 107 (21.8%) and 117 (23.9%) considered the last two variables as major elements that affected their classroom assessment practices. However, many of them 244 (49.8%) and 256 (52.2%) indicated that insufficient training and lack of awareness of the different assessment methods had never affected their assessment practices.

After assessing teachers' responses to questionnaire items in general regarding elements that affected their classroom assessments practices, test were conducted to investigate the relationship between those factors and teachers' gender and subjects. The first assessed was teachers' gender, and Chi-square tests of independence and their probability levels for teachers' gender and all the external factors were applied. Only three major variables had probability values indicating statistical significance. These variables were the curriculum workload (χ^2=21.051, *DF*=2, *p*=.000), the testing workload (χ^2=8.156, *DF*=2, *p*=.017), and insufficient training on the application of the different assessment methods (χ^2=8.904, *DF*=2, *p*=.012).

The curriculum workload was the first variable that showed a significant difference between male and female teachers' responses. The number of female teachers who believed that the curriculum workload (172) always affected their practices was statistically higher than that of males (68). The Chi-square value for the curriculum workload (χ^2=21.051, *DF*=2, *p*=.000) was the highest value compared with the other two values. This indicates large differences between the observed values and the expected values in the different cells for males and females, which caused the large value of Chi-square. In addition, the Cramer's V test showed a moderate association between teachers' gender and the value effects of the curriculum workload. This may suggest that the effect of the curriculum workload is actually greater on female teachers than males.

For the remaining two factors, however, the numbers of female teachers who believed that the testing workload (107), and insufficient training on the application of the different assessment methods (142) never affected their assessment practices were statistically higher than those of males 85 and 102, respectively. The Cramer's V tests for the association between those two factors were (*C*=.129, *DF*=2, *p*=.017) and (*C*=.135,

220

DF=2, *p=.012*), suggesting a moderate relationship between teachers' gender and those two variables.

The assessment of relationship between teachers' subjects and the effect of external factors was the second element to be evaluated. The results showed dependent relationships between teachers' subjects and some external variables. These factors were the curriculum workload (χ^2=10.243, *DF*=4, *p*=.037), the testing workload (χ^2=14.794, *DF*=4, *p*=.005), compliance with the assessment plan specifics (χ^2=19.503, *DF*=4, *p*=.001), compliance with scores distribution standards (χ^2=14.916, *DF*=4, *p*=.005), and students' low achievement level (χ^2=17.742, *DF*=4, *p*=.001). In addition, relationships were found between teachers' subjects and the various factors (table 7.12B). The effects were different from specific subject area to another, especially for teachers of languages and social studies.

Table 7.12B
Teachers' Subjects and External Factors that Affect their Assessment Practices

Responses / Variables	Subjects	Never		Sometimes		Always		χ^2 / *p*	C / *p*
		F.	%	F.	%	F.	%		
The curriculum workload	S.S.	52	32.5	36	22.5	72	45.0	10.243	.102
	L.	29	18.0	47	29.2	85	52.8	.037	.037
	M/S.	37	21.9	49	29.0	83	49.1		
The testing workload	S.S.	75	46.9	38	23.8	47	29.4	14.794	.123
	L.	47	29.2	60	37.3	54	33.5	.005	.005
	M/S.	70	41.4	59	34.9	40	23.7		
Compliance with the assessment plan specifics	S.S.	41	25.6	39	24.4	80	50.0	19.503	.141
	L.	37	23.0	56	34.8	68	42.2	.001	.001
	M/S.	67	39.6	50	29.6	52	30.8		
Compliance with scores distribution standards	S.S.	53	33.1	32	20.0	75	46.9	14.916	.123
	L.	44	27.3	45	28.0	72	44.7	.005	.005
	M/S.	66	39.1	53	31.4	50	29.6		
Students' low achievement level	S.S.	46	28.8	54	33.8	60	37.5	17.742	.135
	L.	21	13.0	48	29.8	92	57.1	.001	.001
	M/S.	36	21.0	61	36.1	72	42.6		

While these external factors were clearly perceived by teachers as influential, internal factors, such as teachers' expectations about students' future achievement could also influence teachers' evaluation of students' academic achievement. This will be examined throughout the next section.

7.3.3.2. Internal Factors

The internal aspects that may affect teachers' classroom assessment practices can actually be derived from various sources within the school environment. Teachers use different educational instruments to assist them to evaluate their students' academic performance. However, there are other internal aspects that may influence teachers' assessment of students' learning progress, among these are teachers' expectations about their students' future achievement.

There are many variables that may form teachers' expectations about a specific learner. Some of these variables are related to students' direct academic performance, such as their previous certificates, their current scores, students' participation in classroom activities, and their interest in classroom and homework assignments. Other elements are related to teachers' beliefs about learners' achievement, such as their personal behaviour, their personal motivation to learn, and other teachers' expectations. Table 7.12C represent teachers' responses to all the factors that form their expectations about the learners' future performance.

It may be recognised from the table that more than three quarters of the teachers indicated that students' interest in classroom and homework assignments were always factors that structured their expectations about students' future achievement. Besides, more than seventeen percent of them said they sometimes used this element as an indicator to

predict learners' future achievement. In addition, more than seventy percent of them believed that students' personal motivation to learn always played an important role in determining their further achievement and more than nineteen percent of them said they sometimes considered this variable. However, it is important to indicate here some interesting responses: more than forty-four percent of the participants said that they always and sometimes used other teachers' expectations about the students as a method to predict their future progress. Moreover, more than twenty-four percent of the teachers signified that learners' previous certificates were always an influence on their expectations about students.

Table 7.12C
Factors that Form Teachers Expectations about Students' Future Performance

Responses Variables	Never		Sometimes		Always		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Previous certificates	252	51.4	116	23.7	122	24.9	490	100
Current scores	101	20.6	99	20.2	290	59.2	490	100
Participation in classroom activities	45	9.2	122	24.9	323	65.9	490	100
Personal behaviour	95	19.4	113	23.1	282	57.6	490	100
Personal motivation to learn	45	9.2	96	19.6	349	71.2	490	100
Interest in classroom assignments	31	6.3	85	17.3	374	76.3	490	100
Interest in homework assignments	35	7.1	86	17.6	369	75.3	490	100
Other teachers' expectations	272	55.5	103	21.0	115	23.5	490	100

Tests of independence between the variables and of association test were performed, beginning with teacher's gender. Five factors showed statistically significant results for differences in responses between male and female teachers: previous certificates (χ^2=37.803, DF=2, p=.000), current scores (χ^2=10.204, DF=2, p=.006), personal behaviour

(χ^2=11.753, *DF*=2, *p*=.003), interest in homework assignments (χ^2=9.076, *DF*=2, *p*=.011), and other teachers' expectations about students (χ^2=47.769, *DF*=2, *p*=.000).

For the two variables, previous certificates and other teachers' expectations about students, the numbers of female teachers, 185 and 202, who were never influenced by those two factors, were significantly higher compared with those of male teachers, 67 and 70, respectively. The Chi-square values for students' previous certificates (χ^2=37.803) and other teachers expectations about students were very high (χ^2=47.769), which means that the differences between the observed and expected counts for male and female teachers were very high. For the other three sources, current scores, personal behaviour, and interest in homework assignments, the numbers of female teachers, 188, 155, and 226, who always considered those sources in their personal expectation about students' future attainment were significantly higher than those of male teachers, 102, 127, and 143, respectively.

The Cramer's V test of association between teachers' gender and sources of teachers' expectations showed some important indicators. The figures demonstrated different degrees of relationships between teachers' gender and the sources. The highest association between the variables appeared between teachers' gender and other teachers' expectations about students (*C*=.312, *DF*=2, *p=.000*) and between teachers' gender and students' previous certificates (*C*=.278, *DF*=2, *p=.000*). The other correlations between teachers' gender and students' current scores (*C*=.144, *DF*=2, *p=.006*), their personal behaviour (*C*=.155, *DF*=2, *p=.003*), and students' interest in homework assignments (*C*=.136, *DF*=2, *p=.011*) were low, since the Cramer's V test statistic values were moderate for all those three variables.

7.3.3.3. Sources that Provide Teachers with Tests

There are many sources that provide teachers with tests and exams to aid them in evaluating their students' academic progress. Some of these sources could be within the same school, for example, tests from other teachers who teach the same subject. Teachers may be provided with past tests to help them choose items for their own made tests or to apply the same test again. Moreover, teachers may employ tests from other sources to help them in designing and administering exams. These sources could be other schools, the textbook, the teacher's guide book, books other than the textbook, educational websites, and the Ministry of Education.

Table 7.12D
Sources that Provide Teachers with Tests

Responses \ Variables	Never		Sometimes		Always		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
My own made tests	20	4.1	56	11.4	414	84.5	490	100
My colleagues' tests	145	29.6	166	33.9	179	36.5	490	100
The textbook	23	4.7	70	14.3	397	81.0	490	100
The Teacher's guide book	245	50.0	98	20.0	147	30.0	490	100
Books other than the textbook	140	28.6	134	27.3	216	44.1	490	100
Past tests from the same school	113	23.1	155	31.6	222	45.3	490	100
Past tests from a different school	123	25.1	168	34.3	199	40.6	490	100
Educational websites on the internet	209	42.7	137	28.0	144	29.4	490	100
The Ministry of Education	171	34.9	121	24.7	198	40.4	490	100

Table 7.12D presents frequencies and percentages that symbolize teachers' responses to the different variables. The table shows that 414 (84.5%) and 397 (81%) teachers indicated that their own made tests and the textbook were their major sources of tests. However, 245 (50%) teachers reported that they never used the teacher's guide book as an important

source for their tests. In addition, 209 (42.7%) of them said they never used the educational websites on the internet to provide them with tests and exams. The latter figures regarding the two variables means they are the least used sources from which teachers derive test items.

To assess the relationship between teachers' frequent use of sources and other independent variables, several Chi-square tests were applied for various factors. Teachers' gender was the only variable that showed any dependent relationship with sources of tests. However, only one item showed a significant result, that is, the teacher's guide book (χ^2=26.609, *DF*=2, *p*=.000). Here, the differences between observed and expected counts for male and female teachers were statistically high. The number of female teachers 171 (56.8%) who never used the teacher's guide book as a source of test items was higher than that of males, 74 (39.2%). No statistical differences were found between both genders for the remaining sources. Besides, the Cramer's V test of association between teachers' gender and their frequency of use of the teacher's guide book showed a moderate relationship (*C=.233, DF=2, p=.000*).

7.3.3.4. Assessing the Different Cognitive Abilities

After analysing teachers' frequency of use of the different sources of tests, the next factor in the analysis process is describing the types of cognitive abilities, with reference to Bloom's taxonomy, that are assessed through the use of different assessment methods. The main aim of this is to find the key features of test items with reference to the distribution and reflection of the different abilities, from the basic skills such as knowledge and comprehension, to the most advanced abilities such as synthesis and evaluation, in teachers'

tests. This will help in making more appropriate generalizations about teachers' behaviour in assessing students' different abilities and their frequency of application of these skills.

Table 7.12E
Teachers Application of the Different Cognitive Abilities in Tests

Responses / Variables	Never		Sometimes		Always		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Knowledge	26	5.3	91	18.6	373	76.1	490	100
Comprehension	16	3.3	77	15.7	397	81.0	490	100
Application	38	7.8	121	24.7	331	67.6	490	100
Analysis	65	13.3	139	28.4	286	58.4	490	100
Synthesis	84	17.1	131	26.7	275	56.1	490	100
Evaluation	93	19.0	132	26.9	265	54.1	490	100

It is clear from the inspection of the column frequencies and percentages in Table 7.12E that more than three quarters of the teachers in this sample assessed the first two basic cognitive abilities, knowledge and comprehension. The majority of teachers 397 (81%) answered that they always employed test items that measure students' comprehension skills. Besides, 373 (76.1%) teachers said they always assessed students' knowledge abilities. These two basic abilities, knowledge and comprehension, were the only ones that a large number of participants indicated they always employed in their tests. However, the numbers of teachers who said they always assessed the other four abilities gradually decreased, from application 331 (67.6%) to evaluation 265 (54.1), while the numbers of teachers who said they sometimes did so steadily increased. Even though more than fifty percent of the teachers claimed they always made use of other four abilities; application, analysis, synthesis, and evaluation in their own-made tests, most teachers approved to employ the first two basic skills more than the other important abilities.

The distribution of teachers' answers to each specific skill in this manner indicates that the majority of teachers preferred always to apply test items that require students to demonstrate their knowledge and comprehension abilities.

The Chi-square test of independence between teachers' subjects and their frequency of application of the different cognitive abilities showed significant relationships for synthesis (χ^2=21.000, *DF*=4, *p*=.000) and evaluation (χ^2=16.712, *DF*=4, *p*=.002). The number of teachers of various languages who always assess the synthesis 110 (68.3%) and evaluation 101 (62.7%) abilities were higher than those of teachers from other subjects. It is also important to indicate that a number of teachers of mathematics and sciences subjects 39 (23.1%) and 44 (26.0%) indicated that those two abilities were never assessed through tests. However, the strength of the association between those abilities and teachers' subjects were low, since the test values for both items, synthesis (*C*=.146, *DF*=2, *p=.000*) and evaluation (*C*=.131, *DF*=2, *p=.002*) were actually low.

Another Chi-square test between teachers' years of experience and cognitive abilities being assessed was employed. Analysis was the only ability that showed a significant relationship between the two variables (χ^2=13.740, *DF*=6, *p*=.029). The number of teachers who had more than 15 years of experience 171 (60.0%) was statistically higher than those of teachers with less years of experience. The results illustrated that a number of teachers with 1 to 5 and 6 to 10 years of experience said that the analysis ability was never assessed in tests, 7 (30.4%) and 17 (21.3%), respectively.

After finishing the analysis of the main data frequencies and percentages, it is time now to analyse some of the participants' written comments on the questionnaires, besides oral comments that were made during the focus group interviews. The following section

will present some of the major comments regarding all the factors, as well as providing

some descriptions and explanations about them.

7.3.3.5. Comments Regarding Factors that Influence Teachers' Practices

The analysis of teachers' written comments in the questionnaires and oral comments

during focus group interviews shows similar responses from teachers. Some of them

indicated one variable and others combined more than one variable together to explain the

influences these variables have on their practices. Most of the comments concerned three

factors: compliance with the assessment plan specifics, compliance with score distribution

standards, and the curriculum workload. Other variables, such as number of students in the

class, in addition to lesson time limits, are also important pressures on teachers' use of

assessment methods, albeit to a lesser degree:

> *teachers are confined to traditional assessment patterns, since the teaching methods, the curriculum, and complying with the assessment specifics plan set by the Ministry of Education oblige them to do that. In my opinion, the case is different for the independent schools, because they adopt a modern approach to assessment methods that depends on technology and modern standards in students' assessment. (f-t-q-17-1)*

The curriculum workload and teaching time, in addition to the traditional routine, according

to teachers, were other main aspects that prevented them from implementing new

assessment strategies in the classroom settings:

> *the assessment process is connected with curriculum quantity, time, and how many lessons I give during the week. We are complying with the curriculum that we have to finish, and the limited number of lessons a week. In fact, our work now is a routine and traditional work that we should follow. (m-t-v-3- a few)*

> *a great amount of time is lost when the student writes teachers' explanations on the board. The teacher wants to explain the topic comprehensively, therefore, he writes on the board in detail. After that, he must wait five or six minutes until all students have finished their copying of writing from the*

board, and through this process half of the lesson time is lost during this process. (m-t-v-3-a few)

7.3.3.5.1.   Compliance with the Test Plan Specifics

Most of the comments made by teachers on the questionnaires and in the interviews support the conclusion that complying with the test plan specifics was the major factor that the majority of teachers believed to have an important effect on their classroom evaluation exercises. Some teachers described the difficulties that they faced, which affected their abilities to plan their own assessments:

teachers are restricted to rules and regulations that they must comply with, especially and specifically in the assessments. (m-t-v-3-majority)

The educational advisors have a significant role in planning for tests and assessments, as the majority of teachers indicated:

teachers should follow the school and the advisors' instruction, and they may guide teachers to exclude an item on a specific test. (f-t-v-1-majority)

the test always includes various questions according to the advisors' recommendations. (m-t-q-9-5)

Other teachers indicated that there is always a ready-made assessment plan that teachers must employ in assessing their students' achievement:

we are required to follow the test specification plan that comes from the Ministry of Education. (m-t-v-3-a few)

teachers are advised to follow the test specification plan when designing their tests. (f-t-v-4)

One of the teachers claimed that their involvement in the design and construction of the assessment plan was always welcomed by the advisors:

the advisor welcomes any new ideas or suggestions regarding the assessment plan. (m-t-v-3-1)

Yet, some other teachers thought that they were not engaged in this process, since they were forced to follow specific procedures without any flexibility to use other techniques or to plan their own tests and assessment according to their interests:

> *even if teachers try to research for new methods that can be used to evaluate students' progress, at the end they have to comply with the regulations and designed plans. (f-t-v-1-2)*

> *there is always opposition to any new assessment that may help to develop the learning process. (f-t-q-16-1)*

Other comments explained that teachers were not engaged in designing the assessment plan, which may be considered as another obstacle that could prevent them from providing policy makers with effective comments and recommendations:

> *teachers' involvement in the assessment plan does not occur in reality, since we follow specific instructions. (m-t-v-3-a few)*

> *still, the final decisions regarding methods that should be used to assess the learners belong to others. (m-t-q-15-2)*

Therefore, one of the teachers proposed that they should have the opportunity to construct and choose the appropriate assessment procedure:

> *there should be variety of assessment methods and teachers should be given a chance to create different assessment techniques. They should be provided with instruction and guidance to establish and produce new assessment forms. (f-t-q-15-3)*

Giving students credit for their participation in classroom activities, in addition to rewarding them with marks for effective participation in extra-curricular activities, was one of the recommendations that some teachers suggested:

> *It is essential to increase the percentage and the mark that is given to students' participation in classroom activities. (m-t-v-2-majority)*

> *some students like to participate in classroom activities in addition to extra-curricular activities. Therefore, the assessment plan should include these activities as part of the evaluation and marks should be assigned for every student who participates effectively in these activities. (f-t-v-4)*

231

Another problem that appeared from the responses is that the relationship between advisors and schools is not helpful. In fact, a teacher claimed that the school advisors oppose any development plan that teachers may suggest:

> *there is sometimes a disagreement between advisors' instructions and the school policy and interests. (f-t-q-15-5)*

> *the educational supervisors do not have the ability to promote the development and implementation of new assessment plans. Actually, I think they are against any plan to develop those techniques. (m-t-q-10-2)*

7.3.3.5.2. Compliance with Scores Distribution Standards

Complying with score distribution standards was another barrier that prevented teachers from using other assessment forms and classroom activities to assess students' understanding. Most of the teachers interviewed indicated that for evaluating students' engagement in classroom activities other than tests, they were totally restricted to the percentages set by the Ministry of Education:

> *we are restricted to instructions and regulations sent to us from the ministry in relation to tests and score distribution standards. (m-t-v-3-a few)*

According to a few teachers, ten percent of the total mark is allocated for students' participation in activities, and half of this cent is for short tests and quizzes. As a result, the total percentage that is given to learners' participation in classroom activities other than formal tests and quizzes is 5%:

> *10% of the total mark is given to classroom activities, such as tests, exercises homework, follow up, participation in activities. Actually, just 5% of the total mark is given to activities that occur inside the class. (m-t-v-3-a few)*

Thus, there is little scope for recognizing students' participation in classroom activities, such as classroom assignments, homework assignments, and participation in activities; the same 5% also has to cover other activities, including writing research papers, summarising

books, library activities, and any other activities that teachers may use in classroom setting. However, a few teachers indicated that the activity mark is usually assigned to learners according to their classroom behaviour, to help underachieving students get some marks:

> *10% of the total mark in each subject is given for classroom participation and activities in addition to students' behaviour in the classroom. Yet, most teachers allocate this mark to students according to their behaviour in class to help students who have good behaviour and low achievement. And this policy is not designed by us, but it is regulated by others, directly or indirectly. (m-t-v-2-1)*

The same conclusion about teachers' distribution of the activity mark was made by the students themselves, since they indicated that some teachers gave these marks according to their own criteria. Some teachers assigned these marks in relation to learners' contribution in classroom activities, while others allocated them according to students' behaviour in the classroom:

> *the activity mark should be connected to other activities, such as quizzes and exercises. And distributing the mark in this manner depends on teachers' plans because some of them pay attention to students' behaviour and others focus on activities. (m-s-v-2-a few)*

The problem, according to the teachers, starts with the low percentage allocated for all those activities. Furthermore, the absence of marks for different classroom activities prevents students from participating in these activities. They feel less interested in such activities, since they know that no marks will be awarded for participation in classroom and homework assignments:

> *if we use any additional methods rather than the tests and exams, they will not be considered as part of the assessment process and there will be no marks awarded to students. And if the learner recognizes that there is no mark for any other assessment technique, he will not be inspired to study and participate in this process. (m-t-v-2- majority)*

> *the absence of marks for participation in classroom activities affects students' desire to be involved in these activities. (f-s-v-1-majority)*

233

In addition, some other teachers recommended the use of classroom activities that may encourage students to research and use information technology tools. However, marks should be assigned to these activities, to be sure of students' involvement:

> *most of the methods used are old and need to be developed and carry out other programmes and activities instead of tests, for instance projects and research. These activities should have marks and should involve using external books, computers and group work. (f-t-q-5-2)*

> *there are no marks assigned to activities and research. (f-t-q-15-9)*

Many teachers explained clearly how focusing generally on tests affects their opportunity to use practical assessment in the classroom or the laboratory experiments, since the assessment plan and the regulations do not take into account these practical activities:

> *the assessment system itself has an effect, in addition to other rules and directions, all of which constrain teachers. For example, my subject is chemistry and the assessment method of scientific subjects is done in a traditional manner. The practical elements in the scientific subject are given to students in the laboratory. However, we ask students again about these practical aspects, we assess them just theoretically by using tests without taking students to the laboratory to perform practical experiments. (m-t-v-3- few)*

Some teachers requested that the activity mark and percentage should be increased from the current level, since this change would probably influence students' involvement in the activities:

> *our request as teachers is to provide us with more marks in the assessment plan, such as 30% instead 10% or 5%. (m-t-v-3-a few)*

> *this percentage is not enough, and if we want to develop another plan this proportion should be more than the current one. (m-t-v-3-a few)*

A few teachers explained that if there is there is any plan to implement other classroom activities in the assessment process, marks and enough percentage should be assigned to these activities to guarantee that the learners will take them seriously and participate in them:

> *to use other methods of assessment, marks should be assigned to those methods that are within the 5% of the total mark, but not as a main part of the assessment system, because 95% of the total mark is particularly given to formal tests. (m-t-v-3-a few)*

An important suggestion by one teacher was that more freedom should be given to schools and teachers to design their own assessment plan:

> *the same assessment plan should not be applied to all schools in the same manner, since each school has its own style and vision. (m-t-q-5-1)*

Another teacher signified the importance of involving teachers in the assessment plan process, since they are the persons who are most engaged in students' learning and development:

> *teachers should be involved in designing the assessment specifics, since they are the people who best understand students' current progress and the best techniques to apply toward assessing students' achievement. (f-t-v-4)*

> *cooperation between all staff when designing assessment plans is essential. (f-t-q-1-1)*

In addition, people who plan for schools' assessments should take into account all teachers' recommendations regarding any suggested future improvement in the assessment plan and any problems with the current practices:

> *teachers' recommendations should be considered to improve the assessment plan. (f-t-q-1-1)*

Finally, a teacher believed that it is essential for teachers to have the freedom to design their own assessment plans that may incorporate multi-methods according to their students' needs:

> *I believe that each teacher should have his own unique way to assess his students, whether he gives weekly quizzes or after finishing each chapter in the text book or whatever the methods. (m-t-v-2-3)*

7.3.3.5.3.   The Curriculum Workload

The curriculum intensity and resultant workload was the third element that some teachers believed to be another factor that influenced their evaluation practices. A teacher explained an important point regarding the intensive curriculum that teachers were provided with:

> *the problem with the school curriculum, which all teachers experience is the huge amount of information provided in the curriculum. The major demand is that each student should understand and comprehend each subject curriculum as it is, without paying attention to the quality of it. I think we should choose fewer topics than are provided in all the books to give a chance for students to achieve the basic skills in mathematics, science, Arabic, and English languages. (f-t-q-6-1)*

Similarly, a few teachers explained how the curriculum workload and the large number of students prevented them from assessing each student individually, as the following comment illustrates:

> *the curriculum quantity in each lesson does not permit us to use different assessment techniques, since we want to finish the curriculum. It is hard to take into consideration and concentrate on individual differences between students. In addition, you may have too much curriculum quantity you should go through as well a large number of students. Therefore, it is hard to assess each student individually, and consequently this affects assessment procedures and even the teaching methods. (m-t-v-3-a few)*

Another teacher provided information about ways that the intensive curriculum and other extra work could negatively affect teachers' practices:

> *the intensive curriculum workload forces teachers to ask for extra lessons to finish teaching their subjects. Besides, teachers revise previous topics in the curriculum in addition to practising and training learners on past tests. Moreover, all these factors establish enormous load on teachers. (f-t-q-6-1)*

This includes worrying more about using different approaches to finish the curriculum syllabus and outlines quantitatively, without concern for the relative value of these elements and topics:

the problem is with the curriculum workload and carrying out assessments according to the number of pages in the text book without focusing on the significant topics. (f-t-q-15-3)

Others believed that most of the curriculum elements provide learners with basic cognitive abilities that do not require the application of more advanced skills and abilities in this stage of education:

the curriculum elements lack factors that assess higher-order thinking skills. (f-t-v-1-4)

In addition, a majority of students claimed that the current curriculum ingredients need components that introduce real life application, which students can benefit from learning. Students believed that they forgot most of the information taught in classrooms, since there was no practical application of those aspects:

usually the curriculum lacks real life application. For example, they did not teach us the benefits of using algebra in our life. So, when the school year ends, we forget everything and do not recognize its advantages. (m-s-v-2-majority)

In relation to this problem, some teachers suggested that the curriculum workload should be decreased to include more useful topics that could help to make the assessment procedures more beneficial for teachers and learners:

I would like to see a reduction in the quantity of information given in the curriculum textbook. (m-t-q-6-1)

It is possible to make the assessment process successful by decreasing the curriculum workload. (f-t-q-11-1)

Furthermore, another teacher commented that the current generation of learners have more ability to use technology and to communicate with it easily. Therefore, it is necessary to adapt new curriculum approaches that implement new topics, including the application of new technology in the learning process:

the modern generation are capable to mentally and intellectually interact with future technology. Therefore, we must modify and develop our curriculum to instruct and prepare the future generation. (m-t-q-5-1)

we need to involve computers more in the learning process. (f-t-q-5-2)

Another possible solution to the effects of the curriculum intensity, according to one of the teachers, is that the curriculum should be modified to allow for more regular assessment:

I think teachers should be given one lesson a week at least to carry out the assessment process. Moreover, the curriculum plan should be modified to encourage daily, weekly, and monthly assessments in the classroom. (m-t-q-10-2)

7.3.3.5.4. The Insufficient Teaching Time

Some teachers mentioned in their written and verbal comments on the questionnaires and in interviews the negative impact of insufficient lesson time and how this variable harmfully influences their actual teaching practices:

due to the time limits at the end of the school year, teachers are obliged to skip some parts of the curriculum to save time, even though these parts are linked to other sections or chapters in the curriculum. (f-t-v-1-majority)

In addition to the influence of insufficient lesson time on the curriculum management, some participants thought that it also had extremely negative effects on the assessment process, since there was not enough time to apply the different assessment techniques to measure students' academic performance by various methods:

there should be enough time for teachers to be able to do the assessment processes. The main obstacle that we encounter is the absence of enough class time. (m-t-q-10-2)

Another major effect that time constraints had on teachers was that it restricted teachers' capability to employ test and assessment results for the students' benefit:

what minimize the advantages of current assessment techniques are the time limit and engagement in routine duties, which as a result diminish the

employment of assessment results to improve students' performance and inform them about their weaknesses. (f-t-q-15-8)

Furthermore, the general assessment plans should be revised to involve the implementation of continuous assessment, and more teaching and assessment time should be given whenever it is required to employ other evaluation forms, such as interviews and observations:

> *continuous testing is easy to employ, but other assessment methods such as interview and observation need more time, in addition to specific resources in the school. Yet, for current practices continuous testing is the easiest method to apply. Also, the other assessment methods will produce more successful results in the long run, if a convenient environment is offered. (m-t-v-3-1)*

7.3.3.5.5. Other Factors that Affect Teachers' Practices

Another factor that teachers considered as an element that influenced their assessment practices was students' low achievement level:

> *one of the problems we encounter is students that have very low achievement level (m-t-v-3-a few)*

Some teachers claimed that some students actually lack basic skills, which, as a result, become an obstacle in the teaching process:

> *some learners do not have the basic proficiency in specific subjects to follow up with the next stage of the curriculum, and this makes it much harder for teachers to teach them new skills. (f-t-v-4)*

> *some students in the secondary school do not even know how to read, write, count, or solve some mathematical equations that they have already taken in middle schools. (m-t-v-2-a few)*

Therefore, these factors affect teachers' ability to assess learners' achievement effectively through the use of different methods, and to follow up with each learner:

> *some learners do not understand the way to answer the questions, to read, to calculate, and to solve mathematical problems. If the student cannot solve an equation, it is hard to continue studying and working with me to follow up with his peers. (m-t-v-2-3)*

239

A few teachers believed that the current learning process depends on traditional teaching techniques. Consequently, the current traditional assessment forms are parallel with and match those teaching methods:

> *the current learning process is working by means of traditional method that is direct instruction from teachers to students. Therefore, the assessment techniques are designed to correspond with these traditional techniques. (m-t-v-2-a few)*

Other than the factors that were introduced in the table, some teachers indicated that the new information technology tools are not effectively employed in schools. They recommended future employment of computers in the assessment process:

> *modern tools such as the computer and the internet are not utilized; therefore the current assessment procedures in public schools, not the independent schools, are still based on very old traditional procedures. Besides, any possible change will be limited and will not aim to change the student's attitude, thinking, and prepare him/her for the future. (f-t-q-17-1)*

> *we need to involve computers further in the learning process. (f-t-q-5-2)*

Even the learners claim that they had limited access to computers and the internet, which prevented them from answering the questions that are asked in the text books:

> *there is another point outside the tests. Some text books have questions that ask us to research a topic in the school library or on the internet and the school has library and internet access. We are authorized to use the library but not allowed to use the internet, even though it is more helpful. The activities in the text book are designed to be implemented but in fact they are not applied. The independent schools have more internet facilities, but in our case it is just the curriculum that we have. (m-s-v-2-majority)*

7.3.3.5.6.   Assessing the Different Cognitive Abilities

As was seen in the previous analysis, most teachers were likely to exercise two main abilities, knowledge and comprehension, in their exams more than the other significant abilities, such as synthesis and evaluation. This part will examine some of teachers' statements on the questionnaires and during the focus group interviews. These statements may reveal some major factors that influence teachers' practices on the use of the different cognitive abilities in their tests.

A few teachers confirmed that they always measured students' achievement through test items that assessed the lower cognitive abilities, such as knowledge and understanding, and they did not yet employ test items that measured the higher levels:

> *actually, we are still at the first level or maybe the second. We are still assessing the knowledge level even in scientific subjects, and only some teachers may have moved to measure the understanding level. But other levels, such as application, analysis and others, we still have not reached them. (m-t-v-3-a few)*

Other teachers claimed that there were several factors that limited their capability to use the different levels of cognitive abilities in their tests. Some of these factors were related to the curriculum workload and associated factors, such as the teaching methods and assessment procedures connected to curriculum components. The interaction between the three factors, the curriculum, the teaching methods, and the assessment techniques had a general effect on teachers' interest in using all the six levels of ability:

> *the current assessment techniques rely on old forms based on memorization, and the teacher is obliged to comply with them because the teaching methods are old and they aim to make the students save a great amount of information and memorize it whenever test time arrives and forget all of it later. (f-t-q-17-1)*

> *the application of all Bloom's taxonomy levels is limited to many factors. The major aspect is curriculum quantity in each lesson. (m-t-v-3- few)*

Actually, one teacher indicated that the facts and information that are provided in the curriculum book encourage teachers' application of lower thinking abilities. Furthermore, the curriculum is mostly constituted of basic and general information that encourages the use of these lower abilities. In fact, there is no information provided in the text book that requires the employment of higher-order thinking skills and creative work, according to the same teachers' statement:

> *the curriculum elements lack factors that assess higher-order thinking skills. (f-t-v-1-4)*

Test specification plan was another important element that influences teachers' capability to measure the different cognitive abilities in their classroom assessment practices. In addition, the majority of teachers indicated that educational advisors have a very significant role in selecting the cognitive levels to be assessed in tests and assessments: Therefore, teachers tend to use assessment methods that mostly require students to memorise solid information and abstract facts:

> *the test specification plan that comes from the Ministry of Education includes some of the cognitive levels, such as knowledge, understanding, analysis, but does not include all of them. (m-t-v-2-1)*

> *the advisors provide teachers with test specifics showing how to manage and design tests, and the weight that should be given in the test to each ability.   (f-t-v-1-majority)*

Some students' low achievement and lack of fundamental skills was another obstacle that teachers believed to have major effects on their willingness to employ higher-thinking skills:

> *most students are not ready to be assessed on higher levels, since they already lack these abilities and skills from the beginning. So if learners have not gained them, how can I assess them on these skills? (m-t-v-2-majority)*

Actually, some teachers thought that some students did not understand the meaning of specific questions and how to answer them and other students studied to memorise information and facts a couple of days before the formal tests. Therefore, all these reasons and others forced teachers to practise in that way, since these minimum learning behaviours required this kind of testing materials:

> *since the learners study hard and spend time to memorize information and have not been taught to think, I am compelled to assess the memorization skills and to set many questions that measure this ability, and reduce the amount of questions that require thinking. (m-t-v-2-3)*

> *if the students learnt the high order thinking skills through their studying and went through tests that assess these skills, then the learners themselves would ask you to assess them on these abilities and skills. (m-t-v-2-1)*

Because these high skills involve complicated thinking processes and the application of different abilities, teachers thought that some students did not have the required aptitudes to use them. Therefore, one teacher suggested that students should be trained by their teachers from the beginning to develop these skills and abilities during their day to day learning. In this way, when students reached secondary school, these creative thinking skills would be built in their minds. As a result, it would be easy for them to exercise the skills and abilities that they had previously mastered and gained from their continuous learning and application of these skills in their current educational level:

> *at the high school level, I cannot address problems that started with a student from the first stage. It is hard to teach him how to think until gradually he reaches the high order thinking skills. We must prepare the students to accomplish these levels. (m-t-v-2-3)*

Some teachers recommended that future assessment plans and testing practices should rely less on questions that measure the basic abilities, such as memorising facts and information, since these types of items did not measure the students' actual gains:

> *in relation to current assessment procedures; questions that assess students' capability to memorize should be reduced. (m-t-q-13-1)*

243

Others believed that the assessment plans should be modified to help the students to be prepared for higher education responsibilities:

> *the current techniques are not adequate and superficial, and the main aim of them is to pass the student, not to measure his real achievement. Therefore, I believe that the current assessment practices should be modified, especially for secondary school students. Because when a student transfers to the university education, he might be shocked by his academic weaknesses and inability to carry on because of the big differences between the university and the secondary school. (m-t-q-4-2)*

7.3.4. Purposes of Assessments

There are several objectives behind the application of the different assessment techniques. These objectives vary according to teachers' main rationale of testing practices. Educational assessments could be used in classroom settings for a number of purposes, depending on the chosen time of assessment. Tests could be used before the beginning of the instructional process to assess students' attainment of elementary skills and to verify their past experiences on the different subject matters.

Other assessment techniques have a formative function, since they may be used to detect learners' potential strengths and weaknesses to provide them with immediate and frequent feedback that helps them to support their strengths and overcome the weak points during the learning process. This practice helps the students to understand their current actual achievement with effective suggestions and remedial plans that help underachieving students to tackle their weaknesses to keep up with their peers.

The third purpose that educational tests may serve is a summative function. In this type of testing, the students are tested to measure their academic attainment on a specific part of the curriculum.

The main reason for this exercise is to provide learners with marks in different periods that represent their current learning progress. Besides, at the end of the school year, students are provided with the final school certificates that characterize their final achievement. This helps in deciding if they should move to a more advanced grade level or stay for an additional year in the same learning stage.

The final objective that could be applied through the use of the different assessments is to evaluate the effectiveness of the assessment techniques and processes. In fact, this exercise helps the teachers to recognise any problems with the test items that could cause variability and inconsistency in students' answers. Any such responses on a specific test may affect the validity and reliability of teacher-made tests, which as a result would give an incorrect indication about students' current performance.

Therefore, it was important to investigate how frequently teachers use assessment for these purposes in their current practices. Table 7.13 shows teachers' frequency of application of these different objectives in their tests. It appears from these figures that no teacher indicated that they always assessed students' attainment of fundamental skills before the beginning of the instructional process. Many teachers indicated they sometimes 307 (62.7%) assessed with this objective and 183 (37.3%) teachers said they never assessed learners' basic skills before the commencement of teaching.

Table 7.13
Purposes of Assessments

Responses / Variables	Never		Sometimes		Always		Total	
	F.	%	F.	%	F.	%	F.	%
Assess students' attainment of fundamental skills before the beginning of the instructional process	183	37.3	307	62.7	-	-	490	100
Determine students' past experiences before the beginning of the instructional process	47	9.6	116	23.7	327	66.7	490	100
Measure students' attainment of the required skills for a limited segment of instruction	24	4.9	53	10.8	413	84.3	490	100
Diagnosing students' strengths and weaknesses	20	4.1	53	10.8	417	85.1	490	100
Providing students with feedback regarding their learning performance	24	4.9	65	13.3	401	81.8	490	100
Assign grades to students	40	8.2	89	18.2	361	73.7	490	100
Move students from one grade to another	83	16.9	81	16.5	326	66.5	490	100
Provide students with certificates	87	17.8	99	20.2	304	62.0	490	100
Judge the success scope of the assessment process itself	84	17.1	119	24.3	287	58.6	490	100

However, for the remaining objectives behind the application of tests and assessment, teachers' responses showed that most teachers fell into two categories. More than fifty percent of the teachers signified that they always and sometimes used tests and assessments to assist them in employing different strategies in classroom settings, from determining students' past experience before the beginning of the instructional process to judging the success of the assessment process itself. For example, 417 (85.1%) teachers indicated they always diagnosed students' strengths and weaknesses through assessments, 413 (84.3%) teachers used assessments to measure students' attainment of the required skills for a limited segment of instruction, and 401 (81.8%) of them employed test results to provide learners with feedback regarding their learning progress. No relationships were found between those goals and the other variables.

7.3.4.1. Comments about Purposes of Assessments

Teachers' comments about the objectives following their application of the different assessment techniques varied from one teacher to another according to the type of objective behind the application of a specific test. In addition, teachers' comments differed in some respects, since these comments reflected their own experiences and beliefs with regard to their actual practices. Some teachers believed that tests were never used in secondary schools to diagnose students' strengths and weaknesses or to evaluate their acquisition of elementary skills:

> *diagnostic tests do not exist and are not used. (m-t-v-3-1)*

> *there is no such assessment of fundamental skills in public schools.*
> *(m-t-v-2- all)*

Other teachers talked about using assessment techniques with the objective of providing students with feedback about their learning development. As regards the sort of tools that are used to deliver the appropriate feedback to students after the assessment procedures, some teacher indicated that quizzes and short tests are used as instruments to help them in providing students with useful information:

> *some teachers use quizzes to give feedback to students. (f-t-v-1-3)*

> *we usually apply short tests for five, ten or fifteen minutes, and we tell the students we are going to give them a test for 10 minutes to identify their achievement and help them recognize the different types of questions. However, marks on these tests are not included in the main assessment but may be used within the activity mark, which is 10%. (m-t-v-3- few)*

A few instructors explained that the feedback period usually starts after delivering the mid-term examinations to students and supplying them with the results and grades:

> *giving feedback to students is usually done, for example, in the mid-term or at the beginning of the second term after the examinations or by giving students some temporary and experimental tests. (m-t-v-3-a few)*

247

In addition, in relation to the method that is used to deliver the feedback information, some teachers signified that they usually provided feedback to the class as a whole, in specific circumstances:

> *usually feedback is given for the whole class and rarely on an individual basis, but sometimes a student or a parent may come individually, and we explain to him that his son was not good on the test and give him and each student feedback about specific mistakes. (m-t-v-3-few)*

Some students explained that teachers used various means to provide them with feedback. Sometimes this could be done for the whole class in general and other teachers preferred to focus just on students with low marks:

> *after testing and grading, some teachers will follow up with students who have low marks and some do not do that. The follow up is done by reviewing the test and asking us about the topics that we may not understand. (m-s-v-2-few)*

> *some teachers provide feedback about the test result to some students individually. (m-s-v-3-1)*

> *the follow up revision is for the whole class, but the teacher may offer to see students after the lesson. But usually students do not go to see him again, and the teacher will not ask them again. (m-s-v-2-3)*

Other students believed that teachers did not provide them with the appropriate feedback regarding their mistakes, and if there were any notes about their test performance it might be done through a general review of their mistakes on tests:

> *Teachers do not always provide us with feedback about our exercises. (m-s-v-3-1)*

> *after testing, no feedback is given on paper regarding the wrong answers. However, some teachers may write down the correct answers on the board and revise them with us to help us understand them. (m-s-v-2- a few)*

One teacher said that focusing on each individual student might be hard to do, since there are many factors that affect teachers' ability to do that.

> *It may be too difficult and a heavy load for teachers to follow up with each student. (f-t-v-1-4)*

248

A majority of teachers indicated factors that could affect their process of feedback in classroom, including the rules and regulations that they must follow during their instruction and assessment processes:

> *teachers are restricted to rules and regulations that they must comply with, especially and specifically in the assessments. (m-t-v-3-majority)*

Others thought that the current routine, limited lesson time, and the large number of students in the class were other factors that affect teachers' capabilities to help students benefit from the evaluation process:

> *the current assessment techniques usually assess the memorization skills, and rarely provide students with feedback about their real achievement level in addition to determining their weaknesses. In fact, it is difficult to treat those weaknesses, because of the existing routine in the teaching process. (f-t-q-1-4)*

In addition, the intensity of curriculum syllabi besides the large number of students in each classroom was other important elements:

> *the large number of students in the classroom with different abilities, in addition to curriculum workload, does not give teachers chance to assess students individually. Further, those factors make teachers unable to provide students of different abilities with proper feedback according to their performance level. (f-t-q-5-3)*

> *the current assessment practices are affected by the huge number of students that make us assess students all together. (f-t-q-15-6)*

Teachers noted the new regulations in the independent schools, and how this may positively affects teachers' practices:

> *In the independent schools model, there is adequate space for teachers in addition to a sufficient amount time and small number of students in the class. Therefore, teachers have enough time to expand their performance to follow up and explain and have more space to convey more benefits to the learner. (m-t-v-3-majority)*

Other teachers suggested specific arrangements that might help in supporting teachers to provide students with the required feedback regarding their strengths and weaknesses. These included adjusting the curriculum to encourage the implementation of continuous assessment:

> *the assessment plan should encourage teachers to use continuous assessment whenever possible, since this may help us to diagnose students' learning progress. (f-t-v-4)*

A teacher thought that tests were the only assessment form that teachers could employ to provide learners with feedback about their academic performance. However, she asked to be informed about any possible methods of feedback other than tests:

> *If there is an opportunity for feedback other than exams, tell us, but I think there is not. (f-t-q-16-2)*

7.3.5. Students' Relationship with the Assessment Process

Another important issue that was planned to be assessed through this study is to what extent students are engaged in the assessment process. Students' engagement in this process could have many facets, depending on some specific elements that should be implemented to guarantee this practice. Among these elements are clarifying to them the instructional objectives that students should achieve by the end of the learning process. In addition, it is important to notify them about the criteria by which their achievement will be assessed, as well as to give them the chance to assess themselves and their peers. The next paragraphs will analyse students' involvement in this process, besides their benefits from the evaluation process.

7.3.5.1   Students' Involvement in the Assessment Process

Table 7.14A shows some of the practices that were included in the questionnaire, related to students' effective involvement in the assessment process, as well as teachers' responses to all these variables according to their gender. It appears from the table that the most focus from the teachers was on practices that take into account the importance of the testing process. In fact, 437 (89.2%) teachers indicated that they always guided students to be prepared for dealing with test papers. In addition, 432 (88.2%) of them said they always guided students to be prepared for tests, and 4425 (86.7%) of teachers confirmed they always trained students on previous tests.

However, 215 (43.9.0%) of teachers indicated they sometimes and never gave students the chance to assess themselves and their peers. Furthermore, 171 (34.9%) of the respondents signified they sometimes and never clarified to students the intended instructional goals to be met by them. For the first two variables, the answers were approximately consistent with teachers' responses about their frequency of application of students' self and peer assessments.

Table 7.14A
Strategies Applied to Involve Students in the Assessment Process

Variables / Responses	Never		Sometimes		Always		Total	
	F.	%	F.	%	F.	%	F.	%
Clarify to them the intended instructional goals to be met	64	13.1	107	21.8	319	65.1	490	100
Inform them about the criteria in which their achievement will be assessed	48	9.8	98	20.0	344	70.2	490	100
Clarify the weight of each item by grades in the assessment method	44	9.0	97	19.8	349	71.2	490	100
Help students to understand what to do against specific criteria that they will be judged on	47	9.6	86	17.6	357	72.9	490	100
Give them the chance to assess themselves	68	13.9	147	30.0	275	56.1	490	100
Give them the chance to assess their peers	191	39.0	139	28.4	160	32.6	490	100
Guide students to be prepared for tests	16	3.3	42	8.6	432	88.2	490	100
Guide students to be prepared for dealing with test paper	15	3.1	38	7.8	437	89.2	490	100
Train students on previous tests	19	3.9	46	9.4	425	86.7	490	100
Explain to a student his/her progress in achieving targets	30	6.1	75	15.3	385	78.6	490	100

The Chi-square test between teachers' subjects and strategies being used to involve students in the assessment process showed a dependent relationships for two items: clarify the weight of each item by grades in the assessment method (χ^2=14.584, *DF*=4, *p*=.006); explain to a student his/her progress in achieving targets (χ^2=26.074, *DF*=4, *p*=.000). The numbers of teachers of languages 142 (88.2%) and 122 (75.8%) who always employed those two strategies in their practices were statistically higher than those of teachers of other subjects. However, the association test showed significance, but with moderate relationship values (*C*=.122, *DF*=4, *p=.006*) and (*C*=.163, *DF*=4, *p=.000*).

7.3.5.2. Students' Benefits from the Assessment Results

Another important element that may represent students' involvement in the assessment process is their benefits and gain from the application of different assessment techniques and the results and marks that follow these practices. Table 7.14B considers some of these practices that teachers may implement in classroom settings after delivering marks and results to students, to help them understand their strengths and weaknesses and so improve in the future. As indicated in the table, among the total sample of 490 teachers, 427 (87.1%) of them mentioned they always re-explained the instructional elements that students could not comprehend, although 63 (12.9%) teachers signified that they sometimes and never did so. Moreover, when teachers were asked if they modified their instructional plans according to students' needs, it was found that 293 (59.8%) of them indicated they always did so, while 111 (22.7%) of them said they sometimes did so, and 86 (17.6%) of teachers indicated they never did. Table 7.14B shows the values for the remaining four variables.

Table 7.14B
Students' Benefits from the Assessment Results

Responses / Variables	Never		Sometimes		Always		Total	
	F.	%	F.	%	F.	%	F.	%
Re-explain the instructional elements that students could not comprehend	19	3.9	44	9.0	427	87.1	490	100
Modify the instructional plan according to students' needs	86	17.6	111	22.7	293	59.8	490	100
Give remedial work to students who lack prerequisite skills	36	7.3	123	25.1	331	67.6	490	100
Design remedial work for students with severe learning problems	77	15.7	117	23.9	296	60.4	490	100
Provide students who have mastered some of the material on the future planned instruction with a more advanced level of instruction	78	15.9	106	21.6	306	62.4	490	100
Support students with explicit plans to improve their learning performance	52	10.6	99	20.2	339	69.2	490	100

After the general inspection of the data, the next procedure was to test the independence between teachers' responses about students' involvement in the assessment process and other important variables. Providing students who have mastered some of the material on the future planned instruction with a more advanced level of instruction was the only item on this list that showed a significant relationship with teachers' gender (χ^2=10.255, DF=2, p=.006). The difference between the observed and expected counts of male and female teachers was significant. The number of female teachers 175 (58.1%) who said they always provided students with more advanced instruction was statistically higher than that of male teachers, 131 (69.3%). The Cramer's V test value showed a significant but moderate relationship between teachers' gender and preferences in relation to this practice (*C*=.145, *DF*=2, *p*=.006). It is important to indicate here that the number of female teachers 168 (55.8%) who claimed always to modify the instructional plan according to students' needs was higher than that of males 125 (66.1%), even though the test of independence value fell just short of the significance level (χ^2=5.963, *DF*=2, *p*=.051).

7.3.5.3.   Assessments' Effects on Students' Learning

Using different assessment techniques in classroom settings could have both positive and negative effects on students' learning. Positive effects are believed to take place whenever the assessment methods used in the classroom encourage learners' participation in classroom activities, as well their effective communication with their peers and teachers. Besides, educational measurements could be beneficial to students if they encourage learners to think effectively, help them to acquire new skills and help them to understand their achievement abilities.

However, negative aspects of assessment may occur whenever the assessment procedures increase test anxiety among students, make them focus mainly on getting high marks, and increase grade competition between them rather than centring learners' attention on their strengths and weaknesses in order to facilitate development and improvement. Table 7.15 lists all the positive and negative effects that assessment techniques may have on students' learning progress. It seems from the table analysis that motivating students to get high marks 417 (85.1%) and increasing grade competition between students 380 (77.6%) were the effects that teachers always perceived assessments to have on students. However, 230 (46.9%) teachers signified that assessments increase test anxiety among students, while 135 (27.6%) and 125 (25.5%) of them said they sometimes and never felt that tests had this effect. For the remaining elements, the frequencies and percentages showed that assessments had variable effects on students' motivation to learn and their interaction with their peers and their teachers. No relationships were found between these effects and other major factors.

Table 7.15
Assessments' Effects on Students' Learning

Responses / Variables	Never		Sometimes		Always		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Motivates students to get high marks	24	4.9	49	10.0	417	85.1	490	100
Increase grade competition between students	33	6.7	77	15.7	380	77.6	490	100
Encourage students' participation in classroom activities	39	8.0	85	17.3	366	74.7	490	100
Encourage students' communication with their peers	52	10.6	116	23.7	322	65.7	490	100
Encourage students' communication with their teachers	48	9.8	98	20.0	344	70.2	490	100
Encourage students to think effectively	51	10.4	114	23.3	325	66.3	490	100
Increase test anxiety among students	125	25.5	135	27.6	230	46.9	490	100
Create a cooperation situation between students	58	11.8	124	25.3	308	62.9	490	100
Help students to acquire new skills	50	10.2	100	20.4	340	69.4	490	100
Increase students motivation to learn	46	9.4	106	21.6	338	69.0	490	100
Help students to understand their achievement abilities	33	6.7	80	16.3	377	76.9	490	100

7.3.5.4 Comments on Students' Involvement in the Assessment Process

Explaining the instructional objectives to be met during the learning process besides the assessment plan were the major aspects of student's involvement mentioned. The majority of the teachers and the learners indicated that they discussed the instructional objectives to be met, in addition to score distribution plans:

usually teachers explain to students the instructional objectives that should be met, in addition to verifying the percentages and marks for the mid-term and final-term exams. (f-t-v-1-4)

we discuss with teachers about the assessment plan and marking. (m-s-v-2-a few)

students are guided to the educational objectives that should be accomplished and the work that should be done to achieve these objectives. (f-s-v-1-majority)

256

The comments also indicated that teachers were always available for students for any further questions regarding the educational objectives depending on students' needs:

> *usually I explain to my students the general educational objectives at the beginning of the school year, and provide them with any further detail if they request that. (f-t-v-4)*

> *If students do not know the educational objectives, they may ask their teachers about them. (f-p-v-1-majority)*

Besides teachers' explanation of the instructional objectives, a student verified that the objectives are stated in the text books:

> *the educational objectives are mentioned at the end of the text book. (m-s-v-2-3)*

One of the teachers explained how she tried to involve learners in their learning through encouragement and participation in activities:

> *I encourage my students to participate in the classroom activities and to ask me about any unclear elements in the curriculum. (f-t-v-5)*

However, one of the teachers explained in her comments on the questionnaire that the objectives are rarely discussed with students inside the classroom:

> *teachers' assessment should be applied according to lesson objectives, but we usually do not review these objectives with students. (f-t-q-1-1)*

One of the students explained how practising old tests helped them to identify their current errors on these tests. As a result, this may help them to overcome any possible confusion in future exams:

> *revising past tests helps us to be ready for the final exams, because we can understand our mistakes and correct them. (m-s-v-2-2)*

Students' involvement in assessing themselves and their peers, according to a few teachers, is not implemented in schools. They actually believed in the importance of such practice and, therefore, they recommended that students should be trained firstly to practise this:

> *students are not involved in the assessment process. Therefore, students should be trained to assess themselves and their peers. (f-t-v-1-4)*

> *train students to assess themselves. (m-t-q-3-2)*

Another teacher explained that the learners' engagement in this process may be secured in a different way, through helping their peers who might have some difficulties in achieving the instructional objectives:

> *encourage students to help their peers who have learning difficulties. (m-t-q-3-2)*

Moreover, another teacher suggested that a discussion about the appropriate assessment technique to be used in the class to evaluate learners' progression could be incorporated through following specific standard procedures:

> *I suggest using students' self assessment by giving them the freedom to choose their preferred methods of assessment, and this could be done after explaining to them the way they should go accomplishing this assessment. (m-t-q-14-1)*

Tables were one of the strategies that teachers used for the benefit of the learners. One of the teachers explained that they employed tables to assist them to identify students with learning problems to provide them with remedial plans:

> *some teachers use tables to identify students with low achievement levels to give them daily remedial plans. (f-t-v-1-4)*

Nevertheless, many teachers indicated that curriculum workload, number of students, and teaching time impeded their ability to provide learners with more beneficial strategies after the assessment results. Some teachers believed that decreasing the curriculum intensity may help teachers to apply assessment forms to efficiently diagnose students' strengths and weaknesses:

> *reducing the curriculum intensity may help in increasing the diagnostic tests of students' progress. (f-t-v-1-majority)*

Another teacher believed that the continuous assessment of students' academic growth may

provide valuable information that may help understand the learners' current progression:

> t*he assessment plan should encourage teachers to use continuous assessment whenever it is possible, since this may help us to diagnose students' learning progress. (f-t-v-4)*

However, a few teachers explained that modifying the instructional plan according to

students' needs is not always possible. There are actually many factors that control this

practice, including following the specific plans of advisors:

> *teachers' involvement in the assessment plan does not occur in reality, since we follow specific instructions. The advisor guides us through a discussion regarding this issue, and he may suggest some procedures and remedial plans for underachieving students. (m-t-v-3-a few)*

In addition to the external factor, teachers are also required to cover the curriculum within

specific time, which would not be possible if teachers instructed each student separately:

> *teachers do not have the freedom to modify the curriculum according to their students' needs and lesson time. If there are too many topics in the curriculum, teachers may not have enough time to follow up with each student individually, since they must deliver all these topics in a specific time limit.   (f-t-v-5)*

Another teacher's comment showed how the limited teaching time had negative effects on

her ability to provide talented learners with advanced instruction:

> *I wish I had enough time to provide students who have mastered some of the material on the future planned instruction with a more advanced level of instruction. (f-t-q-16-1)*

7.3.5.5.   Comments about Assessment Effects on Students' Learning

Most of the comments from teachers and students signified that tests were very beneficial for both of them. Tests were said to give teachers an indication about students' current academic progress. Besides, learners believed that tests help them to be prepared for exams and, therefore, study for them. A majority of teachers considered that with no tests, students will not study the important topics in the text book:

> *students revise whenever there is a test, otherwise they will not study. (m-t-v-2-majority)*

A few students indicated that the testing process played a major role in their learning. They believed that tests helped them to maintain and consolidate knowledge they gained from instruction:

> *tests are good for us, since they make us revise all the time and help us to memorize the information. They help to strengthen the information in our mind, which as a result helps us to easily answer the final exam. But without tests we memorize the information and sooner or later forget it. (m-p-v-2-a few)*

Another teacher described the major negative consequences that tests may have on students' achievement, including fears and anxiety, which, as a result, may prevent students from getting high percentages in the final exams:

> *tests make the student feel afraid, anxious, stressed, and fearing to fail the test or unable to be successful and to obtain the required percentage. (f-t-q-17-1)*

A group of teachers believed that the main aim of students was to graduate from the secondary school, not to gain new information, knowledge, and skills that may help them in their future. Therefore, they said, learners tended to memorize information and soon they forgot most of the information studied at previous grade levels:

> *If you asked a student about some information he got from the last year, he might not be able to answer you. This means that I teach the learner to graduate from the high school, not to be skilled. (m-t-v-2-majority)*

The same teachers believed that motivating students in their learning is a continuous process from the first to last year of study. Furthermore, they indicated that marks are usually the best reward that motivates students during their study:

> *motivating learners to study should start from the early stages, not after learners reach high school level. At secondary level, marks are the best stimulation for them to learn. (m-t-v-2-majority)*

There were many comments from teachers and learners that showed tests and marks as the main motivator for learners to study. It is appeared from these comments that without testing the students about their accomplishment of the learning targets, learners would have little motivation to study. A majority of teachers explained how the tests motivated students to study topics expected to come on tests, without any effort to comprehend the remaining elements in the books:

> *most students usually search for curriculum topics that are likely to come up in tests, to study them. Yet, other topics that are not part of a specific test are less likely to be studied (m-t-v-2- majority)*

A few learners explained how tests created special situations where they felt that they were forced to study to face the examinations and to be prepared:

> *more testing is better than the activity mark, since testing puts pressure on us to study and pass tests (m-s-v-3-few)*

> *It is good that teachers give us tests all the time, since this makes us feel stressed and, therefore, makes us study (m-s-v-2-1)*

Even the teachers believed that learners studied just to pass tests; therefore, a teacher suggested that assessment should be continuous during the school year, to keep learners motivated in during the learning process:

> *the assessment process only depends on tests; therefore the learners do not study until the test period. If students' assessment was continuous during the whole year or every month and constantly, the students' motivation to learn would be enhanced much more than their current attitude. (f-t-q-11-2)*

7.3.6. Teachers' Training on Assessment Techniques

The last section contained in the questionnaire was the section about the frequency of teachers' training on different assessment techniques. Training is an important element that keeps teachers updated with the newest assessment techniques. Besides, it helps teachers to raise their concerns and questions about their various applications of assessment methods. Therefore, it was important to ask teachers about the frequency of their participation in workshops and training sessions, in addition to their beliefs regarding their satisfaction with their current training level and their future training needs.

The first question that was asked to teachers was whether they had ever participated in any workshops on classroom assessment techniques. Amongst the 490 teachers who participated in the study 310 (63.3%) indicated they had attended such workshops, while 180 (36.7%) said no. The Chi-square test outcome showed a significant relationship between teachers' gender and their participation in assessment workshops (χ^2=16.233, *DF*=1, *p*=.000). The number of female teachers who had taken part in assessment workshops 169 (56.1%) was higher than that of male teachers 141 (74.6%). The indicators showed also that the number of female teachers who did not participate in assessment training programmes 132 (43.9%) were higher than the number of males 48 (25.4%). The Cramer's V test, however, indicated moderate relationship between the two variables (*C*=.186, *DF*=1, *p=.000*).

Another Chi-square test was done between teachers' years of experience and their attendance in assessment workshops, and the test value demonstrated another significant relationship between those two variables (χ^2=15.568, *DF*=3, *p*=.001). The number of teachers with over 15 years of experience 199 (70.6%) who participated in assessment workshops was higher than those of other teachers with 11-15 years of experience 58

(55.2%), 6-10 years of experience 41 (51.3%), and 1-5 years of experience 12 (52.2%).

There were some teachers from the different groups who had not attended any assessment

workshops. Large number of teachers with 1 to 5 years of experience 11 (47.8%), teachers

with 6 to 10 years of experience 39 (48.8%), and teachers with 11-15 years of experience

47 (44.8%) indicated they had never attended any workshops on assessment methods, while

the number and percentages of teachers with more years of experience were lower. The test

of association between the two variables showed a moderate correlation coefficient value

(C=.178, DF=3, p=.000).

Teachers who reported attending in assessment workshops were asked about the

number of workshops they had attended. 66 (21.3%) of them said they had attended one

workshop, 59 (19.0%) said two workshops and 185 (59.7%) of teachers said more than two

workshops. There was a relationship between teachers' gender and the number of

assessment workshops they attended (χ^2=20.207, DF=2, p=.000). The number of male

teachers 101 (71.6%) who said they attended more than 2 workshops was statistically

higher than that of females 84 (49.7%). The strength of the relationship between teachers'

gender and their attendance level was moderate (C=.255, DF=2, p=.000).

Teachers' years of experience and their attendance level were also dependent, since

the Chi-square value was statistically significant (χ^2=16.680, DF=6, p=.011). The number

of teachers with over 15 years of experience who had participated in more than two

workshops 132 (66.3%) was higher than those of teachers with 11-15 years of experience

28 (48.3%), 6-10 years of experience 20 (48.8%), and 1-5 years of experience 5 (41.7%).

Teachers who had participated in workshops were asked about the last workshop

they had attended, that was related to assessment methods. Of the 310 teachers who had

taken part in training sessions, 185 (59.7%) of them said it was within the past 1-2 years, 71

(22.9%) within 3-4 years, and 54 (17.4%) within five years or more. The Chi-square was used to test the independence between teachers' subjects and their time attendance. The test value confirmed that the variables were statistically related (χ^2=18.236, *DF*=4, *p*=.001). The number of teachers of Languages 72 (72.0%) who had participated in assessment workshops within 1-2 years was statistically higher than those of teachers of Social Studies 63 (60.6%) and Mathematics and Sciences 50 (47.2%).

The Chi-square test between teachers' years of experience and their time of attendance also showed a positive result. The differences between teachers from the different experience categories were statistically significant (χ^2=18.236, *DF*=4, *p*=.001). The number of teachers with over 15 years of experience 113 (56.8%) who had participated in assessment workshops within 1-2 years was higher than those of teachers with 11-15 years of experience 31 (53.4%), 6-10 years of experience 30 (73.2%), and 1-5 years of experience 11 (91.7%).

The 310 teachers who had participated in assessment workshops were asked about their usefulness, 40 (12.9%) of them said that those workshops were not useful, 91 (29.4%) said they were of average usefulness, and 179 (57.7%) believed that those workshops were essential.

All the teachers, then, were asked a general question about their desire to participate in assessment techniques training sessions and workshops in the future. Among the 490 teachers who took part in this study, 389 (79.4%) teachers indicated their wish to join any future planned for workshops in assessment techniques, and 101 (20.6%) of them were not interested in any future training.

Finally, the teachers who indicated their desire to participate in assessment training sessions were presented with a list of workshop topics and were asked to tick any topic they

would be interested to cover in any further training programme. The results are presented in Table 7.16. It is clear from this table that 240 (49%) preferred to attend workshops that focus on using assessment methods to develop teachers' abilities in effective teaching, 234 (47.8%) favoured more training on using assessment methods to improve students' abilities, and 187 (38.2%) indicated their interest in methods to assess students' achievement. In fact, for each topic, there were a number of teachers who were interested to participate in related workshops.

Table 7.16

Workshop Topics Preferred in Assessment Methods

Variables / Responses	Frequency	Percentage
Methods to assess students' achievement	187	38.2
The construction of different assessment methods	122	24.9
The application of different assessment methods	155	31.6
Analysing assessment's results	127	25.9
National standardised tests	104	21.2
Using assessment methods to increase students' scores	175	35.7
Using assessment methods to provide students with feedback	141	28.8
Using assessment methods to improve students' abilities	234	47.8
Using assessment methods to develop teachers' abilities to effective teaching	240	49.0

7.3.6.1   Comments about Teachers' Training on Assessment Techniques

Evaluating teachers' training on different assessment methods was one of the objectives of this study. It was important to ask teachers about their views regarding their previous training experiences in addition to their major recommendation for further training in the future. In one of the focus group interviews, the majority of the teachers being interviewed said they had been involved in training sessions about assessment techniques:

> *we participated in most workshops that the Ministry of Education provided*
> *on curriculum and assessment methods. (m-t-v-2-majority)*

Some teachers believed that training on different assessment techniques should be given to new teachers, since they do not have any teaching and assessment experience:

> *It is possible to give workshops in different methods of assessment to newly*
> *qualified teachers who may come to teaching without any experience.*
> *(m-t-v-3-4)*

Another one indicated that some teachers did not have the required skills for the new assessment techniques:

> *some teachers lack knowledge about the new assessment techniques.*
> *(f-t-v-1-1)*

According to one teacher, since there were unqualified teachers and newly graduated teachers working in schools, the ministry provided the test specific plan, in addition to the score distribution standards, to help such teachers in their assessment practices:

> *sometimes they restrict teachers to a specific form of tests, since, honestly,*
> *some teachers are unfamiliar with this part, especially the new graduates,*
> *for example. (m-t-v-3- 4)*

One of the possible methods that a few teachers recommended to help new teachers, other than workshops by experts in assessment methods, was through senior teachers or subjects coordinators, as is done in independent schools in Qatar:

> *the senior teacher or the subject coordinator is a good system, since this*
> *coordinator may have experience and educational qualifications that may*

help the new teachers who come to schools, such as what is achieved in independent schools. (m-t-v-3-a few)

Even students recommended giving more training to some teachers, since one of the students said that some teachers lacked the skills to convey ideas and instruction to students:

some teachers are very good at teaching, but others cannot transmit the information to students. Therefore, teachers should be given workshops whenever possible. (m-s-v-2-4)

There were many topics on which teachers indicated their wish for training workshops. Some of these topics were related directly to modern assessment methods:

we need workshops on the most modern assessment techniques. (f-t-q-6-2)

Other teachers' suggestions were related to subject matters that may increase students' motivations to learn and compete with their classmates:

we need workshops on using assessment techniques to enhance students' incentive to learn and compete with others. (f-t-q-6-3)

Moreover, some teachers preferred to have workshops on assessment forms that could strengthen the relationship between teachers and students through a positive interaction between both of them, to help students be more encouraged and motivated in their own learning:

apply modern assessment methods that strengthen the relationship between learners and their instructors and stimulate them to more effort and hard work. (m-t-q-8-1)

Helping teachers to assess group activities and collaborative work among students through classroom assignments, was another important subject on which teachers preferred to have training:

train teachers in using modern tools and instruments in group activities. (m-t-q-8-2)

Some of the workshops that teachers recommended were related to using assessment methods to help teachers in teaching the curriculum elements and the different academic subjects:

> *using different assessment methods for some of the curriculum syllabi to be in line with current developments. (m-t-q-14-1)*

> *train teachers on new assessment techniques that are used to design the test and how to teach the academic subject in a modern way. (f-t-q-17-2)*

It is also important, in the view of one of the teachers, to create a more respectful and encouraging environment around teachers to implement new assessment forms:

> *help teachers to implement and apply the new assessment techniques by facilitating and preparing the educational instruments for them. (m-t-q-3-1)*

In addition to workshops in assessment procedures, one teacher asked for additional training on a different subject:

> *procedures that teachers can use to prepare for a lesson. (m-t-q-2-1)*

Furthermore, having continuous workshop training on different subjects and topics in education helps teachers to be updated with the recent development in education and its tools:

> *provide teachers with intensive workshops to keep them abreast of developments in education and developed techniques. (f-t-q-1-5)*

7.3.7. Other Comments

Other than the assessment techniques practices and factors that are directly influenced by them, some teachers raised other issues generally related to teaching and assessment practices.

Many teachers complained about their lack of involvement in the teaching and learning process from a different perspective. One teacher explained how his plans and suggestions to develop the current practices were not considered respectfully by others:

> *I wrote a report in the past and sent it, through the Instruction Department, to the Ministry of Education about possible ways to develop my subject, the curriculum, the lessons, and the method. This was a couple of years ago, but nothing was done and the report has not even been studied. (m-t-v-3-3)*

A few teachers agreed with one teacher's comment that their suggestions and comments about some issues that are related to the text book were not paid any attention by people in charge:

> *several times I have written some suggestions and corrections about the mistakes in the text book, and over the years no change has been made and the same mistakes are still in the text book. There are still scientific mistakes in addition to language and grammar mistakes. (m-t-v-3-a few)*

One teacher believed that it is important to design a plan that can help teachers to get insight about the successful teaching practices in schools through transmitting these successive practices through a different medium to other teachers:

> *To transform the common teaching practices. (f-t-q-15-4)*

Taking into account the individual differences between all students was another major element that some teachers highlighted in their comments. A teacher suggested implementing intelligence tests to help teachers classify students according to their different abilities. He thought this would help teachers to design tests that take into account students' different abilities:

I would like an intelligence test to be administered to every class at the beginning of the school, so that the teacher can identify students who have high and low capabilities. Then, he can take this into consideration whenever he designs a test by including a set of questions that measure all abilities. (m-t-v-3-4)

Other teachers believed that it is essential to consider the individual differences between students whenever planning to assess students' achievement in classrooms:

when planning for assessing students' attainments, the individual differences between students should be taken into account. (m-t-q-13-2)

An interesting plan to look at students' individual differences was outlined by a one teacher. She argued that it was necessary to divide students into sub-groups according to their achievement abilities. According to the same teacher, this would help teachers to modify their instruction and teaching plans to sub-plans that consider all these different abilities. In addition, different assessment forms could be used for different groups to ensure that assessment suits the different abilities:

we need to consider the individual differences between learners by dividing them into different groups according to their performance level. This may help us to treat each group individually, and use different assessment methods according to their ability. (f-t-q-5-2)

Another teacher suggested that schools should encourage parents to be involved effectively in their children's' education. This could be done by sending the parents a monthly assessment report to assist them in understanding their academic progress:

Involve parents to follow up with their children's achievement progress through monthly assessment reports. (f-t-q-18-5)

Another important issue that some teachers commented on was teachers' motivation. According to one teacher, no respect is given to the hard work teachers do in schools:

If any teacher works hard to do his/her best, nobody will care about him/her and appreciate his/her work. (m-t-v-2-1)

Another teacher indicated that it is important to encourage and motivate teachers to develop their subject-knowledge:

> *encourage and motivate the teacher to develop him/her self and progress in his/her academic subject. (f-t-q-1-5)*

In addition, one of the factors that help to increase teachers' motivation to teach is the challenges they might face during the teaching process. A group of teachers agreed that the learning process is not confined to students alone, since they feel that their interaction with the learners usually encourages them to update their knowledge by researching for new information and discoveries:

> *some talented students may ask questions that encourage me to look for the information and the answer by reading books and do some research. Therefore, the learning process is an interaction process between teachers and learners. (m-t-v-2-a few)*

7.4. Conclusion

This chapter has explained the main characteristics of the participants who took part in this study. The participants were from various secondary public schools, boys' and girls', and with a range of qualifications and from various subject areas. Of the 490 teachers who answered the questionnaires, 82 had a Licence, 395 had a Baccalaureate, 9 had Master's degrees, and 4 had a Ph.D. The main subject concentrations were Mathematics (83), English (78) and Arabic (77), in addition to the other various subjects. More than half the sample (282) had over 15 years of teaching experience, and relatively few (23) were less experienced, having taught for 1-5 years. Most of the teachers had between 26 to 37 students in their classes. In addition to the questionnaire participants, some teachers of both genders, besides students, were interviewed.

The survey data and interviews analyses went to different stages. First of all, the data were analysed though tables by presenting the frequencies and percentages to each section in the study, and statistical tests were implemented to examine the relationships between the various variables, and according to this type of data, Chi-square and Cramer's V tests were employed to determine these relationships and its significance.

After that, teachers' comments on questionnaires and interviews, besides students' comments on interviews, whenever applicable, were presented to have a view about their responses to several questions regarding assessment practices in schools.

The next chapter, discussion, will provide answers to the main research questions, in the light of the results presented in this chapter, as well as relevant literature.

Chapter 8

Discussion

8.1. <u>Introduction</u>

The purpose of this chapter is to discuss the main findings from the results presented in the previous analysis, in order to answer the major research questions of this study. Each research question will be presented at the beginning of each section, followed by a detailed discussion of the relevant findings from teachers' responses to the questionnaire and in focus group interviews, besides the relevance of these findings in relation to previous findings from other studies, whenever applicable.

The first section will discuss teachers' perceptions of their skill with the various assessments, followed by their application of the different assessment forms. After that, the discussion will focus on factors that affect teachers' assessment practices and how those elements influence their practices on the sources of their tests, and the cognitive abilities being assessed. Then the focus will be on elements concerning educational objectives underlying the assessment application, students' engagement in the assessment process, assessment effects on them, and teachers' training on assessment methods.

8.2. <u>**Research Question 1**</u>

What are teachers' current perceptions of their skills with the different assessment techniques?

Many teachers indicated they were skilled with most of these forms, except drawing questions, individual interviews, and students' self and peer assessments, with which a large number of teachers perceived they were not skilled (Tables 7.10A and 7.10B, pp.192-193). The tests of association between the variables showed that teachers who were females, taught languages, and had over 15 years of experience mostly had higher skill perceptions than the other groups (Tables 7.10C and 7.10D, pp.196-198), but no strong effect sizes were found between these variables. This leads to a conclusion that variables such as teachers' gender, the subjects they teach, and their years of experience play some role in teachers' perceived skill with those various assessment methods, and teachers' perceived proficiency in various assessment methods differ according to the three factors being discussed.

Teachers' perceptions that they have less proficiency with these types of assessment forms may be because some of them are new techniques that have been introduced in recent years in the area of educational assessments. Moreover, it is understandable that teachers may have fewer skills in students' self and peer-assessments, because these types of assessment forms are modern techniques, which have been discussed in the last decade, but may not be applied as widely as other methods. In the case of those teachers who perceived they were proficient, their responses could represent their actual assessment work in schools. Teachers usually construct their own tests that centre on basic traditional forms.

Therefore, teachers may perceive themselves to be more experienced with these forms, since the regular construction of such test forms and continuous application of these specific types of test in their own-made tests, year by year, could lead teachers to be more knowledgeable and skilled with these forms.

However, even if teachers believed they were proficient in various assessment forms, this does not necessarily mean that they are actually proficient or represent their actual understanding of the appropriate and scientific way to write such items. Teachers may practise test constructions over time, but their actual construction of tests may not be in a technical manner if they are not supported with external assistance and other advice, as well as being provided with different resources about formal and informal assessment techniques. Some teachers may have considered themselves proficient in these items because they used them all the time in their tests, but in fact some of them may have been writing some of these items in an inappropriate way and made the same mistakes year by year. A similar issue was raised by Black & Broadfoot (1982) regarding teachers' actual understanding of the great benefits of assessment and the various ways of employing them in different situations.

For the teachers who said they were not proficient in the various assessment forms, this could be related in part to teachers' qualification, since statistics (p.42) showed that almost 676 teachers in secondary schools, of whom 64% are males, have no qualifications in education. Such teachers may have not received training in assessment. Besides, the lack of training courses in assessment for teachers of various subjects will make it harder for teachers, especially those without any education background, to keep up with recent developments in assessment practices and technical aspects of assessment application. Besides, teachers asked to be provided with various sources of assessment techniques and

guidelines on the appropriate method to implement any specific assessment procedure. This agrees with the results from previous studies (Abbara, 1991; Goniem, 1992; Bushurbak, 1993) that indicated teachers' lack of assessment and evaluation experience, especially in views of the lack of training programmes to introduce new assessment methods, such as formative assessment.

Therefore, relying on teachers' beliefs about their current skill level with assessments alone is not enough, since these perceptions could be affected by teacher' desire to present themselves as very able teachers, and other figures and information should be considered in such evaluation. Teachers' training in assessment techniques is another possible and effective method to enhance teachers' expertise and skill in various assessment methods. More information about teachers' training on assessment will be discussed comprehensively in the answer to the last question, which deals particularly with this point.

8.3. Research Question 2

How frequently do teachers think they apply the various assessment techniques?

A great number of teachers indicated they always apply the different assessments, formal and informal. However, a number of teachers signified that they sometimes or never applied these assessment methods, especially drawing questions, oral questioning, self and peer assessments. It appears that most teachers who believed they were not skilled in test and assessment forms, besides those who did not know their current proficiency (Tables 7.11A and 7.11B, pp.201-202) also indicated they never applied those forms in their classroom practices. This is an expected outcome, since teachers who perceived they were not skilled or did not know their ability in the first place, would tend to not employ these methods in their tests of students' academic performance. And if teachers' lack of

education qualifications is considered, then it is possible that teachers who had no or less experience in the different assessment procedures would have less inclination to use them in their test. In addition to these factors, another major influence came from the test plan that specifies the types of test items that should be employed in tests.

In addition, teachers' gender, years of experience, subjects they teach, and the number of students in the class plays an important role in shaping teachers' current application of some assessment techniques in secondary schools with varying degrees from one factor to another. Tables (7.11C, and 7.11D, pp. 204-206) confirmed these factors' influences, even though the effect sizes for most variables were mostly moderate in nature, since Cramer's V values for all relationships were less than 0.30. Female teachers tend to apply the various assessment techniques more than male teachers; teachers with over 15 years of experience were shown to always apply some assessment techniques more than other age groups; teachers who had between 26 and 31 students tended to use specific assessment strategies more than others; and teachers of particular subjects tended to use some particular assessment techniques.

Teachers' application of the different assessment forms may be seen, through the research findings, as an individual practice of some teachers who may consider the use of some specific forms as part of their assessment plan and may be more motivated to look for more assessment techniques, or their supervisors may support them to introduce new methods. There is no specific procedure that all teachers pursue in applying the alternative assessment techniques. One of the teachers indicated that she employed more than five different methods to assess learners' capabilities, while other teachers indicated one or two kinds of assessments. Other teachers preferred to use projects, reports, and research papers in order to be more practical and to encourage students to use their thinking abilities to

produce work that has more benefits for them rather than, memorising and copying answers from the text books.

Some teachers showed more responsibility toward their learners by implementing assessment strategies that have formative aspects, even though some of these strategies were recently introduced in the assessment literature, such as students' self and peer assessments, and individualised instruction. Students also indicated that they sometimes had the opportunity to assess themselves and their peers according to teachers' plans. This means that some teachers have the willingness to develop themselves and to look for knowledge by themselves, to investigate new assessment tools and teaching methods. Those kinds of teachers are self-directed and self-motivated, bringing to the classroom practices new ideas and instruments that may help in progressing students with different abilities. This finding confirms that some improvements have been made to the type of test item forms being used in schools' tests. Previous researches (Abbara, 1991; Goniem, 1992; Bushurbak, 1993) indicated that essay questions were the major test form in classroom achievement tests. However, in this study, what was found is that more test items and multi assessment methods were employed in teachers' assessment of students' attainments.

Revisions of the current assessment plan were recommended to make improvements to accompany recent developments. The same demands from teachers and professionals were found in previous studies (Abbara, 1991; Goniem, 1992; Bushurbak, 1993). The validity of formal test forms and questions provided in the main text books was questioned by some teachers, because they are used to examine learners' performance. Others viewed the existing assessment plans as a routine process, out dated, restricted to old methods, and ignoring modern assessment techniques. They believed that relying on traditional techniques produces passive learners who mainly focus in memorising facts and

information for their tests. The assessment of teachers' application of the different cognitive abilities in tests (Table 7.12E, p.227) showed that most teachers assess knowledge and comprehension, while fewer teachers assess the other high-thinking abilities. Their comments confirm their responses to the questionnaire, which are similar to results found in the studies by Abbara, (1991), Goniem (1992), and Bushurbak (1993). Studies in other countries (Sternberg, 1989; Brady, 1997; Kaasbøll, 1998; Black & Wiliam, 1998) found the same dilemma in tests with high stakes. They recommended that the current methods should be replaced with more comprehensive methods, incorporating new assessment strategies that encourage creativity in classroom and assess high-level abilities. These procedures, according to teachers, should support practical activities in different subjects through the use of various resources, such as laboratories and libraries, besides promoting students' application of real life skills inside and outside the school environment.

Frequent testing of students' progress was another suggestion to provide learners with marks and give valid indicators of their actual performance in the different stages in the learning process. In fact, both teachers and students concurred on the advantages of continuous testing through the school year and a favoured introduction of such an approach in schools. However, there are no instructions to apply these techniques in their assessment plans, which as a result make them rely on formal methods. Teachers confirmed that the current assessment regulations, in addition to other factors, prevent them from implementing new assessment strategies in their classrooms.

This study showed also alterations in teachers' attitude toward frequent testing, since teachers in previous studies indicated that the testing workload was one of their major problems (Abbara, 1991; Goniem, 1992; Bushurbak, 1993), whereas in this study, this was not seen as a major problem for teachers and even students. They actually asked for more continuous testing in the classroom, since they believed it is beneficial. However, many other assessment strategies that do not involve testing are also beneficial, such as formative assessment and its various tools, but because teachers were not aware of the new assessments and/or could not apply them because of the test specifics plan and score distribution standards, they did not indicate them as a preferable technique. A few teachers questioned the validity and reliability of the tests, since they believed they clues to the right answers. This could be an effect of teachers' appraisal based on students' scores on tests, whereby low marks will be considered as indicating teachers' failure to transmit information to students.

The participants specified the importance of considering modifications to the curriculum intensity and teaching time, whenever it is planned to implement new assessment policies. These issues too were raised in previous studies (Goniem, 1992; Bushurbak, 1993). The test specifics plan has a major influence on teachers' ability to implement various assessment strategies in classrooms. The number of students in the class was another factor that affects teachers' practices. The following section gives more detail regarding these factors by answering the third research question about factors that influence teachers' assessment practices, and teachers' views on possible ways to improve current weaknesses.

8.4.   <u>Research Question 3</u>

What are the major factors that influence teachers' assessment practices?

As seen in the previous section, teachers were willing to apply the various assessment procedures. However, there are some factors that may affect their ability to implement any new assessment strategies they are aware of. Table 7.12A (p.218) showed that the large number of students in the classroom, the curriculum workload and students' low achievement level were the main factors that negatively influence teachers' assessment practices, besides other significant factors presented in the table.

Women were found to be more affected by the curriculum workload. The reason for this could be the type of work that is given to them. They might have more responsibilities than male teachers according to the curriculum syllabi, or assigned by their supervisors. In addition, teachers of Languages were more affected by the curriculum workload than those of other subjects. However, men were found to be more affected by the testing workload and insufficient training on assessments, and again this could be related to the number of male teachers with no qualifications in Education, which was higher than that of females. In addition, teachers of languages were more affected by the curriculum workload, the testing workload, and students' low achievement level, while teachers of social studies were more affected by compliance with the assessment plan specifics and the score distribution standards. This could be related to the school advisors' regulations and/or the subject sections at the Curriculum and Textbooks Department who are responsible for setting targets for their subjects and the way to achieve them. The following sections will provide detail about these variables.

8.4.1. The Curriculum Workload and Insufficient Teaching Time

Usually the curricula and syllabi specify many materials and topics that should be covered during the school year. These topics represent the instructional objectives set to ensure that by the end of each stage, students will gain the intended objectives and master the planned skills. The teaching time, accordingly, should be adequate to enable teachers to cover all the materials in the text books, in addition to using the various assessment techniques to ensure student attainment of the proposed objectives and to grade their work and tests. Besides, teachers need to encourage students to participate, comment on learners' questions, and plan for instruction that meets each student's needs.

However, problems occur whenever the given teaching time does not help to implement all these instruction plans and assessment strategies in classroom. Therefore, this study found that the teaching time given to cover all units in the text book was thought to be insufficient to cover all the topics, according to most teachers' comments. The same point was made by Popham (2007). Teachers are obliged to cover all the syllabi, and in the available time, it is not possible to do that without influencing other elements, such as providing students with feedback and considering all students in the assessment process. Teachers feel that they are in a continuous race, throughout the school year, to finish the curriculum syllabi within specific time limits, even though this may harm students' ability to achieve the objectives behind the curriculum content. They feel sometimes that there are some specific curriculum areas on which they need to spend more teaching time. As a result, some teachers reported that they were compelled to ask their colleagues to give them some of their own lesson time, to enable them to cover the remaining curriculum components.

Besides, the teaching time limits and curriculum coverage obliged them to speed up to cover all the materials and topics within the given time, to the detriment of some students, especially those with learning difficulties and/or low achievers. Similarly, other studies (Marshall, 2007) have indicated that curriculum workload and teaching time-limits hinder teachers from implementing their potential capacities to afford learners every possible benefit. Others (Popham, 2007) indicated that teachers tend to concentrate on teaching topics expected to appear on tests, since they do not have time to cover all areas.

Lindvall & Nitko (1975) signified the importance of managing the teaching time effectively as way to progress the major elements in the teaching and assessment process. They indicated that some assessment techniques, for instance, individual interviews with students, require a significant amount of teachers' time. This is because these types of procedures require teachers to give every student sufficient attention and care to answer their questions related to the subject matter or concerning the difficulties they may encounter during their learning progress.

Questions in the textbooks were said to have some grammatical mistakes and unclear ideas, which could affect students' responses if used in tests. The same problem was found previously in studies that focused on the validity of questions presented in some school text books in Qatar (al-Mulla & Al-Sulati, 1999; Al-Emadi, 1998). In fact, these questions are provided to help students revise each unit individually to find out what is unclear to them, but some teachers tend to use some of the questions at the end of the chapters as one source in their tests, and with invalid questions it is hard to achieve this objective. Moreover, providing teachers and students with invalid and inaccurate questions in text books may harm both of them, and make it more difficult to achieve the objectives behind the presentation of these questions.

8.4.2. Compliance with the Test Plan Specifics and Scores Distribution Standards

This study found that the ability to use alternative assessment methods is not in teachers' hands, since they are obliged to follow the strict rules of test plan specifics and score distribution standards provided by the school advisors. Teachers are required to follow these rules whenever they plan their own assessments, so their involvement in the assessment plan is limited to some guidelines, including questions that should be constructed, types of cognitive abilities to assess, assessment methods to be used, actions following the assessment results, and scores given to a particular assessment method. Teachers actually have their own plans to implement new assessment strategies, but these plans may conflict with advisors' plans. However, a teacher noted that school advisors usually welcome any suggestions regarding the assessment plan, and others confirmed their application of new assessment techniques, such as students' self and peer assessment, besides using other formative tools in the classroom setting.

Teachers also asked for instructions and guidance to help them in constructing their own tests and employing new assessment techniques whenever possible. They believed that their direct involvement in students' learning day by day should be accompanied with more involvement in planning for their students' assessments. This is not the case in actual practice in schools, according to teachers, since they may be blamed if they use assessment procedures different from those advocated by advisors, which, as a result, may affect teachers' final evaluation report at the end of the school year. The same conclusion was found in previous studies (Marshall, 2007) that focused on teachers' involvement in the assessment process. These studies signified that most teachers have their own ideas, based on their teaching and assessment experience, besides their frequent reading of the literature.

However, when it comes to the actual practice in their schools, they rarely have the chance to apply and experiment what they believe to be valuable (Marshall, 2007).

The study also found that the score distribution standards also have effects on teachers' employment of assessments. The score distribution standard that is distributed by the advisors states that 10% of the total mark should be given to students for their participation in classroom activities in each semester. These activities include classroom and homework assignments, participation in oral questioning, individual and group activates, besides short tests, quizzes, and other activities that teachers may use in class. On the distribution of this percentage, just 5% of the 10% is used to reward students for their actual participation in classroom activities in each semester, and the remaining percentage for their score in short tests and quizzes. Some teachers use this percentage not to reward learners for their actual commitment to classroom activities, but according to students' personal behaviour in classes and the extent to which they comply with school rules and regulations. Therefore, even the 10% that is given to students to encourage them to participate in various classroom activities is not employed in the intended manner.

Besides, with regard to the various activities implemented in classrooms, teachers believed that 10% of the total mark is not adequate to reflect students' participation in the different activities that they may involved in. They thought it should be increased, to encourage learners to engage in various activities. Complying with these standards prevents teachers from implementing new assessment strategies or any other methods that may be effective for students' learning. These standards give no choice to teachers to give extra marks to students according to their engagement in activities or in short tests and quizzes. Even the teaching methods are affected by these standards and regulations. Teachers tend to

measure their students' academic achievement through the application of tests, without any motivation to employ practical assignments to assess actual attainment in various subjects.

And even if teachers were to implement new planned activities in their classrooms, the majority of students would not participate in them unless these activities were accompanied with marks. Marks appeared to have great effects on learners' aspiration to be involved in activities. This finding is consistent with other researchers' findings that marks reinforce learners to be more active in class, since they reward their positive attitude (Kaasbøll, 1998; Wentzel, 1991). To encourage students to be involved in activities, most teachers suggested that old methods, such as tests should be substituted with alternative assessment methods. These new procedures could include projects and researchers, and these methods should be implemented in schools and accompanied with marks, so that students would be motivated to engage in such activities. Such practices have been advocated by some studies (EPPI-Centre, 2002; Black & Broadfoot, 1982) as influential practices to alter learners' attention from looking for marks to more effective participation in activities.

Furthermore, teachers signified the importance of considering a new score distribution plan that gives a higher percentage for the activities. Some of them believed that there should be a variety of assessment plans that take into account each school's needs, since one plan cannot fit all schools' requirements. They indicated that they should be involved effectively in planning for assessment and score distribution standards through active cooperation with other officials, since they were directly involved in students' learning. They asked their recommendations for improvements in assessment plans to be considered, and asserted that more freedom should be given to them to design their own assessment plans that suit their students' needs. Finally, they noted that any

recommendations teachers suggest regarding any improvement in assessment plan should be considered by planners. Indeed, previous writers have suggested that teachers be involved more in their learners' education (Garet, et al., 2001).

8.4.3. Effects of Other External Factors

The large number of students in the classroom and their low achievement level were among the variables that showed significant effects on teachers' assessment practices. Almost 50% of the teachers said they had between 26 to 31 students in their classes. Actually, this confirms the Ministry of Education figures concerning the number of students in classes. The statistics for education year 2005/2006 for secondary schools showed that the average number of students per school is 404 in boys' schools and 387 in girls' schools, and the average number of students per class was 29 for boys' schools and 30 for girls' schools. Moreover, the average number of students per teachers was 10.5 for boys' schools and 8.3 for girls' schools, and the average number of teachers per class was 2.8 for boys' schools and 3.6 for girls' schools (The Annual Statistical Report, 2007a). Teachers indicated that this negatively influences their ability to be more effective in teaching. Similar findings were found in some studies (Blatchford, et al., 2001; Graue, et al., 2007) which declared that, with a large number of students in the class, teachers' chances to implement educational activities and have more flexibility in class will be reduced. Besides, trying to follow up every student in such cases will be a heavy workload for teachers, in addition to the curriculum workload. Teachers indicated also that some students advance to new grade levels with deficits in fundamental skills in some subjects, which are important to enable them to keep up with their peers in the following grade level.

Another dilemma faces teachers who try to equip students with new skills appropriate for their specific grade, while some of them need to be trained in the basic skills. Such situations make it harder for teachers to implement new assessment strategies that require advanced skills and abilities. Besides, teachers declared that students' low achievement forces them to assess lower abilities and ignores high-order thinking skills.

In addition, a few teachers believed that the current instructional methods depend on traditional tools that transmit knowledge and ideas from the teachers to students, and for this reason the assessment plan employs procedures that match this type of teaching method. In fact, even students confirmed that information technology is not involved practically in the curriculum. These situations led teachers to recommend the implementation of new teaching strategies, for example by encouraging the intensive use of computers in schools. If they were done, the assessment plan, consequently, would be altered in line with changes being made in the teaching method(s).

The testing workload was not a major concern for teachers, unlike what was found in previous studies (Goniem, 1992; Bushurbak, 1993). One reason for this is that two major examinations occur at the middle and end of each semester, and these examinations are the only examinations that take place during each semester. Even students thought continuous testing would improve their learning, since it would encourage them to keep studying for their tests and quizzes. Therefore, a few teachers recommended continuous assessment implementation in schools for the benefit of teachers and learners. However, those who indicated that tests had a negative effect on their practices may have suffered from the testing stress. This begins when teachers encounter the pressure of mid-term and end of term exams, which are high-stakes tests that have major influence on teachers' appraisal and students' future outcomes.

Since teachers are obliged to finish the syllabus in each subject examined, they sacrifice their effort and time to cover all the material within the limited teaching time, even though this may limit the opportunity to give feedback to students. The same negative influences were found in some previous studies (Satterly, 1981; Brady, 1997; EPPI-Centre, 2002; McNess et al., 2003; Marshall, 2007).

Students too, realize the importance of such tests, since with only 20 per cent of the total mark given to participation in activities and short tests, mid-term and end of term examinations are the main sources of marks available to them. This leaves tests as almost the only means of assessing learners' attainment progress. Furthermore, students' scores on these two examinations determine whether they will advance to the next grade level or remain in the same level for an additional year.

Teachers also noted the insufficient awareness of the different assessment methods and insufficient training on assessment methods as additional factors that affected them. Educational qualifications may have an influence here, since the statistics showed that many teachers did not have an education qualification, especially men (see Ch.2, p.42). These findings support the similar results found in other studies about the lack of assessment knowledge and lack of training (Goniem, 1992; Bushurbak, 1993). Teachers' familiarity with different assessment techniques is essential if they are to use them in their classes in different situations and for students of different abilities. This familiarity can be affected seriously by the training provided to them on assessment methods, especially for teachers who have no Education qualifications that would help them to apply the techniques and strategies studied in pre-service courses.

8.4.4. Internal Factors

The findings showed that teachers use students' activities inside the classroom as major indicators to form their expectations about students' future performance. These activities are classroom and homework assignments, current scores on tests, and contribution in class, besides students' motivation to learn (Table 7.12C, p.223). Strong associations were found between teachers' gender and teachers' expectations, and moderate correlations with other variables.

Students' participation in classroom activities are valid indicators of students' achievement, and may help teachers form realistic expectations about students' future performance. However, fewer teachers indicated they used previous certificates and other teachers' expectations as source to form their expectation. Studies (EPPI-Centre, 2002) have shown that such expectations affect students' attainment. Previous certificates and other teachers' expectation have no relationship to students' existing achievement. They can be used, besides students' personal behaviour, to design remedial plans for students who may lack basic skills, have learning difficulties, or have behaviour problems, and to determine the proper feedback that should be given to students (Sadler, 1998; Nitko, 1996; Kubiszyn & Borich, 1993). Also, focusing on students' behaviour, especially negative behaviour may cause teachers to behave differently towards these students by ignoring them and reducing their participation in classroom activities. These last variables may lead to invalid expectations about students' academic performance and could alter teachers' attention to specific students who really need their help and support.

Teachers' own-made tests were found to be the major source of classroom tests, followed by the text book (Table 7.12D, p.225). Other materials, such as other teachers' tests, the guide book, and external books, had less degree of benefits. There are two cautions to be considered here. The first one is that teacher-made tests are important, since teachers might be expected to be the most able persons to assess their own students. However, if teachers do not have the knowledge and understanding, whether from lack of qualifications and/or lack of training, to construct tests, then it is harmful to let them design their own tests. The other caution is regarding the textbook, since 81% of the teachers indicated they considered it as source of test-items. The textbook questions may lack validity and reliability to be used as items in assessment. They were designed for students to practise and read the textbook, not to be used for future tests. Some teachers even commented that the textbook questions should be evaluated to check their validity. Other teachers indicated that some textbooks have grammatical mistakes and unclear ideas, and they should be considered for revision. The same problem was found previously in studies that focused on the validity of questions presented in some school text books in Qatar (al-Mulla & Al-Sulati, 1999; Al-Emadi, 1998). The same doubts on the validity of test-items apply to tests from the internet and commercial books, since some teachers indicated their use of such sources. A large percentage of teachers (50%) indicated they never used the teachers' guide book, even though this book is well constructed by professionals in education and assessment, and is well designed to meet teachers' needs regarding teaching methods, instruction, and assessment by providing sample tests. One possible reason for that could be that the book is not available for some teachers, or even not in the school library. Lack of resources about the various assessment methods other than the traditional testing methods have been indicated in some research findings (Lane, 2004).

8.5. **Research Question 4**

For what purposes are assessment results used in schools?

According to teachers' responses, assessment in schools is used for multi-purposes; determining past experience, measuring attainment of a limited segment of instruction, diagnosing students' strengths and weaknesses, providing students with feedback, besides assigning grades to learners. However, few of them indicated the use of assessments to evaluate students' attainment of the fundamental skills. According to teachers' comments, assessments as represented by tests are used in secondary schools for summative evaluation of students' achievement. Students have to take four tests a year, two in the first semester, and the second two in the second semester. These tests are critical to students' future progress, since they must pass these tests to pass the year and proceed to the next grade.

Some teachers believe that there is no use of assessment in schools to assess students' attainment of the fundamental skills. Information gathered from such assessment can help teachers to understand the actual skills and abilities of students, and according to this information, design appropriate instruction that suits students' current needs, rather than proceed in teaching new and more advanced skills, while students have not yet achieved the very basic ones. Poham (2007) indicated the importance of such planning at the beginning of the school year, when students are still on the first step of the learning process. This could be done by assessing attainment of fundamental skills and determining students' past experience before the beginning of the instructional process. However, with strict regulations through the assessment plan specifics, it is hard for teachers to proceed with such a practice without the agreement of school supervisors.

Mostly, what is happing in schools' assessments is assessing students' attainment of objectives related to a limited segment of instruction that was taught before the mid-term and the end of term exams. After that, students are awarded marks to move them from one grade to another, or graduate them with the final school certificate. Diagnosing students' strengths and weaknesses and instructional feedback processes in such cases is limited, since it comes after a period of time. The feedback is usually given after the mid-term exams, or at the beginning of the second term. However, this feedback is about students' mistakes on tests and the correct answers that should have been written, as students indicated in the interviews. Even this type of feedback is usually done to the whole class, and rarely given on an individual basis. Such feedback will have little or no benefit for students, because the material they were tested on will not be presented to them again, because new material and another segment of instruction will be taught after that. Previous studies (Black, 1997) questioned whether tests actually could provide such informative feedback to learners.

Without continuous assessment through the school year, day by day, week by week, and month by month, there is no such formative feedback to give students. A delayed feedback after three months of learning will not add anything to students' experience, and no benefit will be gained, since the students by that time have already been awarded marks and there is no opportunity to remedy the weaknesses. Therefore, absolute marks are all that students get from such a testing procedure. In fact, one of the teachers questioned the availability of assessments that give feedback other than tests.

This does not by any means, imply that teachers are doing nothing. A few teachers noted their application of different assessment methods that reward learners with positive feedback. Some teachers indicated their use of quizzes and short tests to gain an idea about

students' progress. Nevertheless while there may be some individual attempts to give formative information to students, these practices depends on the motivation of the teachers concerned, and to the time available. Teachers are encouraged, through the regulations and rules, to explain to learners their weaknesses and possible ways to overcome them. However, according to teachers' comments, with such a heavy curriculum workload, the routine, teaching time limits, the large number of students in the class, traditional testing methods, besides strict assessment regulations, it is hard for teachers to achieve all these objectives, and follow up all students with different abilities and to differentiate instructions to accompany each student needs .

8.6. <u>Research Question 5</u>

How are students involved in the current assessment practices?

8.6.1. Students' Involvement in the Assessment Process

Students' involvement in the assessment process means their understanding of the intended instructional goals to be met, the criteria by which their achievement will be assessed, the weighting of each item in the assessment method, their progress in achieving targets, and other important information (see Table 7.14A, p.252). It was found that teachers of languages were more interested in clarifying the grading scale for test items and explaining to students their progress toward achieving targets, than those of other subjects. Teachers' understanding of intended goals, successful planning of instructional materials to reach these goals, and clearly transmitting these goals to learners help them to progress positively in their learning (Brophy, 1986).

All those previous elements are important to be understood by learners, since they will have future effects on their learning. Many students, even sometimes, the successful individuals, have a tendency to attribute their success or failure during the learning process to external variables, such as innate abilities and luck (Marshall, 2007). These false impressions and beliefs about their genuine abilities, especially for low achievers who get low scores on tests, could lower their self-esteem, and, as a result, lead them to be more passive and less engaged in classroom learning. Therefore, involving students in assessment practices may help in encouraging learners to be active players in their learning progression. Their effective engagement in setting goals and objectives with the help of their teachers, recognising the intended outcomes of the final process, and assessing the level of progression within every stage of their learning, will produce well managed and active learners that accredit their success to their own efforts and effective planning, rather than any other variables.

Simplifying the specific educational objectives that should be achieved by learners at the end of each stage during the school year is an essential practice that should be encouraged in schools to ensure that learners understand clearly the main goals of the learning process and targets that are set to be met at the end of the schooling time. Clarifying test and assessment criteria by which students' activities and productions will be evaluated is one important technique that should be implemented in schools to help learners understand the assessment process during the school year. The clarity of such standards can help students to plan for future assignments and tests, and to seek further information on those aspects that they do not understand.

Discussing test and assignment rubrics with students is another method described in the assessment literature as a successful procedure to encourage students' self assessment and to signify their involvement in the assessment process (Sato & Atkin, 2007). In this procedure, teachers move from the verbal presentation of the general requirements to pass tests and assignments and other procedures that teachers may employ to measure students' progress, to more comprehensive and understandable information. Explaining each assignment and assessment rubric to students helps them to understand what is required of them and the score given to each stage during this process. Besides, the constructed rubrics will help students to revise their work against the rubrics syllabus and to determine the requirements of the assignments.

Providing students with previous projects, assignments, and tests of prior peers is another possible method that could be used to involve students. By exposure to successful and unsuccessful examples of earlier work done by students in recent years, students can get some feedback about the appropriate ways to handle current work. It may aid students to understand what are the effective procedures to apply, recognise common mistakes, and comprehend possible ways to produce successful work and overcome similar situations.

All these previous practices may help in more involvement of students in their learning and may encourage them to be more effective, well organised, and self-directed, to be responsible for their own learning. Also, these procedures, besides treating students with respect and appreciation, may increase students' self-esteem and self-confidence and help them to master the required skill and abilities, which, as a result, will produce more practical and active learners.

Teachers' responses and comments showed that they implement these strategies in classroom settings, to ensure students' comprehension of such aspects of their learning. Besides, learners themselves indicated their participation in such activities with their teachers. However, fewer teachers indicated their use of students' self and peer assessment to involve learners in assessment practices. One reason for this is that these types of assessments are among the main components of formative assessment, which is a new assessment technique, the central aim of which is to provide students with assessment for their continuous learning benefits. This type of assessment was first introduced in 1998 through Black and Wiliams' reviews (1998). Therefore, teachers' responses on these two variables may reflect their unfamiliarity with these new kinds of assessment methods.

Also, the results showed that teachers tend to focus on aspects related to testing situations, such as preparing learners for tests, dealing with test papers, and training on answering previous examinations and sample tests. This could be normal practice by teachers, since most of students' total mark, 80% depends on their marks on tests, while just 20% of the marks are assigned for students' participation in non-test activities (see ch.2, p.32). Therefore, teachers tend to focus on the ways that might help students to be ready for test situations and to be sure that they are well prepared to deal with the test papers, which as a result could help students to pass tests.

However, a significant number of teachers indicated that they sometimes or never apply these instructions in classes, and a few interview comments confirmed this. This behaviour could have effects on students' learning, since without knowledge and information about the intended targets, possible ways to achieve them, and method of evaluation, it may be hard for learners to follow up their learning. Without such information being provided to learners, they will have no criteria by which they can evaluate their

academic achievement and their attainment of the targets. Teachers' responses in relation to such practices could be due to lack of information regarding the intended objectives, and instructional plans to achieve them. Satterly (1981) indicated that teachers' understanding of the target objective helps them to design effective plans for their practices.

Again, teachers' qualifications could play a major rule in such situations, since without any past experience from pre-service training, besides lack of in-service training courses, it would be difficult for teachers to implement these strategies in schools. Also, teachers' practices in this respect can also be seen as reflecting an individual interest in such activities, but, since they were not obligatory, practice differed from one teacher to another.

8.6.2.   Students' Benefits from the Assessment Results

Another important issue investigated was learners' benefit from the assessment results, and the way teachers' respond to their learning difficulties and current needs. Teaching should support learners with various strategies and plans to strengthen the positive elements in their thinking, and remedy their weaknesses, with instructional feedback given by their teachers. It is in this way that students get the support to aid them to overcome any obstacles, and to understand what they need to do to keep up with their peers. It is the heart of the learning process.

Teachers' answers (Table 7.14B, p.253) showed that 87percent of them re-explain the topics that learners could not comprehend, according to the results. However, the percentages for other functions of teachers, such as providing gifted students with advanced instruction material, designing and giving remedial work and explicit plans for students who lack prerequisite skills and learning difficulties, were smaller, and smaller still for

298

modifying the instructional plan according to students' needs. Also, a large number of them indicated they sometimes or never employed these feedback techniques, including re-explaining the instructional elements and providing learners with remedial plans.

Some teachers explained that the reasons for this are because the teachers are not actually involved in the assessment plan and process. They indicated themselves as passive receivers of what is provided by school supervisors and the assessment plan specifics. Some of them even indicated that the supervisor may help teachers in suggesting remedial plans for underachieving students. Some signified the importance of continuous assessment, since it helps to diagnose students' educational progress from the beginning until the end of the school year. Some teachers, again, pointed out the effects of the curriculum workload and teaching time. Because teachers are usually assigned too many topics to be taught during the school year, in limited teaching time, teachers cannot follow up each student individually. They must finish teaching all the topics within the teaching time given to them, even though this may affect the feedback that is given to learners. Teachers showed their wish to help those learners with learning difficulties to tackle their weaknesses, and pursue high-achieving students who need more advanced instruction and materials. However, the curriculum workload and teaching time limit hinder them from providing all this support.

Giving students specific marks on achievement tests, whether high-stakes tests or teacher-made tests, may help them to compare their current results with previous performance on past tests. In addition, they may go more further to compare their academic progress with that of their peers from the same class or others. For these test results to be more useful for them, learners should understand why they got those specific marks on the achievement tests, and what deficiencies they encountered, which led them to those results.

Understanding their particular strengths and weaknesses may help them to reinforce their strengths in future practice and find remedies for their limitations. Similar conclusions were reached by Rowntree, (1977), Marchant & Paulson (2005), and Crane (2002).

However, these ideas apply to assessments where students can benefit directly from immediate feedback about their performance, for example, when teachers use short tests and quizzes during the week or after completing a specific segment of the text book. This practice helps teachers to assess whether the learners have mastered the intended instructional outcomes. After that, if the tests results show that some learners need more attention because they did not achieve the planned skills and abilities, teachers may plan to design specific instruction to meet these needs and provide them with positive feedback regarding further actions to be followed.

Whenever students' outcomes are determined at the beginning of the instruction process and during the teaching and learning time, students and teachers can have enough time to plan for new strategies that help both of them to solve the problems at hand. However, when those outcomes come after a long period of study or at the end of the course or the school year, there is not enough space for both students and teachers to get the proper feedback from those results to build new effective plans and implement them again in the instructional process.

Finally, the study showed that women showed more responsibility toward students than men in providing those who had mastered the material taught with more advanced instruction and modifying instructional plans according to students' needs.

8.7.   Research Question 6

What are the major effects of assessments on students' learning?

Various elements related to testing motivation and other elements represent more formative assessment qualities. Many teachers indicated that tests motivate learners to get high marks and compete with other peers, which are normally the expected outcomes from traditional testing. It was also interesting to find that assessments were also said to encourage learners to participate in activities, communicate with their peers and teachers, and think effectively, help them to understand their achievement abilities and acquire new skills, and increase their motivation to learn, which correspond broadly to the characteristics of formative assessment (Table 7.15, p.256).

Teachers' comments showed various views on the effect of current assessment practices on students' learning. Some teachers believed that tests encourage learners to revise and study to pass their examination, and without such reinforcement they will not do any revision. Students similarly signified the importance of tests in their learning. On the one hand, tests help them to keep revising during the year and reinforce the keeping of information and skills gained. On the other hand, they indicated that tests help them to memorise information for dealing with exam papers, and without such activity they would soon forget this information.

However, teacher responses showed also that tests tend to increase anxiety among learners, which is similar to other studies' findings (EPPI-Centre, 2002). This could have more influence on students at grade 12, where they are need to get high marks in the final exam, and, as a result, got high total percentage, which could give them access to higher education. Therefore, students strive to memorise information and recall facts to aid them

in the final exams. One teacher explained the influence of this process on learners' minds. She said that:

> *Tests make the student feel afraid, anxious, stressed, and fearing to fail the test or unable to be successful and to obtain the required percentage. (f-t-q-17-1)*

Some teachers commented that students usually forget all the information they have memorise d once the test period ends, which leaves learners with no actual benefits. Others explained that learners always search for topics in the curriculum that are likely to occur in test items, and give no attention to items that are not expected to appear in the tests. This helps to explain why teachers and students favoured continuous testing throughout the school year. Practising tests in class at various times during the year, and imposing such type of assessments during lesson periods, as an aid to passing tests, tends to create learners who, over the time, perceive passing examination and getting high scores as the main target of their learning.

Recent studies (Marshall, 2007) have drawn attention to the negative effects that such practices could have on learners' future objectives regarding their plans during their study. One of these negatives that may emerge in learners' minds is the tendency to revise and investigate strategies that help in answering test questions rather than developing higher-order thinking skills and tactics that will assist them to resolve any learning obstacles. The effects are even stronger for those students who do poorly in examinations. If a test moves from its main target of motivating learners to increasing their frustration and dropout of the learning system, then this type of test is of no benefit to the learning process, whatever its validity and reliability (Stiggins, 2007). Previous studies (Black et al., 2004; Weiner, 1994) have confirmed that test scores could negatively influence learners' benefit from the important feedback given by teachers' comments, since their focus will go to

marks on papers, and learners' motivation to learn is among the variables that affect their future attainment (EPPI-Centre, 2002).

Teachers and schools are other major sufferers from using students' marks on examinations for high stakes purposes. In this study, the major purpose of school assessments was found to be to provide learners with marks from the four major examinations during the two semesters. For students in grades 10 and 11, the main decision is whether to advance them from one grade to another. For students at the final year, grade 12, however, the final marks will determine whether students will have the chance to study at university level. Students who failed to achieve the pass mark must repeat the same grade again until they pass, or if they fail for three times in succession, they will be dismissed from the school and the learning process. For this reason, the mid-term and end of term exams are considered as high stakes tests, since they are used to make serious decisions about students' future progress. They are similar to the General Certificate tests (GCSE), and Standardised Assessment Tasks (SAT) in England, and the Scholastic Aptitude Tests (SAT) in the United States.

The additional problem here is that students do not have the ability to increase their final mark through other assessment methods and classroom activities, such as classroom assignments, homework, and participation in various school activities. Even the 20 per cent that is given to students for their contribution in classroom activities is actually being used for non-academic aspects, to reward or sanction students according to their behaviour in the class. Students who manage to pass those tests and examinations will have more probability to proceed to the following grade and ultimately to be accepted on undergraduate courses in universities. Failure to do so will lead to being retained retain in the same stage and loss of prospects for further education. These policies force both students and teachers to surrender

to a test culture as the only method of evaluation. Consequently, this minimizes the potential to implement more effective assessment strategies that employ assessment as tools to advance learning and produce more efficient learners rather than passive receivers of knowledge. Teachers recommended that to be more motivating, assessment should be distributed throughout the year, not just applied at certain times. By doing so, learners will be motivated to study all the time.

8.8.   Research Question 7

Have teachers had any training in assessment methods?

Teachers' responses showed that among the 490 teachers who participated in this study, 310 (63.3%) had been involved in training courses on assessment methods; 66 had attended one course, 59 had attended two, and 185 had attended more than two. 54 of the teachers who participated in training courses said they have had it before five years or more, 71 teachers had done so within 3 to 4 years, and 185 teachers said it was within the past 1-2 years. Women had been more involved in the training courses than men, and teachers with over 15 years of experience had received more assessment training than teachers with less experience.

It should be recalled that this is a context where the Ministry of Education figures indicate that there are 676 unqualified teachers, 432 men and 244 women (p.42). The Ministry of Education provides training courses to secondary school teachers on various topics, such as curriculum, instruction, teaching methods, and assessment and evaluation. The total number of training courses, as indicated by the annual statistical reports from year 2000/2001 until 2004/2005, was 114 courses. 49 for men and 65 for women, but only 8 training courses were about assessment and evaluation. This small number of courses for

training on assessments account for just 10% of all training courses. Assessments are a continually developing area, and giving so few courses on such a topic is inadequate.

Teachers, especially those who are less qualified and have fewer experiences, need to be updated with modern techniques. Some teachers suggested that some teachers lack assessment knowledge. Teachers should understand how to use assessment results to modify their instructional process according to learners' needs. However, assessment specialists believe that this is not the case and the old practice will continue (Electronic Education Report, 2007). The appropriate solution to avoid this is to increase the number of assessment courses every year to ensure teachers' equipment with powerful tools for assessing their learners. This will provide the education system with positive outcomes, if the training courses are will planned and fulfil teachers' training needs. Planning for assessment courses should also consider the findings of previous research, which showed there is no relationship between the training programmes set by the ministry and other professional studies' findings and recommendations concerning teachers' actual training needs (Al-Suwadi, Al-Nail, & Al-Hor, 1999).

The total numbers of teachers who had participated in courses on assessment in various subject areas were 169 men and 71 women (p.42). This gender disparity may be due to their qualification, since the ministry statistics showed that there were more unqualified men than women. Focusing on these teachers may fill the gap to improve assessment practice in schools. However, this does not mean women's needs for training courses can be ignored, since they also should be kept up-to-date with modern techniques, particularly formative assessment and its beneficial tools:

> *Teachers need to have professional pre-service and in-service training for these specific requirements of formative assessment.* (Sadler, 1998, p.82)

The findings showed that most teachers, 79%, indicated their desire to attend future courses in assessment methods This demonstrates that teachers actually feel the need for training programmes in assessment, and disregarding such aspirations may result in inaccurate practices, which, consequently, will affect students' achievement. Many teachers signified in their comments their needs for training not just in assessment but in many areas where they feel they were left with little information and knowledge.

8.9.   Other Findings

A few teachers recommended assigning a subject coordinator for each area, who would be teachers with more experience in the field, and more qualified. They could help new teachers and unqualified teachers by supporting them with plans and strategies. The findings of this study also reflected a view that learners' individual differences should be considered in planning for instruction and assessment, which is similar to other countries' findings (EPPI-Centre, 2002) and recommendations in previous studies (Brophy, 1986; Satterly, 1981). Parents' involvement in their children's education was seen by teachers as a major element to produce learners that take responsibility for their learning. Also, it was found from teachers' comments that insufficient consideration is given by the authorities to teachers' motivation in their jobs, since teachers are not encouraged to develop themselves, and creative practices in classroom are not recognised and appreciated.

8.10. Conclusion

This chapter has answered the main research questions. The results showed that even though many teachers indicated their proficiency with various assessment techniques, some indicated they are not skilled. Statistics showed that there are many teachers, especially men, have no education qualification and this could affect teachers' ability to employ different assessment methods. In addition, the results indicate that many teachers' construct their own tests and, therefore, it is important to have the experience to do that. Besides, teachers asked for more training courses on assessment techniques.

The effects of qualification are reflected in teachers' ability to apply assessments in practice. A significant number of teachers indicated they sometimes or even never applied the different assessment procedures. Some teachers, however, showed a great responsibility toward their students, by assessing them with various methods, and implementing even new assessment strategies in their classes, such as self and peer assessments. Most teachers strongly recommended the adaption of an assessment plan incorporating new assessment techniques. They considered the current plan to be too old to accompany the new developments in assessments, and not corresponded to teachers' and students' needs.

Teachers signified the effects of many external factors on their ability to employ various assessment methods, including compliance with assessment plan specifics and score distribution standards, heavy curriculum workload, large class sizes, and limited teaching time. Furthermore, the low achievement levels of learners, teachers' insufficient awareness of the different assessment methods and their lack of training on assessment were thought to pose additional problems for teachers. Nevertheless, teachers showed an interest in gaining information about tests from various sources.

The main purpose of assessments was said to be providing students with marks that helps to proceed from one stage to other, or to graduate from secondary school. Even though some teachers indicated their employment of feedback for different processes, many indicated this was just in form of comments about students' mistakes on tests. Students were positively involved in the assessment process by providing them with the intended objectives and information regarding the grading scales and ways to achieve the objectives. Nevertheless, re-explaining the topics that students had failed to comprehend was the main benefit students gain from the results, besides finding out their own mistakes and the correct answers. Tests were thought to have various effects on students' learning. Some of them were positive, since they encourage students' active communication in class; others were negative, because they tend to focus students' attention on grades and marks.

The chapter explained the importance of teachers training on various assessment methods, especially as some teachers have no qualifications in Education. Many of them asked for intensive training on assessment. Teachers were willing to participate in training programmes on a variety of subjects, especially assessment. However, it is up to policy makers to encourage the implementation of such courses for the benefit of schools, teachers, and students.

The last chapter will set out the main conclusions regarding this study's findings, including major characteristics of assessment practices in secondary schools, and the main results. After that, suggestions and recommendations to teachers, school supervisors, and policy makers will follow, to explain possible ways of improving assessment practices in the near future.

Chapter 9

Conclusions and Recommendations

9.1.   <u>Conclusions</u>

The main aim of this study was to investigate teachers' current assessment practices in public secondary schools in Qatar, including their perceptions about their current proficiency with assessment methods, formal and informal procedures, and their actual application in classrooms. It also included factors that influence their assessments practices, the major purposes for which assessment is used in schools, students' involvement in the assessment process, assessments' affects on them, and teachers' training on assessments.

The findings of this study revealed that there are some major factors that shape teachers current practices of assessment in their classes. These variables were teachers' compliance with the assessment plan set by the Ministry of Education supervisors, their compliance with score distribution standards, the curriculum workload, insufficient teaching time, insufficient training on assessment, students' low achievement levels and large class sizes. All these factors affect, in one way or another, teachers' ability to conduct more beneficial formative assessment and provide useful and instructive feedback to their learners.

It is important, before we ask teachers to implement various assessment strategies, to arrange the learning environment for them, so they will be capable of implementing whatever they are asked to perform in classes. Teachers, according to this study, are loaded with many responsibilities. On the one hand, they are required to instruct students on many topics, which are too much, according to teachers' indications. This study confirmed what

has been found in previous studies regarding curriculum intensity and teachers' struggle to teach all the material set in their curriculum plan. In the same time, the teaching time is too little for them to finish teaching all these topics. The teaching time spent on teaching all the topics will be at the expense of assessment activities that should be incorporated into lessons, such as questioning, individual and group activities, identifying each student's learning needs and providing proper feedback to each student. With these limitations, it is hard for teachers to set beneficial plans to diagnose students' strengths and weaknesses in every lesson, such as short tests and quizzes, and to plan for remedial work to aid those who suffer from learning difficulties, besides challenging students who have mastered the material with more advance topics.

On the other hand, teachers are provided with solid plans, assessment specifics and score distribution standards, which hinder them from active involvement in assessment practices. The study has exposed that these factors have considerable effects on teachers, because they provide them with explicit arrangements that regulate their performance in class. They must obey these rules, which mandate specific assessment procedures, such as tests to be used as the only valid assessment method. A further pressure come from the score distribution standards that limit the mark given for students' participation in activities to 20% for the whole year, and 80% for the various exams. Therefore, even if teachers wish to implement new formative assessment methods, such as self and peer assessments, they are not supported with marks to be given to students to motivate them and encourage them to participate in such activities.

The current research findings confirmed that the current assessment process relies on old plans that require the application of traditional tests, which is similar to other studies' findings. What was found to be different from other studies' results is that the current tests involve more test item formats rather than just the essay questions, such as multiple-choice, open and close-ended essays, and true/false questions. However, assessment techniques that provide teachers and students with direct feedback in the classroom, such as observation, questioning, individual and group projects, diagnostic quizzes, outside class interviews etc are not considered in the general assessment plan It was agreed by most teachers and students that there is a strong need for continuous assessment to be implemented in schools. This would help teachers to gain insight about learners' progress toward achieving the objectives, to evaluate their instruction and do whatever is needed to make it more beneficial. Also, it would help learners to monitor their academic attainment week by week and month by month, and to make the required improvement to overcome any weaknesses.

The results also confirmed that the current tests are designed to assess lower-order thinking abilities, such as knowledge and understanding. This is consistent with what has been found in other studies. The reason for this, according to teachers, is attributable to students' low achievement levels, lack of the fundamental prerequisite skills, and lack of understanding how to answer test questions. Teachers claimed that this is one of the factors that negatively influence teachers' ability to implement various activities in the classroom. They believe more time is needed to help under-achieving learners, rather than planning for assessments.

The study also verified that teachers and students are aware of the intended objectives to be met by assessment. Some teachers showed responsibility toward their learners by explaining to them these objectives and the grading scale that accompanied these objectives. However, procedures that involve students in the assessment process, such as self and peer assessment, are rarely employed, since they are new to teachers and students, and no training has been given to either of them concerning the application of such techniques. Still, it is important to ensure that such practices, describing the educational objectives and setting goals, are implemented in schools and both teachers and students understand the rules and regulations regarding the grading system, especially if new plans and developments are sought in the future.

Students' benefit from the assessment results was found to be limited to providing them with marks, according to their performance on tests. Underachieving students, who did poorly in exams, are only provided with explanations concerning their mistakes on the test, and the correct answers. No attempts are made to inspect the reason behind students' failure or low achievement, and their strengths and weaknesses. Teachers indicated their planning of remedial work for under-achieving students, but they also explained that they have no right to modify their instructional plans according to learners' needs. The assessment plan specifics and supervisors' regulations impede some teachers from seeking excellence in classroom practice.

This study has found that the current assessment plan has some negative impacts on students' learning, such leading them to focus more on their marks on tests, memorise information to answer questions on tests, and compete with each other, as well as increasing test anxiety among them. However, teachers also indicated that the current assessment practice also encourages positive communication between students and their

peers and with teachers. It also promotes students' participation in activities and acquisition of new skills.

The study revealed that teachers are rarely involved in planning for various aspects of learning, from the curriculum design to assessments. Teachers' suggestions and plans for improvement are not considered, and even when they pointed out mistakes and grammatical errors in the textbooks, these were not corrected in later editions. They thought their views about any proposed assessment plan should be taken into account, as without teachers' participation in assessment planning, it will be hard to ensure that the new plans will work. Neglect of teachers' ideas on the improvement of assessment procedures and other aspects of the learning process, such as the curriculum and instruction, may de-motivate them and make them uninterested in any future development.

This study signified the importance of planning training programmes on assessment methods, depending on teachers' actual needs and other studies' recommendations. Many teachers emphasised more than once their intensive need for such courses, and also the Ministry of Education statistics suggest a need for training workshops and courses in the various assessment techniques. The training courses on assessment methods were insufficient in relation to teachers' qualifications and the various subject areas. Focusing on less-qualified teachers is essential at this point, but without disregarding other teachers' needs. More training plans are needed for all subjects, and more training is needed specifically in formative assessment techniques, since research shows that such assessment is powerful for providing teachers and students with formative feedback on their performance. However, such training will not be helpful if it is not accompanied by modification of curricula to contain fewer objectives, flexibility in the assessment plan specifics, allocation of marks for other assessment techniques. To help teachers apply what

they learn during their training, they should be given enough time and technical support from their supervisors and other experts.

As well, school supervisors should have sufficient training on assessment so they can transmit these techniques to the teachers they supervise. The reason for this is that the statistics also showed that inadequate training is provided to teachers' supervisors. If school supervisors are not knowledgeable about new assessment methods, it will be hard for them to identify their teachers' needs and transmit new assessment procedures to teachers. In fact, they may prevent some teachers, who are experienced in assessment and want to apply new techniques, from implementing new strategies, according to the assessment plan specifics. Teachers' supervisors should strongly recommend more training plans in assessment for teachers of various subjects, to the officials who are responsible for setting training programmes.

To achieve some of these objectives and practices, the second section will introduce some recommendations based on the research findings. These recommendations are directed towards teachers, school supervisors, and policy makers, to help in building a new assessment system for Qatar's schools:

9.2. <u>Recommendations for Future Practices:</u>

9.2.1. Suggestions for Teachers:

- Teachers should find for themselves, information about new assessment and evaluation techniques from internal and external resources. This could be done by looking at relevant resources in schools and universities, asking school supervisors to provide them with such information if applicable, inquiring about classroom assessment from specialists in the Ministry of Education, and benefiting from the advice of education professionals in universities.

- Teachers should strive for professional improvement by trying hard to gain more insight about the various assessment strategies that may be applied in schools. This could be done by asking the school administrator to involve them in training workshops in assessment techniques to develop their skills and to get more feedback about their previous and current application. Besides, teachers may try to participate in private workshops on assessment methods, if possible, without waiting for in-service training, which may not be achievable.

- Teachers should be careful when constructing test items with the aid of external resources, such as the textbooks, commercial books, and internet websites, since some concerns and doubts have been raised regarding their validity and reliability.

- The educational objectives and criteria learners are expected to accomplish should be clarified to them before they begin the instruction procedure. Students should be aware of and understand the different criteria that will be used to evaluate their achievement, besides the marks given to each test item and assessment procedure.

- Theoretical teaching of syllabus topics is important, but concern should also be given to practical application of this information though classroom activities and laboratory experiments, when possible.

- Teachers should try to implement new assessment strategies in their classrooms whenever applicable, after understanding the appropriate ways to do so.

- They should provide their students with formative feedback regarding their strengths and weaknesses, and follow up with each student, as much as possible.

- The activity mark is designed for students' participation in classroom activities. Therefore, teachers should employ these marks in the appropriate way and avoid punishing students for their unacceptable behaviour by deducting this mark from their final evaluation.

- They should strive to follow the regulations and guidelines regarding achievement test construction, whenever designing them, by focusing on the educational objectives intended to be met by students.

9.2.2. Suggestions for School Supervisors:

- Supervisors should search for the new assessment techniques being introduced in the education field from the different resources in the Ministry of Education library, the universities, and the internet.

- The instructional and assessment plans designed by the Curriculum and Textbooks Department should take into account learners' different abilities and individual differences, so that the learning process and classroom activities will inspire students with different abilities

- Supervisors should attend training courses and workshops in assessments, to ensure that they keep- up-to-date and updated with new assessment strategies.

- They should request more training courses for their teachers in various subjects, to equip them with new assessment techniques, especially for new qualified teachers who may come to the profession without any experiences in assessment. Even experienced teachers should be given training sessions in new assessment techniques to update them with new assessment strategies recently introduced in the literature.

- Even though there is an assessment plan that teachers are restricted to, they should be instructed to engage positively in the assessment plan, by suggesting possible methods of assessment, especially the experienced teachers. Their recommendations, moreover, should be taken into account; otherwise this may have negative effects on their motivation to participate in such activity in the future.

- Supervisors should insist on changing the current grading system, since it has negative effects on students' involvement in activities. It also creates learners who are looking for grades more than knowledge and challenge.

- Creative teachers who involve new ideas and assessment techniques in their assessment of learners' attainment should be praised and rewarded for their self motivation and hard work.

- Examples of new creative assessment practices by teachers should be distributed to peers in other schools. In this way, teachers can share positive and effective ideas and suggestions for learners' assessment other than tests. They can learn from each others' experiences, which could reinforce their creatively, and inspire them to better assessment practices.

- Encourage teachers to identify students with learning difficulties and those who lack the basic skills consistent with their current key stage and design remedial plans for them.

9.2.3. Suggestions for Policy Makers:

- The current assessment policy should be modified to re-consider the current practices on assessments, the test specific plan, and the score distribution standards.

- The percentage that is given to students' participation in various classroom activities should be increased, since it would help to encourage and motivate learners to take part in class work.

- More attention should be given to the application of alternative assessment methods, and various assessment techniques should be implemented, since research shows their benefits for teachers and students. These may include incorporating questioning, interviews, quizzes, individual and group projects, and other similar activities, and regular feedback should be employed to provide teachers and learners with information regarding strengths and weaknesses.

- Practical application of curricula, especially in scientific subjects, is a major requirement to ensure that students comprehend the material taught in class. Schools' Laboratories should be effective in students' learning and an important part of the curriculum.

- Teachers should be involved in the assessment process by giving them some freedom to decide the appropriate assessment procedure to be used in classroom settings. Their opinions and comments regarding the improvement of the assessment plan should be activated, since they are the people in charge of and

directly involved in students' learning. Therefore, they are capable to design assessment plans that suit their students' needs.

- Students also should be involved in the assessment process by giving them the chance to assess themselves and their peers. This should be done after training students in such activities and with their teachers' guidance.

- Diagnostic assessment can be designed to measure teachers' attainment of basic skills in assessment methods. This may include understanding the various types of assessment, ways to apply them, feedback that should be given in each assessment, and ways to construct achievement tests effectively. After that, feedback should be given to teachers about possible ways to improve their practices, and training programmes can be designed according to teachers' needs. However, the assessment findings should not be used in any way for teachers' appraisal.

- Tests should be modified and improved to assess higher thinking abilities, such as analysis, synthesis, and evaluation.

- Diagnostic tests could be employed at the beginning of each school year to evaluate students' mastery of the essential skills, before presenting them to new material that may comprise higher skills beyond what they have gained from previous years.

- Teachers should be provided with various sources about assessment and evaluation and the scientific methods of constructing achievement tests, especially in such circumstances were the traditional tests still the major basis of students' evaluation.

- Teachers should be provided with sufficient teaching time, by reducing the curriculum content, to help them to practise effectively more useful assessment methods.

- It is essential to determine the amount of curriculum and assessments required to be implemented in a specific period time, and to decide accordingly what should be included in the text books that permit for all such activities. To achieve that, curriculum designers and assessment specialist in the Ministry of Education should consider evaluating breadth of the curriculum in each subject, its assessments, and their suitability for the provided teaching time. This may help to ensure that all curricula and assessments can be implemented adequately during the provided time. In such

- Whenever new assessment policies are planned, the opinions and views of teachers from every subject area should be considered. This could be done by sending sample questionnaires to schools, interviewing a sample of teachers and schools' principals, and conducting focus group meetings with a sample of teachers to inquire about their suggestions and comments.

- Before implementing any new assessment policy in schools, school supervisors and principals besides teachers and even students should clearly and fully understand all items in this policy and the way it will be applied in the school year.

- The Ministry of Education library and schools' libraries should be provided with various materials on assessments, so that school supervisors, the assessment specialists, and teachers have access to the recent development in this field.

- Training programmes on assessments need to be designed for school supervisors, teachers, and even principals to ensure that they fully have an idea about various assessment methods. It is essential to consider the previous research findings regarding assessments and training needs in schools, besides teachers actual needs according to their qualifications and comments.

9.3.   <u>Recommendations for Further Studies:</u>

-   Other research in assessment practices in primary and preparatory educations could be done to determine the main features of these practices and factors influences assessment practices. Then, comparative studies can be done to evaluate the differences between them in the three stages.

-   Since some teachers praised the assessment system in independent schools, further studies can be established to identify the assessment procedures that are employed in such system and their benefits to teachers and students, besides the similarities and differences between the assessment plans in the independent and public schools.

-   Since the main aim of this study is to provide descriptive information regarding current assessment practices in secondary schools according to teachers' and students' perceptions, further studies can be done through case studies and action research to investigate the similarities and differences between teachers' perceptions and actual performance in schools.

9.4.   <u>Limitations of the Study</u>

-   The test of the association between the various variables in this study showed many significant associations exist between various variables. Some of these variables were highly correlated with others, whereas some other factors showed moderate or low correlations. However, the effect sizes between most variables were between low to moderate, except one or two relationships between factors. Therefore, it is not appropriate to suggest, according to the study findings, that the relationships found significant between the variable represent real existences in the parent population. As a result, the only conclusion that can be made in this sense is that the

significant results of associations found between the factors represent a real relationship between the factors and not due to chance. However, the relationships found to be significant between variables represent just the sample of secondary schools teachers being participated in this study, and do not apply to other samples of secondary schools teachers in the main population.

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Figure 1

The Map of the State of Qatar

Teachers' Perceptions of Assessment Practices in Public Secondary Schools in the State of Qatar

Section 1

Please place a tick (√) in the proper place, and write the relevant details in the spaces provided in questions (1-5).

----

1. Gender
- ○ Male
- ○ Female

2. Your Major

....

3. Subject you Teach
- ○ Islamic Studies
- ○ Arabic Language
- ○ English Language
- ○ Mathematics
- ○ Science
- ○ Social Studies
- ○ Others (specify)

....

4. Years of Experience
- ○ 1-5 years
- ○ 6-10 years
- ○ 11-15 years
- ○ Over 15 years

5. Number of Students in the Class you teach
- ○ 20-25 students
- ○ 26-31 students
- ○ 32-37 students
- ○ Over 37 students

End of section 1

Section 2

The following section (6-7) focuses on your skill with the construction of different test items and the application of other assessment techniques of students' progress. Will you please answer the following items in this section by writing **one** number in the scale column opposed to the items to be measured by using the following scale:

1 Not skilled
2 Less skilled
3 Do not know
4 Skilled
5 Totally skilled

6. Your skill in constructing the different test items

Test Items	Scale (1-5)
Completion of sentence questions	
Multiple-choice questions	
True/False questions	
Matching questions	
Closed-ended essay questions	
Open-ended essay questions	
Re-arrangement questions	
Drawing questions	

7. Your skill in applying other assessment techniques

Methods	Scale (1-5)
Classroom discussion	
Classroom observation	
Individual interviews with students	
Assessing student's individual activities	
Assessing student's group activities	
Oral questioning	
Assessing student's presentation skills	
Students' self-assessment	
Students' peer-assessment	

End of section 2

1

Section 3

The following section (8-9) focuses on your current application of the different assessments. Will you please answer the following items by writing **one** number in the scale column opposed to the items to be measured by using the following scale:

1 Never
2 Rarely
3 Sometimes
4 Mostly
5 Always

_____

8. Test items that are used in tests

Test Items	Scale (1-5)
Completion of sentence questions	
Multiple-choice questions	
True/False questions	
Matching questions	
Closed-ended essay questions	
Open-ended essay questions	
Re-arrangement questions	
Drawing questions	

Others, please specify:

....
....
....

9. Other assessment methods that are used to assess Students' progress

Methods	Scale (1-5)
Weekly short tests	
Monthly short tests	
Homework	
Classroom assignments	
Classroom discussion	
Classroom observation	
Individual interviews with students	
Assessing student's individual activities	
Assessing student's group activities	
Oral questioning of students	
Recording student's participations in the classroom	
Students' self-assessment	
Students' peer-assessment	

Others, please specify:

....
....

End of section 3

Section 4

The following section (10-14) focuses on factors that affect your assessment practices. Will you please answer the following items by writing **one** number in the scale column opposed to the items to be measured by using the following scale:

1 Never
2 Rarely
3 Sometimes
4 Mostly
5 Always

_____

10. Sources that provide you with the different assessment methods to measure students' attainment

Sources	Scale (1-5)
My own made tests	
My colleagues' tests	
The textbook	
The teachers' guide book	
Books other than the textbook	
Past tests from the same school	
Past tests from a different school	
Educational websites on the internet	
The Ministry of Education	

11. Factors that affect your ability to apply the different assessment techniques

Factors	Scale (1-5)
The curriculum workload	
The testing workload	
The insufficient awareness of the different assessment methods	
The insufficient training on the application of the different assessment methods	
The large number of students in the class	
The insufficient teaching time	
Compliance with the assessment plan specifics	
Compliance with scores distribution standards	
Students' low achievement level	

12. The educational objectives behind the application of the different assessment methods

Objectives	Scale (1-5)
Assess students' attainment of fundamental skills before the beginning of the instructional process	
Determine students' past experiences before the beginning of the instructional process	
Measure students 'attainment of the required skills of a limited segment of instruction	
Diagnosing students' strengths and weaknesses	
Provide students with feedback regarding their learning performance	
Assign grades to students	
Moving students from one grade to another	
Provide students with certificates	
Judge the success scope of the assessment process itself	

13. Sources that form your expectations about students' future achievement

Sources	Scale (1-5)
Previous certificates	
Current scores	
Participation in classroom activities	
Personal behaviour	
Personal motivation to learn	
Interest in classroom assignments	
Interest in homework assignments	
Other teachers expectations	

14. Students abilities that are assessed through different assessment methods

Abilities	Scale (1-5)
Knowledge (memorization): the ability to memorize facts and information	
Comprehension (understanding): the ability to perceive meanings and translate ideas from one form to another	
Application: the ability to use information to solve problems or dealing with new situations	
Analysis: the ability to analyse information and determine causes and arrive to conclusions	
Synthesis: the ability to organize ideas altogether to form a complete image that has meaning	
Evaluation: the ability to evaluate information and take decisions regarding specific subject according to a defined criterion that allow the learner to present his/her view	

End of section 4

Section 5

The following section (15-17) focuses on students relationship with assessment process. Will you please answer the following items by writing **one** number in the scale column opposed to the items to be measured by using the following scale:

1 Never
2 Rarely
3 Sometimes
4 Mostly
5 Always

----

15. Strategies that are followed to involve students in the assessment process

Strategies	Scale (1-5)
Clarify to them the intended instructional goals to be met	
Inform them about the criteria in which their achievement will be assessed	
Clarify the weight of each item by grades in the assessment method	
Help students to understand what to do against specific criteria that they will be judged on	
Give them the chance to assess themselves	
Give them the chance to assess their peers	
Guide students to be prepared for tests	
Guide students to be prepared for dealing with test paper	
Train students on previous tests	
Explain to a student his/her progress in achieving targets	

16. Methods used to benefit from the assessment results of students achievement during the learning process

Methods	Scale (1-5)
Re-explain the instructional elements that students could not comprehend	
Modify the instructional plan according to students ' needs	
Give remedial work to students who lack prerequisite skills	
Design remedial work for students with severe learning problems	
Provide students who have mastered some of the material on the future planned instruction with a more advanced level of instruction	
Support students with explicit plans to improve their learning performance	

343

17. The affects of current assessment methods on students' learning

Affects	Scale (1-5)
Motivates students to get high marks	
Increase grade competition between students	
Encourage students ' participation in classroom activities	
Encourage students ' communication with their peers	
Encourage students' communication with their teachers	
Encourage students to think effectively	
Increase test anxiety among students	
Create a cooperation situation between students	
Help students to acquire new skills	
Increase students' motivation to learn	
Help students to understand their achievement abilities	

End of section 5

_____

Section 6

The following section (18-24) focuses on teachers training on various assessment techniques. Please place a tick (√) in the appropriate box according to the details that are given.

18. Have you ever attended any workshops on classroom assessment techniques?

   ○ Yes
   ○ No

(If the answer is no, please skip to item (22))

19. If yes, please indicate how many workshops they were?

   ○ 1
   ○ 2
   ○ more than 2

20. When was the last workshop you attended that was related to assessment methods?

   ○ 1-11 months
   ○ 1-2 years
   ○ 3-4 years
   ○ 5 and over

21. How useful were these workshops?

   ○ Not useful
   ○ Quite Useful
   ○ Average useful
   ○ Very useful
   ○ Essential

22. Would you like to attend any assessment workshops in the future?

   ○ Yes
   ○ No

23. If the answer is (yes), please indicate on which topic(s) would you like to attend? (Please tick as many responses as appropriate)

   ○ Methods to assess students' achievement
   ○ The construction of different assessment methods
   ○ The application of different assessment methods
   ○ Analysing assessment methods results
   ○ National standardized tests
   ○ Using assessment methods to increase students' scores
   ○ Using assessment methods to provide students' with feedback
   ○ Using assessment methods to improve students' abilities
   ○ Using assessment methods to develop teachers abilities to teach effectively

Others, please specify:
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32. Other comments you want to indicate about current assessment methods of students' achievement that are used now

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Thanks for your participation in this questionnaire.

4

344

Appendix 2

Letter Sent to Participants

بسم الله الرحمن الرحيم

عزيزي المعلم/المعلمة

السـلام عليكـم ورحمـة اللـه وبركاتـه، وبعـد:

تهدف هذه الاستبانة المرفقة بين أيديكم، والتي تمثل الجانب الميداني لبحث رسالة الدكتوراة، الى إستطلاع آراء المعلمين والمعلمات في المدارس الثانوية الحكومية بدولة قطر حول الطرق والأساليب المختلفة التي يستخدمونها حالياً في تقييم تحصيل الطلاب والطالبات. الهدف من ذلك هو معرفة نوعية تلك الأساليب المستخدمة كادوات لتقييم تحصيل الطلاب والطالبات والتطرّق الى بعض العوامل الأخرى المتعلقة بعملية التقييم ككل.

أما بالنسبة لمحتويات هذه الاستبانة فانها تنقسم الى خمسة أقسام بحيث يتناول كل قسم جانب معين من جوانب الدراسة الرئيسة، وكل قسم يشمل شرح مختصر لما هو مطلوب من حيث الاجابة على بنود الفقرات وكيفية الاستعانة بالمقياس الخاص لكل قسم. الرجاء الاجابة على جميع بنود الاستبيان وفقاً للتعليمات المعطاة في الأقسام المختلفة وتسجيل استجاباتكم وملاحظاتكم القيّمة حول بنود هذه الاستبانة بدقة وأمانة وموضوعية. علماً بأن مشاركتكم الهامة تعد أحد الدعائم الرئيسة للبحث، كما أن جميع استجاباتكم على الاستبانة سوف تستخدم لأغراض البحث العلمي فقط، وسوف تعامل جميع الاستبانات بسرية تامة.

ملاحظة: لا تتطلّب الاستبانة كتابة الاسم، وفي حالة وجود أي إستفسار خاص بالدراسة أو الاستبانة، الرجاء الاتصال على الهاتف المبين أو استخدام البريد الالكتروني.

شاكراً لكم وقتكم الثمين وحسن تعاونكم ومشاركتكم الايجابية والفعالة في هذه الدراسة.

والسلام عليكم ورحمة الله وبركاته

جمال عبدالله صالح قاسم
وزارة التربية والتعليم
الجوال/ ٥٨٨٥٨٤٩
jqassim@hotmail.com

Golden Medal
Translation Services Co.

GM

شركة الوسام الذهبي
لخدمات الترجمة

We, Golden Medal for Translation hereby certify that we have reviewed the attached copies (Arabic & English) which related to the Survey Study of the Assessment Methods of Pupils Achievement in Secondary School Teachers from the Public Private Schools In the State of Qatar. They were correct and identical.	نشهد نحن شركة الوسام الذهبي للترجمة بأنه تمت مراجعة كلاً من النسختين العربية والانجليزية المرفقتين بهذا الكتاب و المتعلقتين بموضوع دراسة استطلاعية عن طريق تقييم تحصيل الطلاب لمعلمي المدارس الثانوية الحكومية و الخاصة بدولة قطر ووجدتا صحيحتين ومتطابقتين.

For/Golden Medal for Translation

تليفاكس : ٤٣٥٣١٥١ - جوال : ٥٨٢٢٨٩٣ - ص . ب : ٧٤١٧ - الدوحة - قطر - سوفتيل البور الأول رقم ٣٦
Telefax : 4353151 - Mobile : 5822893 - P. O. Box : 7417 - Doha - Qatar - Sofitel, 1st Floor No. 36
E-mail : gmtranslation@yahoo.com - gmtranslation@qatar.net.qa

Appendix 4

Validation of Arabic Translation (2)

مركز آسيا للترجمة والخدمات

ASIA
SERVICES

ASIA TRANSLATION & SERVICES CENTER

Leading Legal Translators مترجمون قانونيون متميزون

دراسة استطلاعية عن طرق تقييم إنجازات الطلاب في معلمي المدارس
الثانوية الحكومية والخاصة بدولة قطر

يهدف هذا الاستبيان إلى استطلاع آراء المعلمين الخاصة بأساليب تقييم الطلاب الموجودة حاليا في
المدارس العامة والخاصة بدولة قطر، الرجاء الإجابة على جميع بنود الاستبيان وفقا للتعليمات
المعطاة في الأقسام التالية ، جميع الإجابات على الإستبيان سوف تعامل بخصوصية تامة وسوف
تحفظ لدى الباحث.

القسم الأول

الرجاء وضع علامة (√) في المكان الملائم وكتابة البيانات المناسبة في الفراغات المعطاة في
الأسئلة (١-١٠)

١- الجنس

○ ذكر

○ أنثى

٢- السن

○ أقل من ٢٥ سنة

○ ٢٥-٣٥ سنة

○ ٣٦-٤٥ سنة

○ أكثر من ٤٥ سنة

٣- المؤهل العلمي (تخصصك):

....

٤- سنة التخرج:

....

٥- المادة التي تدرسها

○ العلوم الشرعية

○ اللغة العربية

347

٣٢- ملاحظات أخرى تود إضافتها

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شكرا على مشاركتك في هذا الإستبيان

We, Asia Translation and Services Centre hereby confirm that we have reviewed the attached translation made by Mr. Jamal Abdulla Saleh Qassem and have found correct and complying with the attached English Text.	نحـن ، مركز آسيا للترجمة والخدمات نؤكد بهذا علـى أنفا ق راجعنا الترجمة المرفقة التي قام بها السيد/ جمال عبد الله صالح قاسم حيث وجدناها صحيحة ومطابقة للنص الإنجليزي المرفق.

Asia Translation & Service Centre

مركز آسيا للترجمة والخدمات

Appendix 5

Letter Sent to the college of Humanities at the University of Qatar

بسم الله الرحمن الرحيم

الفاضــل الدكتور / عميـــد كليـــة الانسانيـات بجامعـة قطـر   المحتـــرم

السـلام عليكـم ورحمـة اللـه وبركاتـه، ويعـد:

كجزء أساسي من بحث رسالة الدكتوراة التي أقوم بتحضيرها حاليا في جامعة هل بالمملكة المتحدة ، يتطلب القيام بتطبيق دراسة ميدانية على عينة عشوائية من المعلمين والمعلمات بالمدارس الثانوية الحكومية بالدولة. الهدف الرئيسي لهذا البحث هو الوقوف على الطرق المختلفة الحالية التي يستخدمها المعلمين والمعلمات لتقييم التحصيل العلمي لطلابهم وذلك في مدارس التعليم العام الثانوية بالدولة، بالاضافة لاقتراح السبل التي من شأنها تطوير عملية تقييم التحصيل العلمي للطلاب والطالبات بما يعود على العملية التعليمية بالنفع والفائدة.

وقد تم تصميم أداة الدراسة لجمع البيانات وهي عبارة عن استبانة موجهة الى المعلمين والمعلمات للوقوف على الطرق المستخدمة حالياً لتقييم التحصيل العلمي للطلاب. كما تمت ترجمة هذه الاستبانة من اللغة الانجليزية الى اللغة العربية تمهيداً لتوزيعها على عينة الدراسة. ونظراً لأن الباحث قد قام بترجمة هذه الاستبانة بصفة ذاتية فان ذلك يتطلب مراجعة الترجمة من جهة علمية مصدقة كجامعة قطر عن طريق المتخصصين بهذا الشأن للتأكد من مدى مطابقة الترجمة للأصل وحتى يتسنّى للباحث بعد ذلك إجراء التعديلات عليها إذا لزم الامر.

لذا أرجوا منكم التكرم بالايعاز للمختصين في هذا الجانب بمراجعة هذه الاستبانة لغوياً وتسجيل الملاحظات الهامة حولها، علماً بأن هذه المراجعات سوف تكون احدى أهم المحكات الرئيسة أمام المشرفين على هذه الرسالة لضمان مطابقة الترجمة للأصل.

ملاحظة: مرفق طيه كتاب هيئة التعليم والملحق الثقافي بخصوص الباحث.

شاكراً لكم وقتكم الثمين وحسن تعاونكم في مراجعة هذه الاستبانة...

هـــذا وتفضـــلوا بقبـــول وافـــر التحيـــة والاحتـــرام

جمال عبدالله صالح قاسم
باحث بمرحلة الدكتوراة / المملكة المتحدة
التخصص (القياس والتقويم)
٢٠٠٦ / ٩ / ٢٦

Appendix 6

Letter Sent to an Expert in Assessment and Evaluation (1)

بسم الله الرحمن الرحيم

الفاضـــل / الدكتـــور عبدالفتـاح حسن قطب   المحتـــرم

السـلام عليكـم ورحمــة اللـه وبركاتــه، وبعـد:

كجزء أساسي من بحث رسالة الدكتوراة التي أقوم بتحضيرها حاليا في جامعة هل بالمملكة المتحدة ، يتطلب القيام بتطبيق دراسة ميدانية على عينة عشوائية من المعلمين والمعلمات بالمدارس الثانوية الحكومية بالدولة. الهدف الرئيسي لهذا البحث هو الوقوف على الطرق المختلفة الحالية التي يستخدمها المعلمين والمعلمات لتقييم التحصيل العلمي لطلابهم وذلك في مدارس التعليم العام الثانوية بالدولة، بالاضافة لاقتراح السبل التي من شأنها تطوير عملية تقييم التحصيل العلمي للطلاب والطالبات بما يعود على العملية التعليمية بالنفع والفائدة.

لذا تم تصميم أداة الدراسة لجمع البيانات وهي عبارة عن استبانة موجهة الى المعلمين والمعلمات للوقوف على الطرق المستخدمة حالياً لتقييم التحصيل العلمي للطلاب. وهذا الامر يتطلب مبدئياً مراجعة أداة الدراسة (الاستبانة) للتأكد من مدى صدق محتواها وقابليتها للتطبيق عن طريق عرضها على المحكّمين المختصين في هذا المجال ليتسنّى للباحث بعد ذلك إجراء التعديلات عليها إذا لزم الامر.

لذا أرجوا منكم التكرم بمراجعة هذه الاستبانة وتسجيل الملاحظات الهامة حولها، علماً بأن هذه المراجعة سوف تكون من أهم المحكات أمام المشرفين على هذه الرسالة لضمان صدق المحتوى لهذه الاستبانة.

ملاحظة: مرفق طيه أسئلة البحث الرئيسة التي على ضوئها تم بناء هذه الاستبانة

شاكراً لكم حسن تعاونكم في مراجعة هذه الاستبانة....

جمال عبدالله صالح قاسم
باحث بمرحلة الدكتوراة / المملكة المتحدة
التخصص (القياس والتقويم)
٢٠٠٦ / ٩ / ٢٥

Appendix 7

Letter Sent to an Expert in Assessment and Evaluation (2)

بسم الله الرحمن الرحيم

الفاضـــــل / الدكتـــور محمـد عبدالمنعم   المحتـــرم

السـلام عليكــم ورحمــة اللــه وبركاتـــه، وبعـد:

كجزء أساسي من بحث رسالة الدكتوراة التي أقوم بتحضيرها حاليا في جامعة هل بالمملكة المتحدة ، يتطلب القيام بتطبيق دراسة ميدانية على عينة عشوائية من المعلمين والمعلمات بالمدارس الثانوية الحكومية بالدولة. الهدف الرئيسي لهذا البحث هو الوقوف على الطرق المختلفة الحالية التي يستخدمها المعلمين والمعلمات لتقييم التحصيل العلمي لطلابهم وذلك في مدارس التعليم العام الثانوية بالدولة، بالاضافة لاقتراح السبل التي من شأنها تطوير عملية تقييم التحصيل العلمي للطلاب والطالبات بما يعود على العملية التعليمية بالنفع والفائدة.

لذا تم تصميم أداة الدراسة لجمع البيانات وهي عبارة عن استبانة موجهة الى المعلمين والمعلمات للوقوف على الطرق المستخدمة حالياً لتقييم التحصيل العلمي للطلاب. وهذا الامر يتطلب مبدئياً مراجعة أداة الدراسة (الاستبانة) للتأكد من مدى صدق محتواها وقابليتها للتطبيق عن طريق عرضها على المحكّمين المختصين في هذا المجال ليتسنّى للباحث بعد ذلك إجراء التعديلات عليها إذا لزم الامر.

لذا أرجوا منكم التكرم بمراجعة هذه الاستبانة وتسجيل الملاحظات الهامة حولها، علماً بأن هذه المراجعة سوف تكون من أهم المحكات أمام المشرفين على هذه الرسالة لضمان صدق المحتوى لهذه الاستبانة.

ملاحظة: مرفق طيه أسئلة البحث الرئيسة التي على ضوئها تم بناء هذه الاستبانة

شاكراً لكم حسن تعاونكم في مراجعة هذه الاستبانة ....

جمال عبدالله صالح قاسم
باحث بمرحلة الدكتوراة / المملكة المتحدة
التخصص (القياس والتقويم)
٢٠٠٦ / ٩ / ٢٥

351

Appendix 8

Letter Sent to the College of Education at the University of Qatar

بسم الله الرحمن الرحيم

الفاضـــلة / الدكتورة حصة صادق - عميــد كليـــة التربية بجامعــة قطــر   المحتـــرمة

السـلام عليكـم ورحمــة اللـه وبركاتــه، وبعـد:

كجزء أساسي من بحث رسالة الدكتوراة التي أقوم بتحضيرها حاليا في جامعة هل بالمملكة المتحدة ، يتطلب القيام بتطبيق دراسة ميدانية على عينة عشوائية من المعلمين والمعلمات بالمدارس الثانوية الحكومية بالدولة. الهدف الرئيسي لهذا البحث هو الوقوف على الطرق المختلفة الحالية التي يستخدمها المعلمين والمعلمات لتقييم التحصيل العلمي لطلابهم وذلك في مدارس التعليم العام الثانوية بالدولة، بالاضافة لاقتراح السبل التي من شأنها تطوير عملية تقييم التحصيل العلمي للطلاب والطالبات بما يعود على العملية التعليمية بالنفع والفائدة.

وقد تم تصميم أداة الدراسة لجمع البيانات وهي عبارة عن استبانة موجهة الى المعلمين والمعلمات للوقوف على الطرق المستخدمة حالياً لتقييم التحصيل العلمي للطلاب. وهذا الأمر يتطلب ميدنيا مراجعة أداة الدراسة (الاستبانة) للتأكد من صدق محتواها وقبليتها للتطبيق عن طريق عرضها على المحكمين المختصين في هذا المجال ليتسنى للباحث بعد ذلك إجراء التعديلات عليها إذا لزم الأمر .

لذا أرجوا منكم التكرم بالايعاز للمختصين في هذا الجانب بمراجعة هذه الاستبانة وتسجيل الملاحظات الهامة حولها، علماً بأن هذه المراجعات سوف تكون احدى أهم المحكات الرئيسة أمام المشرفين على هذه الرسالة لضمان صدق المحتوى لهذه الاستبانة.

ملاحظة: مرفق طيه أسئلة البحث الرئيسة، بالاضافة الى كتاب هيئة التعليم والملحق الثقافي بخصوص الباحث.

شاكراً لكم وقتكم وحسن التمين وحسن تعاونكم في مراجعة هذه الاستبانة...

هـــذا وتفضــلوا بقبـول وافــر التحيـــة والاحتـــرام

جمال عبدالله صالح قاسم
باحث بمرحلة الدكتوراة / المملكة المتحدة
التخصص (القياس والتقويم)

352

Embassy of The State of Qatar

Cultural Attaché s Office

LONDON

DATE :

REF. :

سفارة دولة قطر

مكتب الملحق الثقافي

لنـدن

التاريخ : 2006/8/15

الرقم :

٦/٤٤٩

الى من يهمـــه الامر

يشهد المكتب الثقافي القطري بلندن بأن السيد/ جمال عبدالله قاسم موفد من قبل وزارة التربية والتعليم لتحضير درجة الدكتوراه في مجال " القياس والتقويم التربوي " بجامعة هل.

وكجزء من دراسته يقوم المذكور بجمع بعض المعلومات المتعلقة ببحثه في الحقل التربوي القطري الذي نأمل أن يعود نفعه على البلاد ثاقبة في هذا المجال الحيوي مستقبلا.

وعليه، نرجو تفضلكم بتسهيل مهمة المذكور بتزويده بالمعلومات المطلوبة وفقا للنظام المتبع لديكم حتى يتمكن الطالب من اكمال بحثه الميداني في الوقت المحدد لذلك.

شاكرين لكم حسن تعاونكم،،

محمد عبدالله الكعبي

الملحق الثقافي القطـــري

ع/غ

P.O. Box : 35111, Doha, Qatar
+974 4652799 tel
+974 4678572 fax
www.education.gov.qa

HIGHER
EDUCATION
INSTITUTE

Ref.: HEI 8/2006/O 578

August 31, 2006

<u>To Whom It May Concern</u>

The Supreme Education Council's Higher Education Institute, State of Qatar, herby certifies that the student/ **Jamal Abdulla Saleh Qassim** is a bona fide Qatari student deputed by the Higher Education Institute for Doctorate in "Curriculum & Assessment" at the Centre for Educational Studies at University of Hull in the United Kingdom since 16/9/2003. The student will be conducting field research in the State of Qatar related to his Dissertation. The subject of his research is "Teachers Assessment Practices".

This letter is for identification purposes only. Any assistance offered to him will be appreciated.

s/Asmaa Abdulhady

Scholarship Office Director

- Scholarship Office – Student's File (MoE- UK) R.M.

Promoting Opportunities For Excellence

354

Appendix 11

Consent Submitted to the Ministry of Education

بســـم اللـــه الرحمـــن الرحيـــم

سعـادة السيـد / مساعـد وكيـل الـوزارة للشنـون التعليميـة   المحتـــرم

السـلام عليكـم ورحمـة اللـه وبركاتــه، وبعـد:

كجزء أساسي من بحث رسالة الدكتوراة التي أقوم بتحضيرها حاليا في جامعة هل بالمملكة المتحدة ، يتطلب القيام بتطبيق دراسة ميدانية على عينة عشوانية من المعلمين والمعلمات بالمدارس الثانوية الحكومية بالدولة. الهدف الرئيسي لاجراء تلك الدراسة الميدانية هو توزيع استبانة تم إعدادها خصيصاً لجمع البيانات الخاصة بنطاق بحثي والذي هو حول طرق تقييم تحصيل الطلاب لمعلمي المدارس الثانوية الحكومية بدولة قطر.

إضافة الى ذلك، فان أحد ركانز الدراسة الميدانية التي تم الاتفاق عليها مع المرشد الاكاديمي يتطلب التالي:

١- إجراء بعض المقابلات الشخصية مع عينة محددة من المعلمين والمعلمات (عدد ٤ معلمين + عدد ٤ معلمات).

٢- إجراء بعض المقابلات الشخصية مع عينة محددة من الطلاب والطالبات (عدد ٥ طلاب + عدد ٥ طالبات).

٣- الاطلاع على بعض الاختبارات الصفية للمعلمين والمعلمات.

٤- الاطلاع على بعض الواجبات الصفيه للطلاب والطالبات.

لذا أرجوا من سيادتكم التكرم بالايعاز الى مديري ومديرات المدارس الذين سوف يتم إختيارهم عشوانياً لتوزيع الاستبانات وإجراء المقابلات الشخصية بتسهيل عمل الباحث حتى يتم الانتهاء من الدراسة الميدانية في أقرب فرصة ممكنة.

ولكم جزيل الشكر وعظيم الامتنان على حسن متابعتكم واهتمامكم بتسهيل مهمة اجراء الدراسة الميدانية

ملاحظة: مرفق طية كتاب الملحق الثقافي وهيئة التعليم العالي بخصوص الباحث.

هـــذا وتفضـــلوا بقبــول وافـــر التحيــــة والاحتـــرام....

جمال عبدالله صالح قاسم
باحث بمرحلة الدكتوراة
التخصص (القياس والتقويم)
جامعة هل / المملكة المتحدة

Appendix 12

Letter Sent to Schools Principals

بسم الله الرحمن الرحيم

عزيزي مدير/ مديرة المدرسة

الســـلام عليكـــم ورحمـــة اللــه وبركاتــه، وبعـــد:

كجزء أساسي من بحث رسالة الدكتوراة التي أقوم بتحضيرها حاليا بالمملكة المتحدة، يتطلب ذلك القيام بتطبيق دراسة ميدانية على عينة عشوائية من المعلمين والمعلمات بالمدارس الثانوية الحكومية بالدولة. الهدف الرئيسي لهذا البحث هو الوقوف على الطرق المختلفة الحالية التي يستخدمها المعلمين والمعلمات لتقييم التحصيل العلمي لطلابهم وذلك في مدارس التعليم العام الثانوية بالدولة، بالاضافة لاقتراح السبل التي من شأنها تطوير عملية تقييم التحصيل العلمي للطلاب والطالبات بما يعود على العملية التعليمية بالنفع والفائدة.

لذا تم تصميم أداة الدراسة لجمع البيانات وهي عبارة عن استبانة موجهة الى المعلمين والمعلمات. وسوف يتم اختيار عينة عشوائية من مختلف المدارس الثانوية الحكومية بالدولة (بنين + بنات) لتوزيع الاستبانات على المعلمين والمعلمات لجمع البيانات الخاصة بنطاق البحث. وهذا الامر يتطلب مبدئيا اختبار أداة الدراسة (الاستبانة) للتأكد من مدى ملائمتها للتطبيق وقدرة المعلمين والمعلمات على فهم الفقرات الرئيسة بالاستبانة. إضافة الى الوقوف على ملاحظاتهم وتحليل البيانات الخاصة بالردود على فقرات الاستبانة .

لذا أرجوا منكم التكرم بالايعاز الى جميع المعلمين/المعلمات بالاجابة على فقرات الاستبانة بدقة وموضوعية حتى يتم تحقيق الهدف المنشود من وراء البحث، شاكراً لكم جميعاً حسن الاهتمام والتعاون بتسهيل عملية جمع البيانات ومتمنياً للجميع دوام التوفيق والنجاح.

ملاحظة: لا تتطلب الاستبانة كتابة الاسم، وفي حالة وجود أي استفسار خاص بالدراسة أو الاستبانة، الرجاء الاتصال على الهواتف المبينة أو استخدام البريد الالكتروني.

والسلام عليكم ورحمة الله وبركاته

جمال عبدالله صالح قاسم
وزارة التربية والتعليم
الجوال/ ٥٨٨٥٨٤٩
jqassim@hotmail.com

Appendix 13

The Questionnaire (Arabic translation)

دراسة استطلاعية حول الممارسات الحالية الخاصة بتقييم تحصيل الطلاب في مدارس التعليم العام الثانوية بدولة قطر

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القسم الأول

الرجاء وضع علامة (√) في المكان الملائم، وكتابة البيانات المناسبة في الفراغات المعطاة في الأسئلة (١ـ٥).

_____

١. الجنس

○ ذكر

○ أنثى

٢. المؤهل العلمي

....

٣. المادة التي تدرّسها

○ العلوم الشرعية
○ اللغة العربية
○ اللغة الانجليزية
○ الرياضيات
○ العلوم
○ العلوم الاجتماعية
○ أخرى (الرجاء ذكرها)

....

٤. سنوات الخبرة في التدريس

○ ١ـ٥
○ ٦ـ١٠
○ ١١ـ١٥
○ أكثر من ١٥

٥. عدد الطلاب في الفصل

○ ٢٠ـ٢٥
○ ٢٦ـ٣١
○ ٣٢ـ٣٧
○ أكثر من ٣٧

نهاية القسم الأول

</div>

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القسم الثاني

الفقرات التالية (٦ـ٧) تركز على مهارتك في بناء مفردات أسئلة الاختبار المتنوعة، وتطبيق اساليب التقييم الأخرى لقياس تحصيل الطلاب. الرجاء الاجابة على تلك الفقرات عن طريق كتابة رقم واحد فقط في خانة المقياس التي تقابل العناصر المراد قياسها وعن طريق الاستعانة بالمقياس التالي:

١ـ غير ماهر
٢ـ ماهر قليلاً
٣ـ لا أدري
٤ـ ماهر
٥ـ ماهر تماماً

_____

٦. مهارتك في بناء مفردات أسئلة الاختبار المتنوعة

المقياس (١ـ٥)	المفردات
	أسئلة إكمال الجملة
	أسئلة الاختيار من متعدد
	أسئلة الصواب والخطأ
	أسئلة المزاوجة (المطبقة)
	الأسئلة المقالية التي تتطلب الاجابة القصيرة
	الأسئلة المقالية التي تتطلب الاجابة المطولة
	أسئلة إعادة الترتيب
	أسئلة الرسوم

٧. مهارتك في تطبيق أساليب التقييم الأخرى

المقياس (١ـ٥)	الأساليب
	المناقشة الصفية
	الملاحظة الصفية
	المقابلات الفردية مع الطلاب
	تقييم الأنشطة الفردية للطالب
	تقييم الأنشطة الجماعية للطالب
	الاختبارات الشفهية
	تقييم مهارة الطالب في العروض التقديمية
	مشاركة الطالب في تقييم تحصيله الدراسي
	مشاركة الطالب في تقييم التحصيل الدراسي لزملائه

نهاية القسم الثاني

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357

القسم الثالث

الفقرات التالية (٨-٩) تركز على تطبيقك الحالي لأساليب تقييم تحصيل الطلاب. الرجاء الاجابة على الفقرات بكتابة رقم **واحد** فقط في خانة المقياس التي تقابل العناصر المراد قياسها و عن طريق الاستعانة بالمقياس التالي:

١- إطلاقاً
٢- نادراً
٣- أحياناً
٤- غالباً
٥- دائماً

٨. مفردات الأسئلة المستخدمة في إختبارك

المقياس (١ - ٥)	المفردات
	إكمال الجملة
	الاختيار من متعدد
	الصواب والخطأ
	المزاوجة (المطابقة)
	المقالة التي تتطلب الاجابة القصيرة
	المقالة التي تتطلب الاجابة المطوَّلة
	إعادة الترتيب
	أسئلة الرسوم

أخرى (الرجاء ذكرها)...
....
....

٩. أساليب التقييم الأخرى المستخدمة في قياس تحصيل الطلاب

المقياس (١ - ٥)	الأساليب
	الاختبارات القصيرة الأسبوعية
	الاختبارات القصيرة الشهرية
	الواجبات المنزلية
	الواجبات الصفية
	المناقشة الصفية
	الملاحظة الصفية
	المقابلات الفردية مع الطلاب
	تقييم الأنشطة الصفية الفردية للطالب
	تقييم الأنشطة الصفية الجماعية للطالب
	الاختبارات الشفهية
	تسجيل مساهمات الطالب الصفية
	مشاركة الطالب في تقييم تحصيله الدراسي
	مشاركة الطالب في تقييم التحصيل الدراسي لزملائه

أخرى (الرجاء ذكرها)...
....
....

نهاية القسم الثالث

القسم الرابع

الفقرات التالية (١٠-١٤) تركز على العوامل التي تؤثر في ممارستك لعملية تقييم تحصيل الطلاب. الرجاء الاجابة على الفقرات بكتابة رقم **واحد** فقط في خانة المقياس التي تقابل العناصر المراد قياسها و عن طريق الاستعانة بالمقياس التالي:

١- إطلاقاً
٢- نادراً
٣- أحياناً
٤- غالباً
٥- دائماً

١٠. المصادر التي توفر لك أساليب التقييم المختلفة التي تستخدم في قياس تحصيل الطلاب

المقياس (١ - ٥)	المصادر
	الاختبارات الصفية التي أعدّها
	اختبارات زملائي المدرسين
	الكتاب الدراسي
	دليل المعلم
	كتب أخرى غير الكتاب المدرسي
	اختبارات سابقة من نفس المدرسة
	اختبارات سابقة من مدارس أخرى
	مواقع تربوية على الانترنت
	وزارة التربية والتعليم

١١. العوامل التي تقلل من قدرتك على تطبيق أساليب التقييم المختلفة

المقياس (١ - ٥)	العوامـــل
	المنهج الدراسي المكثف
	الاختبارات المدرسية المكثفة
	قلة الوعي بأساليب التقييم الحديثة
	قلة التدريب على استخدام أساليب التقييم الحديثة
	كثرة عدد الطلاب في الفصل الواحد
	الوقت المحدد للحصة الدراسية قليل
	التقيد بمواصفات الاختبار
	التقيد بمعايير توزيع الدرجات
	ضعف المستوى التحصيلي للطلاب

١٢. الأهداف التعليمية وراء تطبيق عملية التقييم

المقياس (١ - ٥)	الأهــــداف
	تحديد مدى اكتساب الطلاب للمهارات الأساسية قبل البدء بالعملية التعليمية
	التعرُّف على خبرات الطلاب السابقة قبل البدء بالعملية التعليمية
	قياس مدى اكتساب الطلاب للمهارات المحددة لجزء تم تدريسه من المنهج الدراسي
	تشخيص نقاط الضعف والقوة عند الطلاب
	إمداد الطلاب بالتغذية الراجعة الخاصة بأدائهم الدراسي
	تخصيص الدرجات للطلاب
	نقل الطلاب من مستوى دراسي لآخر
	تزويد الطلاب بالشهادات الدراسية
	اصدار الحكم على مدى نجاح عملية التقييم نفسها

١٣. العوامل التي تؤثر على تقييمك لتحصيل الطلاب

المقياس (١ - ٥)	العوامل
	الشهادات الدراسية السابقة
	درجات الطلاب الحالية
	مشاركة الطلاب في الأنشطة الصفية
	السلوك الشخصي
	الدافعية الذاتية للتعلم
	الاهتمام بالواجبات الصفية
	الاهتمام بالواجبات المنزلية
	انطباعات المدرسين الآخرين عن الطلاب

١٧. آثار أساليب التقييم الحالية على تعلّم الطلاب

الآثار	المقياس (١ - ٥)
تشجع الطلاب للحصول على أعلى الدرجات	
تزيد من حدة التنافس بين الطلاب	
تشجّع الطلاب على المشاركة في الأنشطة الصفية	
تشجع الطلاب على الحوار فيما بينهم	
تشجع الطلاب على الحوار مع المعلمين	
تحفز الطلاب على التفكير الفعّال	
تزيد من حدة قلق الاختبار بين الطلاب	
تخلق جو من التعاون بين الطلاب	
تكسب الطلاب مهارات جديده	
ترفع مستوى الدافعية للتعلم لدى الطلاب	
تكسب الطالب معرفة مدى قدراته التحصيلية	

نهاية القسم الخامس

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القسم السادس

الفقرات التالية (١٨-٢٤) تركز على تدريب المعلمين والمعلمات على ألاساليب المختلفة لتقييم تحصيل الطلاب. الرجاء وضع علامة (√) في المكان المناسب وفقاً للتفاصيل المعطاة.

١٨. هل شاركت في إحدى ورش العمل الخاصة بأساليب تقييم تحصيل الطلاب؟
- ○ نعم
- ○ لا

اذا كانت الاجابة بـ (لا)، الرجاء الانتقال الى الفقرة (٢٢)

١٩. اذا كانت الاجابة بـ (نعم)، الرجاء الاشارة الى عدد ورش العمل التي شاركت بها
- ○ ١
- ○ ٢
- ○ أكثر من ٢

٢٠. متى كانت آخر ورشة عمل شاركت بها حول أساليب تقييم تحصيل الطلاب؟
- ○ ١ - ١١ شهراً
- ○ ١ - ٢ سنة
- ○ ٣ - ٤ سنوات
- ○ ٥ سنوات فأكثر

٢١. بصفة عامة، ما مدى فائدة ورش العمل تلك بالنسبة لك؟
- ○ غير مفيدة
- ○ محدودة الفائدة
- ○ متوسطة الفائدة
- ○ مفيدة جداً
- ○ أساسية

٢٢. هل ترغب في المشاركة في ورش عمل خاصة بأساليب تقييم تحصيل الطلاب ؟
- ○ نعم
- ○ لا

يتبع ص 4

١٤. قدرات الطلاب المعرفية التي يتم قياسها من خلال عملية التقييم

القدرات	المقياس (١ - ٥)
المعرفة (التذكر): القدرة على تذكر الحقائق والمعلومات	
الاستيعاب (الفهم): القدرة على إدراك المعاني	
التطبيق: القدرة على استخدام المعلومات في حل مشكلة	
التحليل: القدرة على تحليل المعلومات لتحديد الأسباب والوصول الى النتائج	
التركيب: القدرة على تنظيم الأفكار لتكوين صورة جديدة متكاملة ذات معنى	
التقويم: القدرة على تقويم المعلومات لاصدار أحكام على موضوع معين وفق معايير محددة يعبّر فيها الطالب عن رأيه	

نهاية القسم الرابع

القسم الخامس

الفقرات التالية (١٥-١٧) تركز على علاقة الطلاب بعملية التقييم. الرجاء الاجابة على تلك الفقرات عن طريق كتابة رقم واحد فقط في خانة المقياس التي تقابل العناصر المراد قياسها و عن طريق الاستعانة بالمقياس التالي:

1. إطلاقاً
2. نادراً
3. أحياناً
4. غالباً
5. دائماً

١٥. الوسائل التي يتم إستخدامها لانراك الطلاب في عملية التقييم

الوسائل	المقياس (١ - ٥)
شرح الأهداف التعليمية المراد تحقيقها	
تعريفهم بالمعايير التي يتم عليها تقييم تحصيلهم	
تعريفهم بالدرجة الموضوعة لكل عنصر من عناصر وسيلة التقييم	
مساعدتهم في معرفة ما يجب عمله مقابل مقياس معين سوف يتم عليه تقييم تحصيلهم الدراسي	
اعطائهم الفرصة لتقييم تحصيلهم الدراسي	
اعطائهم الفرصة لتقييم التحصيل الدراسي لزملائهم	
ارشد الطلاب لكيفية الاستعداد للاختبارات	
ارشد الطلاب لكيفية التعامل مع ورقة الاختبار	
تدريب الطلاب على الاختبارات السابقة	
تبصير الطالب بمدى تقدمه في تحقيق الأهداف	

١٦. طرق الاستفادة من نتائج تقييم تحصيل الطلاب خلال العملية التعليمية

الطرق	المقياس (١ - ٥)
إعادة شرح العناصر التعليمية التي لم يستوعبها الطلاب	
تعديل الخطة الدراسية بما يتناسب مع احتياجات الطلاب	
وضع برامج علاجية للطلاب الذين يفتقدون للمهارات الأساسية	
وضع برامج علاجية للطلاب الذين يعانون من صعوبات تعليمية شديدة	
تزويد الطلاب المتفوقين بمهارات تعليمية أكثر تقدماً تتناسب مع قدراتهم الدراسية	
دعم الطلاب بخطط واضحة لتحسين أدائهم الدراسي	

٢٣. اذا كانت الاجابة بـ (نعم)، الرجاء الاشارة الى نوعية الموضوع/ المواضيع التي ترغب في المشاركة بها. (الرجاء اختيار أي عدد ملائم)

○ طرق تقييم تحصيل الطلاب
○ بناء أساليب التقييم المختلفة
○ تطبيق أساليب التقييم المختلفة
○ تحليل نتائج أساليب التقييم المختلفة
○ الاختبارات المعيارية الوطنية
○ استخدام أساليب التقييم لرفع درجات الطلاب
○ استخدام أساليب التقييم لامداد الطلاب بالتغذية الراجعة
○ استخدام أساليب التقييم لتطوير قدرات الطلاب
○ استخدام أساليب التقييم لتطوير قدرات المعلمين على التدريس الفعّال

أخرى (الرجاء ذكرها)...........
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٢٤. ملاحظات أخرى تريد اضافتها بخصوص أساليب تقييم تحصيل الطلاب المستخدمة حاليا:

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شكراً على مشاركتك القيّمة في هذه الاستبانة

4

360

Appendix 14

Confirmation Letter from the College of Education at the University of Qatar

كليــــــة التربيـــــة
College of Education

جامعة قطر
QATAR UNIVERSITY

التاريخ: ٢٠٠٦/١٠/٩

(إلى من يهمه الأمر)

تفيد كلية التربية بجامعة قطر أن الطالب/ جمال عبد الله صالح قاسم، الموفـد في بعثة دراسية لدراسة الدكتوراه في مجال " القياس والتقويم التربوي" بجامعة هـل بالمملكة المتحدة ، قد تقدم للكلية لتحكيم استبانة موجهة إلـى المعلمـين والمعلمـات للوقوف على الطرق المستخدمة لتقييم التحصيل العلمي للطلاب، وقـد قـام بتحكيـم الاستبانة كل من:

– د. حصه عبد الرحمن فخرو   الأستاذ المشارك بقسم العلوم النفسية

– د. عائشة أحمد سلطان فخرو   الأستاذ المشارك بقسم العلوم التربوية

– د. بتول محي الدين خليفة   الأستاذ المساعد بقسم العلوم النفسية

– د. ياسر السمار   الأستاذ المساعد بقسم العلوم النفسية

وقد أعطيت له هذه الإفادة دون أدنى مسؤولية لدى حقوق الغير.

أ.د. حصه محمد صادق

عميد كلية التربية