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**Assessing home economics coursework in senior secondary schools
in Botswana**

By

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ABSTRACT

The aim of this research was to explore how examiners achieve and maintain high quality assessment during marking and moderation of the BGCSE (Botswana General Certificate of Secondary Education) Home Economics coursework in Botswana. In 2000, localization of the Cambridge Overseas School Certificate (COSC) to the Botswana General Certificate of Secondary Education (BGCSE) took place as per the recommendations of the Revised National Policy on Education (RNPE) document. This new certificate system, marked locally, allows for varied modes of assessment, with more emphasis being placed on continuous assessment. This also means that the assessment is school-based, with teachers centrally involved. As is procedure with this kind of assessment, it is subjected to moderation. However, implementation of this new assessment approach exposed, among other challenges, challenges in establishing dependability of teachers' assessment, possible increase in teacher workload, teachers' lack of expertise and confidence in undertaking the assessment scheme. This study, among other things, considers the forms of moderation used by the BGCSE to establish consistency in school-based assessment (SBA) and in so doing, it identifies that a dual form of moderation is used. The main research questions guiding this investigation were:

- How are teachers and moderators trained so that they may be competent examiners?
- How is quality assured during marking of coursework?
- How does the examining body (BEC) Botswana Examination Council ensure that the examiners adhere to the quality control mechanisms?

This was a qualitative study and the sources of data were semi-structured interviews, document analysis and the research journal. The eight respondents who participated in this study were Home Economics teachers, moderators from senior secondary schools and subject experts from the examining body who were all non-randomly sampled from across the country. Purposive sampling was used based on the respondents' characteristics relevant to the research problem. Data were analyzed using thematic content analysis to describe the phenomenon under inquiry and obtain detailed data. Major findings revealed inconsistencies between teachers and moderators' marks, and that even though there are procedures that underpin a high quality assessment regime, there is little monitoring by the Botswana Examinations Council (BEC) to ensure adherence by the examiners. Other key concerns included examiners' dissatisfaction about training and inadequate official support and guidance to equip them as competent examiners in general.

Keywords: Assessment; High Quality Assessment; Quality Control; Quality Assurance; Moderation.

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LIST OF ABBREVIATIONS

AEAA	Association for Educational Assessment in Africa
ASF	Assessment Systems for the Future
BCW	Botswana Council of Women
BEC	Botswana Examinations Council
BGCSE	Botswana General Certificate of Secondary Education
BGG	Botswana Girl Guides
CA	Continuous Assessment
CEA	Centre for Evaluation & Assessment
COSC	Cambridge Overseas School Certificate
DCDE	Department of Curriculum Development and Evaluation
ERTD	Examinations Research and Testing Division
FEDA	Further Education Development Agency
FN	Food and Nutrition
GCSE	General Certificate of Secondary Education
HE	Home Economics
HEAA	Home Economics Association of Africa
JCE	Junior Certificate Examination
MoE	Ministry of Education
MORI	Market and Opinion Research International
QAA	Quality Assurance Agency for Higher education
QCA	Qualifications and Curriculum Authority
RNPE	Revised National Policy on Education
SAQA	South African Qualification Authority
SBA	School-based assessment
SIAPC	Social Impact Assessment and Policy Corporation
SQA	Scottish Qualifications Authority
VTC	Vocational Training Centre

CHAPTER 1

ORIENTATION OF THE STUDY

1.1 INTRODUCTION

The aim of this study was to explore the moderation procedures during assessment of Home Economics coursework in Botswana senior secondary schools. Since the study took place in Botswana, it is important that the reader is first acquainted with the educational system in which the study took place. The next section therefore provides a brief overview of Botswana's education system with a detailed account of the Botswana General Certificate of Secondary Education (BGCSE) Home Economics curriculum as the main focus.

The discussion in this chapter is structured in the following manner: Section 1.1 is the introduction to the chapter. The general education system of Botswana is described in Section 1.2. Section 1.3 provides a general perspective of assessment. Section 1.4 discusses quality assurance in assessment. The BGCSE syllabus is outlined in Section 1.5. Section 1.6 gives the problem statement for the study. The rationale for the study is provided in Section 1.7. Aims and objectives are discussed in Section 1.8, while the research questions are outlined in Section 1.9. Section 1.10 summarizes the chapter and provides the structure of the dissertation.

1.2 OVERVIEW OF BOTSWANA'S EDUCATION SYSTEM

In the last decade, some significant structural changes have been initiated in the Botswana schooling and education system. These changes were preceded with the National Commissions on education (1977 and 1994) which have gradually brought in changes to the education system from the time of independence in 1966. (Botswana Government, Revised National Policy on Education, 1994). The major aims of the commissions were to instil quality into the education system.

Botswana's current education system is guided by the Revised National Policy on Education, Government Paper No. 4 of 1994 (RNPE). Government, therefore, in fulfilment of the goals set, continues to review the entire education system with the aim of improving the quality and relevance of educational programmes. This has been reflected in the National Development

Plan, 2003 and Vision 2016, (1997, p.15). The improvements include among other things, increasing the practical orientation of the secondary schools programme which, according to the Ministry of Education Senior Secondary Curriculum Blue Print (2000, p. 4), “combine[s] knowledge, skills and attitudes in a way that prepares students in the world around them, for the world of work and life long learning”. The government intends to prepare the people of Botswana for future growth and adaptation to the ongoing changes in the socio-economic context. The Botswana Government RNPE maintains that this will be “specifically the transition from an agro-based economy to the more broadly based industrial economy” (1994, p. 10).

Botswana’s secondary education system is divided into two levels by means of the national assessment programmes of which the Botswana General Certificate of Secondary Education is one. The other level is the three-year Junior Secondary school programme which follows immediately after completion of the seven-year primary education. The senior secondary programme builds on the ten-year basic education programme and seeks to provide quality learning experiences and it takes a student two years to qualify for the examinations. As a whole, Botswana’s education structure can be described as 7-3-2-4, (seven years primary, three years junior secondary, two years senior secondary and finally, a minimum of four years at university level). However, in addition, there are other institutions offering tertiary education such as Vocational Training Centres (VTCs).

As a result of the 1994 Education Commission, in the year 2000, localisation of the senior secondary curriculum was adopted in accordance with the recommendations of the RNPE document. The localisation of the Cambridge Overseas School Certificate (COSC) to the BGCSE was such that it will enable Botswana’s education system to withstand the international challenges and competition. This was in response to the RNPE government paper and the first National Commission of 1977 that advocated for localisation of senior secondary examinations for reasons which included:

- Opening a potential for curricula development and reviewing modes of assessment at senior secondary level, and providing linkages between junior and senior secondary curricula.
- Using subject-based examinations of the BGCSE instead of group-based COSC examinations.
- Infusing emerging issues like HIV/AIDS across subjects in the curricula.

- Considering cultural and local issues as COSC, an international examination, was not designed for local conditions and aspirations.
- Ensuring that the aspirations of Botswana in terms of ongoing socio-economic development, influenced curriculum development.

The Botswana Examination Council (BEC) supported the recommendations by developing the BGCSE curriculum, with a national educational assessment taken by the 16+ year olds. When doing the BGCSE course, candidates have the opportunity to choose from a variety of subjects as the content of the secondary curriculum has been intensified by inclusion of vocational subjects like Home Economics and Design and Technology. The MoE Curriculum Blue Print, which guides the senior secondary curriculum, is arranged so that there are two broad groups of subjects. These are the core subjects which are compulsory to all students, and the optional subjects. Home Economics belongs to the optional group of subjects, one with a practical nature which significantly requires exclusive resources that tend to be unaffordable for a whole or large class. The optional subjects are further grouped into natural sciences, creative, technical and vocational subjects and includes all practical oriented subjects or in other words vocational as can be seen from the Curriculum Blue Print. The table below (Table 1.1) reflects the subject groupings as per the two broad areas offered at the BGCSE level.

CORE GROUP	OPTIONAL GROUPS			
	HUMANITIES AND SOCIAL SCIENCES	SCIENCES	CREATIVE, TECHNICAL AND VOC	ENRICHMENT
English	History	Single Science	Design and Technology Agriculture	Third Language
Setswana	Geography	Double Science	Art Food and Nutrition	Physical Education
Mathematics	Social Studies	Chemistry	Computer Studies Fashion and Fabrics	Music
	Development Studies	Physics	Business Studies Home Management	Religious Education
	Literature in English	Biology		Moral Education
		Human and Social Biology (only for private candidates)		

Table 1.1: BGCSE subject groups (MoE Curriculum Blue Print, 1998)

Table 1.1 shows that from the variety of subjects offered at the BGCSE level, students have to take the core, which are a group of compulsory subjects, while options are electives from which students have the opportunity to choose a minimum of one subject.

The BGCSE is the only official state wide school certificate in the country, issued on completion of Form 5 (Matric equivalence). The BGCSE certificate is important to students, tertiary institutions, employers and the general public as it serves as clear evidence of the achievement of the students. Furthermore, it serves as a basis of certification and selection for further training and the world of work. Other features of the BGCSE are:

- a. It is administered and marked locally.
- b. All syllabi and grading procedures are based on the national criteria.
- c. Various modes of assessment are used to assess different knowledge, skills and attributes with more emphasis on continuous assessment. This allows candidates to show what they know, understand and can do. Continuous assessment, in different

forms of coursework, forms part of the examination and contribute towards certification.

d. Extensive training on assessment is done for teachers, especially those teaching practical subjects (MoE Curriculum Blue Print, 1998).

In fulfilment of one of the recommendations of RNPE (1994), which is: “in future certification of senior secondary school leavers, the role of continuous assessment should be fully recognised, with some weighting in the final grading and that teachers should be given adequate training to handle continuous assessment” (Botswana Government RNPE, 1994, p. 23), the government, through BEC, introduced coursework assessment for most senior school subjects, including Home Economics. Previously, the education system used the external examination model which is equated to summative assessment for certification. The change is attributed to the fact that the external assessment model does not allow room for an input from internal school-based assessment.

Such changes in assessment practices and procedures were implemented with the aim of improving the quality of teaching and learning (as teachers use assessment information to inform instruction) and eventually the country’s educational system. It was against such a background that Botswana’s education system has been undergoing transformation since independence.

1.3 ASSESSMENT ISSUES

Leathwood (2005) argues that we are all implicated in assessment systems, whether as students keen to gain a qualification or a good grade, teachers assessing students’ work, or managers assessing their employees or the government and its agents assessing courses, programmes and institutions. It is therefore essential that assessment be carefully done so that it serves the purpose for which it is meant. Assessment is important in that it is concerned directly with what is taught and what we value within the education system. Guidance needs to be provided to teachers, with the aim of improving assessment practices. Assessment is a major aspect in education and an essential component of teaching and learning. There is a need that all those involved with assessment have a full understanding of its purposes and methods. A study by Greatorex, Baird and Bell (2002) focused on what makes the General Certificate of Secondary Education (GCSE) marking reliable. It revealed that all aspects of

standardisation are important, particularly the mark scheme and the co-ordination meeting. This shows that it is crucial for awarding bodies to ensure that their examinations are reliable through use of the standardisation procedures. A related study by Barret (2000) in which he analysed the nature and the extent of marking errors on the examinations, revealed as principal findings that there was a need for moderation in the marking of examinations, so as to take into account the presence of errors. The study further found that only one examiner was free of errors. This aspect Barret (2000) interpreted as an issue of ownership since the examiner was a senior marker and it implies that if there is ownership among a team of markers, it is likely to improve the reliability of marking.

Wyatt-Smith and Castleton (2005) found very interesting reasons for the variations when teachers accounted for their judgement. The study further examines the process teachers use to arrive at judgement with emphasis on performance-based assessment. The findings show significant differences between teachers even though the marking guide followed a uniform pattern. Furthermore, the study shows that little is known about how teachers make judgements. Likewise in some studies, a clear difference exists between external assessment and teacher's judgement (Clayton, Booth & Roy, 2001; Radnor, 1993). There is a need to enhance teachers' professional knowledge about assessment. A full understanding of assessment can undoubtedly lead to changes in teachers' attitude and practices.

1.4 QUALITY ASSURANCE

It is important that quality assurance practices in education such as assessment are regarded as integral to teaching and learning. Quality assurance is an important exercise in the assessment process as it raises the quality of the assessment and in doing so, gives the public confidence in the qualifications awarded. Incorporating quality assurance procedures in assessment especially of the national examinations where coursework contributes to the final grade, plays a major role with the aim of ensuring that standards are known and met. Quality assurance has been identified as beneficial in assessment for several reasons such as “assuring validity and reliability; consistency of standards for the qualification and that quality and accurate standards are applied to all those being assessed” (SQA, 2000, p.10). Quality assurance practices are very important in assessment since certificates are awarded only to deserving students on condition that they satisfy the standards or the requirements of the qualification. Coursework assessment, the focus of this study, is nationally set and marked and it therefore

requires that quality control procedures play a significant role so that overall quality is assured, as it serves an important summative purpose. Coursework is assessed both internally and externally, which is reflective of quality assurance procedures. In subjects such as Home Economics, where the assessment is practical in nature, internally assessed work equally provides evidence of students' achievement. However, in order to enhance objectivity and consistency of the quality assurance of the assessment, procedures have to be in place in order to be effective.

Internal quality assurance procedures for coursework assessment are essential in order to check if marking adheres to set standards. Here the exercise is the responsibility of centres with subject experts ensuring that the assessment practices are consistent across teachers. Furthermore, expertise in assessment, subject content, subjectivity, and dedication are essential elements when internal assessment takes place (Barret, 2000). However, this may not be fully ensured by some examining bodies. It is advisable that the quality assurance procedures are functional, are understood by all examiners and that provision of adequate guidance is given in the form of documentation and regular training. The South African Qualifications Authority SAQA suggests that:

An outcome of successful internal moderation is that centres should avoid a scenario where an inexperienced member of staff is responsible for devising and or making assessment decisions without the assessment process being subject to wider scrutiny, expertise and endorsement within the centre (2003, p. 21).

Clearly this shows that there should be ways of enhancing assessment decisions through ensuring validity and reliability like double marking, external moderation, clarity of the marking criteria, and standardisation. Standardisation is a useful exercise in improving the reliability of examinations through the discussion and shared understanding of the marking criteria.

1.5 CONTEXT OF THE STUDY

1.5.1 The BGCSE Home Economics curriculum

The curriculum is such that at junior secondary level, students follow a general Home Economics programme, and they then have an option at senior level to specialise in any of the following three sub-areas: Home Management, Fashion and Fabrics and Food and Nutrition as illustrated in Table 1.1. Home Economics focuses on acquisition of knowledge and skills

that can be applied in the home and the world of work, and combines theory with practice. Continuous assessment in different forms of coursework form part of the examination and contributes towards certification. Coursework across the three sub-areas is in the form of practical examinations, experiments, folios and coursework which assess students' ability to apply knowledge and understanding in relation to the subject content. This study focuses only on the Food and Nutrition (henceforth FN) sub-area due to time constraints. Furthermore, FN is my area of interest and specialisation, which I am currently teaching and moderating, and therefore, it is appropriate that I investigate issues of quality assurance in its assessment.

Food and Nutrition is a programme of study that allows students an opportunity to develop a number of skills associated with problem solving, investigation and practical work. At the senior level, Food and Nutrition, through its acquisition of a broad-based knowledge useful for exploration and preparation, advantages students as it plays a role in allowing them entry into tertiary institutions and the world of work.

1.5.2 Structure of the Home Economics syllabus

The BGCSE, as previously mentioned in this chapter, was introduced into Botswana's education system as a replacement of the COSC examinations as it was meant to address students' needs in education. For the Home Economics syllabus, this brought major changes in terms of the syllabus content, teaching methods and assessment. However, a significant change to the syllabus was the greater emphasis in the development of practical skills as advocated by the RNPE, which was not the case with the previous curriculum (see Appendix A).

A significant feature of the current BGCSE FN syllabus is in terms of general layout. The syllabus is organized into units and the following modules, which form the framework of the syllabus:

- Nutrition and Health
- Food and Technology
- Consumer Education and Food Service Business

In this way, with the help of the general and specific objectives provided for the modules, the syllabus is able to guide the teachers in addressing the range of activities found in an FN class. The syllabus content is presented in the form of general and specific objectives for each topic;

however, there is no indication of depth for the topics which is assumed, will be determined by the needs and abilities of the students.

1.5.3 The role of practical work in the Food and Nutrition syllabus

It is a requirement that all students following the BGCSE Food and Nutrition syllabus, learn and are assessed for knowledge acquisition as well as practical and problem-solving skills. The assessment of Food and Nutrition problem-solving skills development is achieved through continuous coursework assessment of practical work. Coursework assessment in this syllabus is intended for both formative and summative purposes. However, the reality at classroom level is that the use of coursework assessment has been more geared towards summative purposes than formative assessment. Coursework is used in the BGCSE curriculum to generate a more representative grade of student performance. That is, coursework assessment has become more of an alternative assessment to the national examination than formative assessment. Although it is possible to use coursework assessment in a formative way, this has been very difficult to achieve within the Botswana context. From my experiences as a teacher, there is evidence that teachers are often under pressure to prepare students for external examinations, which have high stakes purposes like the BGCSE. Preparation for practical examinations under time pressure often forces teachers to encourage rote learning as students are drilled through more content in less time to cover the breadth of the syllabus. This situation makes learner-centred teaching challenging, especially if it is a new innovation in the system as both teachers and students need sufficient time to implement it and become familiar with it.

1.5.4 General Aims of the Senior Secondary Syllabus

The FN curriculum at senior secondary level is guided by three sets of general aims which include:

- aims of the senior secondary programme,
- aims of senior secondary Home Economics, and lastly,
- aims of senior secondary FN.

Of significance in all these aims, is the fact that they describe the learning outcomes of the syllabus as well as the contribution of the subject to students' learning (see Chapter 2, Section 2.4.1.1 for elaboration).

1.5.5 Teaching the BGCSE Food and Nutrition Syllabus

Since the late 1990s, the Botswana education system has used a teacher-centred approach in the senior secondary curriculum. However, the BGCSE FN syllabus, based on the British GCSE curriculum, uses the learner-centred approach for teaching and learning as recommended by the MoE Curriculum Blue Print (1998) and as a result, a learner-centred approach is now promoted. In this syllabus, this approach is exemplified through the investigative practical work together with the formative assessment of student work. Implementing the use of a learner-centred approach to teaching is a major innovation in the teaching of FN and Home Economics as a whole, because of the practical activities it brings to the students, teachers and education system. Yet another reason for using this approach in FN classes is that it promotes learning through a variety of methods such as group discussions, project work, investigations and problem-solving exercises. Such methods are used to a significant degree in general in Home Economics. A learner-centred approach to teaching and learning views teaching as the act of guiding and facilitating teaching, and learning as the active construction of meaning (Cheung, 2007; Yip 2005). For Home Economics, this is evident in cases where students build knowledge on their prior experiences. In practice, learner-centeredness has emerged in the BGCSE curriculum as students are expected to be responsible for their learning through carrying out the many tasks in practically oriented subjects like FN in which they are engaged. Here, use of the design process and discovery learning tends to reinforce the approach. Through FN and all the other Home Economics sub-areas, the learner-centred approach is seen as beneficial as it provides students with the opportunity to develop a conceptual understanding of the subject as they relate and apply the knowledge acquired to real life situations.

1.5.6 Assessment of the Food and Nutrition Syllabus

FN assessment allows students to demonstrate their ability on hands on activities as a practically oriented subject. FN assessment focuses on three main objectives which are knowledge with understanding, experimental and investigation as well as handling information and problem solving (BGCSE Food and Nutrition Assessment Syllabus, 2001 as seen in Appendix A). The assessment objectives indicate the skills and abilities which have to

be assessed. The BGCSE is similar to many other public examinations and its reform is based on the GCSE. Accordingly, for Food and Nutrition as a practical subject, the assessment is done through projects, practical work and written examinations. The assessment is characterised by a practical component usually done under controlled conditions, is school-based, and therefore it is marked by teachers using guidelines provided by the Examining body. This is often done at the end of the programme and the mark contributes to the students' final results. The project component is done within a certain period under the close supervision of the teacher. Routinely, teachers are expected to carry out the assessment of students on the practical skills as part of coursework assessment during the two years of study (Form 4 and 5). In the Food and Nutrition syllabus, the assessment focuses on a group of elements such as knowledge and understanding, handling information, and practical organisation in general.

The next section is a summary of the BGCSE FN assessment, all the assessment components as well as the scheme of assessment. The assessment is done through four papers of which all are compulsory (see Table 1.1 and Appendices A and B).

- Paper 1: Written paper (constitutes 50% of overall assessment). The paper is theory based and is marked by teachers using guidelines from the examining body which ensures its close supervision.
- Paper 2: Practical Test 1 (constitutes 5% of overall assessment). This is a practical examination marked internally by centres or schools but not externally moderated. However, guidelines and marking criteria are provided by the BEC.
- Paper 3: Individual Study. (Constitutes 30% of overall assessment). The paper uses a problem-solving approach with the design process style. The role of the teacher is to supervise the project closely, and as is procedure with school-based projects, the teacher is expected to mark them. The project is then subjected to external moderation to ensure that the results are valid and reliable.
- Paper 4: Practical Test 2. (Constitutes 15% of overall assessment). This is a practical examination completed under controlled conditions and is teacher marked, then externally moderated (BGCSE Food and Nutrition Assessment Syllabus, 2000).

Previous assessments, conducted by the Cambridge Local Examinations Syndicate, consisted of only two papers with a weighting of 50% each, (written and practical examinations). From

the above, it can be seen that the current assessment system gives more emphasis to continuous assessment, as described in examples given in the table below.

Paper	Paper set by	Conditions	Paper marked by
Paper 1	BEC	Controlled	Marked by subject experts and supervised by BEC
Paper 2	Teachers	Controlled	Teachers, and no moderation done
Paper 3	Students develop themes based on BEC guidelines	Not controlled	Teacher, externally moderated
Paper 4	BEC	Controlled	Teachers

Table 1.2: *Categories of assessment in the Food and Nutrition syllabus*

Table 1.2 illustrates the categories of the BGCSE FN assessment distinguished by who sets, who marks and whether the assessment is controlled or not. Below is a further breakdown of the categories of the components as illustrated in the above table.

- Set by teachers or awarding body (BEC)
- Carried out under controlled conditions or
- Marked by teachers or awarding body (BEC)

One distinguishing feature about the new Food and Nutrition syllabus from the above discussions is the weighting given to coursework. However, weighting given to coursework varies between subjects and specifications. The BEC sets examinations using the blue print, which is guided by the syllabus objectives. At present, the BGCSE uses both internal and external assessment for Home Economics. Internal assessment is not externally moderated, while externally is moderated for quality assurance purposes. Coursework from the above example will be Papers 2, 3 and 4. In the Home Economics curriculum, coursework assessment is intended to have both formative and summative purposes: formative in the sense that the information gathered about the student's achievement is intended to promote teaching by helping students to acquire skills and knowledge, and summative as the assessment is used to grade students which contributes to the final programme mark, as with the BGCSE. The two purposes of assessment are, therefore, expected to be carried out in tandem. The task of implementing and accomplishing the balance between the two is difficult and may need specific skills, pedagogy and external support (Gipps, 1994; Harlen & James,

1997; Black & Willam, 1998). An elaboration on purposes of assessment namely (formative and summative) in relation to coursework is given in Chapter 3 of this study.

During the marking of FN coursework, banded mark schemes derived from the criterion-referenced approach are used. Criterion-referenced means that judgement is made against pre-specified criteria which are further described as ‘can do statements’ as they are indicators and not criteria *per se* (Baird et al., 2004). A banded mark scheme, according to (Greatorex, Baird, and Bell, 2002) is one which has a series of descriptors each associated with a band of marks (see Appendix B). Often when examiners use such a mark scheme, they apply a principle of best fit as they decide which level best describes the candidate. In addition, there is a general guide for the BGCSE FN, showing a range of marks that could be applied. For example, one of the level descriptors from this guide reads: “22/35 to 35/35 (80% to 100%), for very good methods, excellent timing and variety of skills” (BGCSE scheme of assessment, 2004).

This mark, according to the above level descriptor, will only be given to very able candidates as illustrated in the BGCSE scheme of assessment (2004). From the assessment described in Table 1.2 above, this kind of mark scheme will be used to mark Papers 2 and 4.

1.6 PROBLEM STATEMENT

Since the introduction of the BGCSE syllabus in 2000, all Home Economics teachers in senior secondary schools are expected to mark coursework for candidates. This is then moderated externally by the BEC. However, external moderators have constantly reported huge marking errors or inconsistencies between their marks and those of the teachers. The inconsistencies in marking have been evident during the various moderation and standardisation meetings such the one where one of the examiners alluded to the fact that:

A workshop is needed to train teachers in marking of coursework, because if all of them know what is expected, there would be no need for remarking (BGCSE Home Economics Moderation meeting, 2003, p.8).

The above excerpt shows teachers’ concern about the lack of support and training in the assessment they are expected to carry out. Consistent with inadequate support and training of moderators are the findings of several studies in the United Kingdom on teacher assessment that looked at the potential bias in teacher assessment and conditions affecting dependability

of assessment (ASF Working Paper 2, 2005). The findings of these studies were that biases in teacher assessment can be minimized through focused workshop training. However, the studies did not investigate the impact of training. It is important in the current study to institute more training and to reflect on the variables that impact on improving assessment. One moderator expressed concern about the variations in marking that often necessitate remarking by citing her experiences as follows:

At some centres, I had to remark all the folios because there were differences in terms of marks between the moderators and the teachers. A big margin of + or – 10 was common (BGCSE Home Economics Moderation Meeting, 2003, p. 10).

Generally, moderators emphasised the need for serious training of teachers based on their experiences from the centres to which they were assigned. The above-mentioned variations in marking do not reflect good assessment practices at all, particularly as an examination review workshop was conducted for teachers in 2002 in order to reduce the variations in marks and improve the handling of continuous assessment. In 2004, there was more evidence from similar forums to suggest that the problem of variations in marking was still persistent in addition to another concern with regard to Home Management, one of the Home Economics sub-areas. Home Management moderators during a marking workshop drew the attention of the BEC to the fact that there was a difference in the marking criteria between the assessment syllabus and the adjusted marking criteria. Such differences in marks awarded by teachers who are not familiar with the marking criteria often requires moderators to remark all papers within a centre (BGCSE Home Economics Marking Workshop, 2004).

Yet again in 2000, more problems related to the varying standards of examiners in coursework assessment were revealed by various moderators and this warranted further training by the examining body (BGCSE Home Economics Moderation Meeting, 2003, p.11) During a marking workshop in June 2006, more evidence regarding marking variations was mentioned as the subject officer highlighted the purpose of the workshop and commented that:

Last year very high marks were awarded to candidates so BEC had to use some statistical method on the marks so as to be able to grade accordingly. She goes on to say that the differences between teachers' and moderators' marks were very high, in some instances as high as 20 marks (BGCSE Home Economics Marking Workshop, 2006).

Worse still, another BEC officer who had observed similar differences raised more concerns during the same workshop and had this to say:

There are problems across the entire practical subjects not only Home Economics. Standards applied in schools are not consistent even though the criteria are the same; the outcome is different year after year. There is lack of consistency from one school to another, and between school teachers, teachers and moderators, moderators and moderators (BGCSE Home Economics Marking Workshop, 2006).

The above narratives from moderators and subject officers provide evidence that could be interpreted to mean that maintaining standards of excellence during assessment of coursework is difficult. As a result, it poses challenges not only for teachers across practical or optional subjects, but for the examining body as well. Main concerns were inadequate training, variations in marks between teachers and moderators, and poor assessment practices in general. However, as some researchers have observed (Yung, 2001; Fullan, 2001), assessment of this nature often brings with it such irregularities especially when it is a new innovation in the education system. A comparison of this evidence with literature on the same topic requires mentioning in support of these views. Roehrig and Kruse's (2006) study on teacher and school characteristics in curriculum implementation revealed that implementation of the curriculum was strongly influenced by teacher beliefs and teaching. In reality, the conditions influencing the practice of assessment by teachers include the way in which they interpret the requirements for that particular assessment, and its guidelines. The importance of these teacher beliefs and practices is underlined by evidence from a study on the implementation of regulations for school-based assessment of practical biology conducted by Yung (2001). He found that teachers followed the regulations mechanically, and felt that it strained their teaching, while others took advantage of the assessment. This is associated with teacher beliefs and practices as it supports the premise that teachers have theories and beliefs which play an important part in their behaviour and practice. Therefore, unless these beliefs are identified, the role of the teacher, as Yung (2001) states, will continue to be challenged by the new assessment system.

Fullan (2001) however, draws attention to the fact that beliefs are not easy to change. Fullan's (2001) study reveals that when teachers are aware of their expectations, uncertainty is reduced and change may occur particularly as they would be able to tell when they have changed their practice.

To sum up, these above cited researchers show that teacher beliefs and their lack of clarity and have an impact on how they generally assess. Therefore, this study seeks to explore how examiners achieve and maintain high quality assessment during the marking and moderation of Food and Nutrition Coursework.

1.7 RATIONALE FOR THE RESEARCH

The Food and Nutrition (FN) syllabus was developed in 1999 and implemented in 2001. This exercise was rushed to meet deadlines set by policy makers. There was therefore inadequate time for piloting to ascertain whether there was need for realignment before fully implementing (MoE Curriculum Blue Print, 1998). Some negativity and uncertainty prevailed among teachers as implementers of the programme due to inadequate training, resulting in lack of understanding of what was expected. Fullan (2001) advises that when teachers are aware of their expectations, then uncertainty is reduced. This can be assured through training and teachers' full involvement in the innovation. However, little research has been done in checking the extent to which the FN programme is being implemented, and whether objectives are clear and realistic in terms of assessment.

To date there is little in-service provision for teachers to help them cope with the subject demands especially the assessment of the new FN programme. This has resulted in a number of debates and uncertainties about continuous assessment as teachers feel it increases their workload exacerbated by inadequate training on assessment of coursework. Utlwang and Mugabe (2004) reveal that the majority of teachers do not benefit from focused training and yet they are expected to supervise and mark coursework. Based on this research evidence, it is likely that assessment decisions may not be objective and consistent since some teachers complain about inadequate training and feel that they are therefore not competent as examiners (Utlwang & Mugabe, 2004). This study should draw the attention of the BEC to illustrate that more needs to be done in ensuring that assessment decisions are based on the criteria laid down in the national standards. Yung (2001) is of the view that some teachers/moderators may not be able to separate their roles from that of teacher and that of assessor. He is also concerned that if both internal and external moderations continue to reveal significant inconsistencies, the assumption is that moderation is not being carried out

effectively and/or little knowledge of what is required has been disseminated. Therefore, important elements for a valid and reliable assessment are absent.

The above description illustrates the important role this study is likely to play in terms of investigating the quality and effectiveness of the quality assurance procedures in Home Economics coursework. Furthermore, this study is important since the variations experienced and described during the various Home Economics forums need to be studied exhaustively so that appropriate support is developed in order to address the problems effectively.

Furthermore, there is limited research in the field of Home Economics since most studies in Botswana (even though conducted with teachers and being assessment-related) do not focus on maintaining standards during assessment but instead focus on a general perspective, therefore quality of the assessment is not achieved. This study contributes to literature with regard to practically oriented coursework and provides the BEC with information for future decisions regarding the use of coursework assessment.

As a Home Economics teacher who has taught and examined both the new and old syllabus, I regard the BGCSE coursework worth investigating particularly the controversies surrounding assessment. Unless examiners' underlying assumptions are thoroughly investigated and refocused, it will be difficult to change their assessment practices to ensure that the assessment is reliable. Since the review of the syllabus is underway, assessment practices warrant significant emphasis. This study, with its implications for practice and policy in assessment, provides timely input for that review. This study proposes policy improvement that will hopefully increase consistency and validity of the assessment practice. Finally, in researching how examiners achieve and maintain high quality assessment during marking and moderation of Food and Nutrition coursework, I hope to gain some insights into the competence factor in maintaining high quality assessment during marking and moderation. The corollary is how to incorporate the competence factor into the Food and Nutrition instructional and assessment processes.

1.8 AIMS OF THE STUDY

In light of the statement of the problem and rationale discussed in the previous section, the following aim and objectives were identified in order to fulfill the requirements of this study as well as to guide it. The aim of the research is:

- Will be to explore how examiners achieve and maintain high quality assessment during marking and moderation of Home Economics coursework.

Several objectives were:

- Will be to determine the content knowledge of Home Economics as a school subject.
- Will be to investigate the training that teachers and moderators undergo to become competent examiners.
- Will be to explore the quality control mechanisms in assessment of Home Economics coursework, and what the BEC does to ensure that they are adhered to.
- Will be to establish the extent to which the quality control mechanisms in place minimize the variations between teachers and moderator's marks.

1.9 RESEARCH QUESTIONS

Derived from the problem statement, the main research question for this study was:

How do teachers and moderators assess Home Economics coursework in senior secondary schools in Botswana?

The study also addressed the following three sub-questions providing a framework for the research.

1. How are teachers and moderators trained to equip them as competent examiners?

By investigating the examiners' training, I was able to find out if the training is adequate and of a standard which will allow teachers to assess objectively. This also allowed for data gathering on the examiners' practices and their stated beliefs, and therefore occurrences of this disjuncture were better investigated highlighting a new research focus. Research has also shown a basic unwillingness on the part of teachers to reorient their practices for a new and unfamiliar innovative approach (Byrd & Doherty, 1993; Anderson, 1996).

2. How is quality assured during marking of coursework?

By investigating the quality control measures in place during assessment, I was able to establish whether examiners are aware of the importance of quality assurance during coursework assessment.

3. How does the examining body (BEC) ensure that the examiners adhere to the quality control mechanisms?

BEC, as an awarding body, has the responsibility for conducting all stages of the assessment and the qualifications it offers including ensuring that the quality assurance system in place is functional. The above research questions established if the BEC is performing the primary responsibility as it should, as well as revealing if training and support is given to the examiners in order to ensure that they carry out their responsibilities as required by the authorities.

1.10 SUMMARY

This chapter has provided the background context of the study in terms of aims and purpose of the study. The statement of the problem provides evidence that maintaining standards of excellence during assessment of coursework is difficult and poses many challenges to assessors, especially where training is perceived as inadequate. A further attempt was made to show the major transformations that Botswana's education system has been undergoing. Changes in the assessment practices and procedures are concerned with teaching and learning, with the overall aim of improving the quality of education in the country.

The dissertation is structured as follows: Chapter 1 serves as an orientation of the study as it provides the background context of the investigation. Chapter 2 is a theoretical chapter that examines in detail what Home Economics entails in general as a school subject. It includes a discussion of its structure, syntax and substance, the various components that make up Home Economics as well as its role or place in the curriculum. Chapter 3 presents a detailed literature review on assessment, with more emphasis on moderation procedures of coursework assessment as it is the focus of this study. The review also discusses the systems theory model on which the conceptual framework underpinning the study is based. Chapter 4 presents the research design and methodology used in the study. Focus is on the research questions, the rationale for the choice of qualitative research, data collection, presentation and data analysis procedures. Chapter 5 presents the research findings emerging from the semi-structured interviews and document analysis, structured according to the research questions. Chapter 6 is the concluding chapter of the study and includes a synopsis of the findings, recommendations and suggestions for further research relevant to the study under inquiry in the context of Botswana.

The next chapter discusses Home Economics as a school subject in the curriculum.

CHAPTER 2

HOME ECONOMICS AS A SCHOOL SUBJECT

2.1 INTRODUCTION

The intention of this chapter is to track the formal beginnings of Home Economics as a discipline since its inception during the 19th to the 20th century. A detailed background will be given on trends and developments that include the name change from Domestic Science to Home Economics and Family and Consumer Science. The information will be provided in order to show how these name changes have contributed to the development of this discipline's professional identity. This study is situated in Botswana's education system and an attempt is made to highlight how Home Economics as a subject has evolved over the years from being a stereotypical housewives' subject to a more science-oriented subject.

The discussions further focus on Home Economics as a subject in the curriculum, that is, its role, domains and nature in general. In the context of the study, emphasis on the subject areas or domains, highlight the central focus of FN, Fashion and Fabrics, as well as Home Management. Here, an attempt is made to illustrate the uniqueness of the subject-areas, which concentrate on people's everyday lives with the aim of achieving the Home Economics goal (Richards, 2000). Again, an insight into these subject-areas will show how the subject content has been responding and changing over time as a result of the changing societal needs and challenges in everyday life. Finally, a summary captures the trends of Home Economics in general. These reflect on whether the barriers of perceptions and gender stereotypes associated with the discipline have been minimized, and if courses offered at present reveal the goal of the discipline and its worth in most curricula. The discussions are organized into the following section headings: Section 2.1 introduces the chapter. Section 2.2 discusses the history of Home Economics. Section 2.3 provides the role of Home Economics in the curriculum. Section 2.4 looks at Home Economics in Botswana and finally Section 4.5 gives a conclusion of the chapter.

2.2 HISTORY AND BACKGROUND OF HOME ECONOMICS

As a way to keep the components of Home Economics as a professional field, it is appropriate to reflect upon its origins in order to gain some perspective for the future. This section therefore attempts to trace Home Economics from its formal beginnings to date.

Home Economics was developed in the late 19th and early 20th centuries (Simmerly, Ralston & Harriman, 2000). Prior to this, formal training for women was virtually non-existent. Evidence shows that Home Economics first emerged as a movement, which was pioneered by Ellen Richards, a professor at the Massachusetts Institute of Technology (Goldsmith, 1993). Its aims were “To elevate women’s role as homemakers to the status of a profession equal to those of men through the efficient and scientific organization of housework” (Goldsmith, 1993, p. 46).

The early Home Economics movement above drew heavily on nutrition; diet and science of household management as a reflection of the founder’s field of study, hence the influence on application of scientific techniques to this discipline. Additionally, these scientific techniques are demonstrated in the courses offered during this era that focus on teaching scientific approaches to domestic skills. The preferred name then for the discipline was ‘domestic science’, which implied an emphasis on science, nutrition and sanitation (Simmerly et al., 2000).

After several ongoing debates concerning the identity and purpose of Home Economics, it was then formalised as a profession between 1899–1909 (Richards, 2000). Since its inception, Home Economics has suffered misconceptions about its mission and vision, especially its worth in education and society. Women were at the centre of these controversies as Home Economics was long viewed as a feminine field. It was not recognised as a viable profession, as it was associated with cooking and sewing by females with limited male involvement. Therefore, the profession was criticised for separating male and female spheres of activities.

However, many educational reforms that occurred in the United States during the 20th century changed the way women were accepted into the educational system, with a large number being involved in the introduction of a formal way of teaching domestic science (HEARTH, 2005). This trend was of benefit to the discipline since it then gained recognition in the academic field, especially in higher education.

Several federal government acts in the United States are seen to have contributed significantly to the growth and promotion of Home Economics as a discipline. Among them were the Bureau of Home Economics of 1927, the Smith-Lever Act that unveiled funds for extension work in Home Economics and Agriculture, the Smith-Hughes Act of 1917 and a number of Vocational Acts throughout the 1960s and 1970s (Tuszka, 2002). The Acts worked towards achieving one aim, which is to raise the status and respectability of Home Economics.

2.2.1 Definitions of Home Economics

Ellen H. Richards (1842-1911), was a chemist and leader in applied science, and a pioneer in creating the field of Home Economics. She was highly influential in developing the name and the definition of the discipline, as she believed that scientific knowledge and information could and should be used to improve the daily lives of people. According to Richards (2000), it has not been easy to define Home Economics due to the broad scope and nature as well as the many changes and developments it has undergone.

Home Economics has been defined in many different ways since its inception during the 19th century. Changing and refining the definition and name of the discipline was seen repeatedly as a way of describing the totality of the profession and to improve its identity, image and recognition (Richards, 2000). Although the definitions were numerous, a single widely acceptable definition was adopted in 1902, which is: “Home Economics is the study of laws, conditions, principles and ideals concerned with peoples’ immediate physical environment and their nature as a social being, and specially the relation between those two factors” (Simmerly et al., 2000, p. 75).

In examining the above definition, Ellen Richards’ philosophy of Home Economics emerges. She was convinced that technical knowledge could take control over both the physical and social environments, and thus improve daily life (Murray, 1993). It is evident that this definition highlights a reflection of the scientific knowledge and information that was believed to improve people’s lives. Even though this definition was accepted at that time, there were mixed feelings as it did not seem to convey the mission, breadth and scope of the field of study (Simmerly et al., 2000).

In later years, the pioneers, together with some home economists, developed several other definitions, which were thought to be appropriate as they encompassed the mission of the

discipline, namely: “An interdisciplinary field which draws knowledge and concepts from other disciplines and applies them to the home” (SIAPAC, 1990, p.8).

“Interdisciplinary” in the definition indicates the drawing of information from several other fields such as science and economics that allows the integration of such knowledge. Furthermore, practical application of such information is made possible. In essence, the definition implies the improvement of family and homes through the acquisition of specific practical skills. Murray (1993) suggests that “Almost every acceptable definition of Home Economics includes the well-worn phrases that we are all familiar with and use repeatedly ourselves: the well-being of families, the improvement of home life, the preservation of values significant to the home” (p.61).

The definition is concordant with the views that the concepts of home and family are closely intertwined with Home Economics and they have an impact on the execution of the curricula at all levels of the education system. For the purpose of this study, the following definition will be adopted, as it is universal and applicable to the context of this particular study: “Home Economics is the study of laws, conditions, principles and ideals concerned with peoples’ immediate physical environment and their nature as a social being, and specially the relation between those two factors” (Simmerly et al., 2000, p. 71). More importantly, it provides the context for the field when it initially emerged and is part of a larger social reform movement.

In 1994, yet another name change was initiated in the United States. The name changed from Home Economics to Family and Consumer Sciences and this name was adopted in a number of secondary schools and higher institutions and therefore practitioners were then called ‘Family and Consumer scientists’ rather than Home Economists. Simmerly et al., (2000) asserts that the name ‘Family and Consumer Sciences’ was a preferred name as it was not viewed as subject matter or content but as recognition that individuals are both family members and consumers, both of which are seen as being important roles in society (p. 78).

However, in Africa, several conferences have been held on the re-conceptualisation of Home Economics and the changing of subject content, but the name of the profession in countries like Botswana, Swaziland remains unchanged (Murray, 1993).

2.2.2 The changing names of Home Economics

Home Economics, as traced from the 19th century, shows that a number of changes have taken place to date in order to gain recognition and acceptance especially as an integral part of the curriculum. Some of these changes include the name change, which was attributable to what participants of the Lake Placid Conference in 1993 then referred to directly as the growth and acceptance of the field (Goldsmith, 1993).

Domestic Science was the name accordingly adopted at the beginning as it was used to represent the teaching of regular academic subjects to make secondary school life more real to students (Jax, 2000). Emphasising the preference and relevance of the name Domestic Science to the discipline, Simmerly et al., (2000) argue that it also implied emphasis on science, nutrition and sanitation. Furthermore, it was a way to move women trained in science into employment in academics and industries. It seems that through the years, considerable debate surrounding the name of the discipline occurred with it acquiring several names; for example, *Domestic Science*, *Science of Living*, *Domestic Economy* or *Housecraft*. However, ‘Home Economics’ was adopted because pioneers like Dewey argued that “by calling it Home Economics and classifying it as a social science, more people would have greater access to it than they would to a life science reserved as a private domain (Simmerly et al., 2000). Important still, and a distinctive feature about this discipline is the fact that it has a common purpose, which is to “meet specific and general needs of individuals and families” (Jax, 2000, p. 24). Therefore, today, the discipline is generally known as *Home Economics* although some countries may still use a variety of names.

However, the name Home Economics was associated with college and graduate work, while Domestic Science fits work and courses in secondary schools. This trend was thought to be positive for the discipline, as it was believed that the subject Home Economics would find a logical place in the college and university curricula and not be confused with mere household arts (Richards, 2000). It must also be noted that, partly, the name was necessitated by the shift of focus in the subject content as it became more diversified and specialised in order to take into consideration societal and family changes.

2.3 HISTORY OF HOME ECONOMICS

In the 20st century, there was a professional consensus about the aims that underpin Home Economics in schools. As the subject grew from strength to strength and the world became a global community, career intentions became clearer and vocational decisions became more imminent (Richards, 2000). The aims of Home Economics today, in terms of a students' learning experience, tend to emphasise the development of the subject and improve technological capabilities. It is mostly concerned with using and managing human and material resources for the benefit of individuals, families and society. Its relevance is clearer than in the past. The effectiveness of people in their roles and vocations in life and the likelihood of fulfilment are largely governed by their ability to manage and achieve a quality lifestyle. Home Economics thus aims to foster an awareness of that inter-relationship and to provide decisions about individual's own way of living (Simmerly et al., 2000).

The promotion of good health is closely linked to quality in lifestyle. Therefore, the importance of the role of Home Economics as an integral part of the curriculum cannot be overemphasised. In a country such as Botswana, which has large incidences of HIV/AIDS and home-based care programmes and with mounting evidence of poor parenting skills affecting all strata of society, a good Home Economics education is needed more so now than previously. This means that Home Economics has played and will continue to play a crucial role both in formal and non-formal education proving to be somehow successful and valuable in acquisition of knowledge and skills needed to improve the quality of life.

According to Johnston and Armstrong (2000), Home Economics is pragmatic; this is in relation to what the discipline offers today's students. Pragmatism in education is defined as "a means for examining traditional ways of thinking and doing, and where possible desirable, reconstructing the approach to life more in line with the human needs of today" (Johnston & Armstrong, 2000, p. 34). Many of the practical activities undertaken in Home Economics are structured to give students opportunities to understand what difficult concepts are in real life.

Home Economics in the curriculum subscribes to this concept of practical activities by allowing students to deal with practical problems of life and application of efforts to meet the needs of real people (Department of Curriculum Development and Evaluation, 2001). The syllabus achieves this by providing opportunities for students to develop skills associated with

communication, decision-making, problem solving and critical thinking that then allow them to examine issues that daily affect those individuals, their families and the community. Additionally, Johnston and Armstrong (2000) have observed that the discipline of Home Economics encourages a healthy combination of education for vocation and education for a balanced human existence. For example, subjects like Business, Computer Science and Home Economics offer a practical vocational content, which is reflected in the varied hands-on activities in which they are engaged.

The practical vocational content offered by Home Economics also focuses on human development. In support of this, Rees, Ezell and Firebaugh (2000) argue that the Home Economics content is designed to promote concept development and application, thorough investigation and problem solving. The main idea underlying concept promotion as an approach is for the students to have an opportunity to be able to work as team members in the world of work and be able to identify problems and seek solutions to them. The promotion of concept approach requires the students to obtain basic knowledge and skills for expertise of specialties from the different Home Economics sub-areas. Currently, we see specialisation as a major thrust in our society (Rees et al., 2000) and Home Economics contributes towards this practice significantly by having a variety of sub-areas to choose from which include child development, consumer education, family resource management and others as offered by the various institutions of higher learning. Students are interested in specialisation as they wish to become professionally skilled and have been shown to be meaningful in assisting them in the achievement of their orientation in life and attaining their professional goals.

As evidenced by the trends in specialties, it is worth mentioning that Home Economics today is one of such disciplines with discreet areas of specialisation as can be seen from the many sub-areas. Rees et al. therefore describes the specialisation offered by Home Economics programmes as “institutional response” (Rees et al. 2000, p.32) to technological, social and economic changes. Students of Home Economics need therefore, to be made aware of these societal and family changes, as they affect changes in jobs, in terms of kind, location and on the other hand, linked with this, is technology, which is ever expanding. Future social and economic developments are quite challenging as they show a shift in roles within family and society. Home Economics therefore, responds to this by preparing students to share roles within the home and in the work place on a less gender-stereotyped basis.

A less gender-stereotype is thus justified on the basis that Home Economics, through its diversified and comprehensive programmes, could be described as ‘offering jobs.’ By introducing students to a wide variety of potential career paths, they are made aware of career opportunities relating to each sub-area. In support of this focus, Johnston and Armstrong (2000) are of the view that today’s students appear to be looking beyond the classroom, selecting a field that will result in a lucrative career. Home Economics therefore offers students pursuing it a wide variety of career paths and diversified programmes.

Teaching the Home Economics content through a student-centred approach, which expects students to be able to explore, investigate and produce items, allows them to relate and apply knowledge gained to real-life situations and further shows the relevance of the discipline in real life. The BGCSE Home Economics syllabus attempts to achieve this by also making evaluation an integral part of the delivery. Such opportunities where students make judgements enable them to reflect and improve on their own work.

Home Economics programmes at secondary and tertiary levels are planned to provide comprehensive and multi-disciplinary training skills. Pendergast notes that:

Although it is multi-disciplinary, it does not teach a skill for the sake of that skill, it teaches for application, it teaches for informed decision-making in endless scenarios, it teaches evaluative and critical thinking skills, it empowers individuals no matter what the context (2005, p. 20)

This is demonstrated, for example, in many curricula today by the practical activities students undertake. Such skills that cannot always be learned in a theoretical context include the ability to plan, establish priorities in relation to resources available like time and money. Importantly, these skills also allow students to recognise the importance of families at the core of everything that is done. This is also encompassed in the purpose of the discipline, which is “to prepare young people in certain important skills of living as individuals and establishing and developing a stable environment for their families” (Scottish Certificate of Education Standard Grade Arrangements in Home Economics, 2001. p. 4).

In summary, Home Economics is of great importance in the educational system today. No other discipline incorporates in its curriculum as many pertinent life skills that will help students succeed independently in their chosen career paths. The aim of these skills is to help

individuals improve the quality of life and in essence, Home Economics is one such discipline that deals with the practical problems of life.

2.4 HISTORY OF HOME ECONOMICS IN BOTSWANA

From as early as the 1920s, education development in Botswana was implemented through a partnership between the colonial government and missionaries. The missionaries controlled the larger part of the curriculum and its implementation, while the colonial government was responsible for financial development and policy design. According to a Community Development Report (1979), missionary interest in education principally focused on basic reading, writing, praising the word of God and learning practical skills for subjects such as Handcraft and Agriculture. Their counterparts, the colonial government, had a vested interest in industrial education that would prepare male trainees for the world of work. This was a golden opportunity to provide cheap labour for the neighbouring South African and Rhodesian mines as well as farm industries. As such, this curriculum did not provide an ideal education for African women (Community Development Report, 1979).

SIAPAC (1990) describes the subject of Home Economics in Botswana, as having evolved over the years from being a stereotypical housewife subject to a more science-oriented subject. In the past, it was commonly known as Domestic Science and images of girls sewing and cooking was common in classrooms around the country in the early '70s. The focus was on sewing, cooking, laundry work and childcare. A few mission secondary schools such as Mater-Spei, St Joseph's and Moeding Senior offered Domestic Science as an extra curricular activity for girls which illustrates that the history of Home Economics in Botswana, as in other African countries, was linked with the work of the early missionaries (Kwaku, 1993). The wives of the missionaries preceded the home economists which meant that Domestic Science lessons were drawn from their particular cultures. Later, the early Home Economics programmes were based on models such as the British model which guided the curriculum in terms of development and practical work. Kwaku (1993) observed that these models were however foreign to Botswana and therefore not related to the needs and experiences of the students. One advantage of these models, used in schools for quite some time, was that they were skill-oriented, focussing on housekeeping and housewifery. However, Botswana's Home Economics programmes have gradually undergone changes in an attempt to tailor the content,

recognition and credibility of the programmes in the formal school curriculum to meet the needs of students in Botswana.

Mhango (1995) asserted that by 1965, the Dutch Reformed Church in Mochudi had already started running a two-year Home Economics craft school for girls. Non-Governmental Organisation such as Young Women Christian Association (YWCA), Botswana Council of Women (BCW) and Botswana Girl Guides (BGG) continued to offer Home Economics to female students and this proliferated countrywide. It was not until 1975 that Home Economics and Agriculture were formally accepted as curriculum subjects in junior and senior secondary schools. However, they were offered as optional subjects at both levels. Ten years after the introduction of practical subjects, Agriculture was accepted as a core subject at junior secondary level and Home Economics was paired with Design and Technology, which is also perceived as a 'masculine' subject. Unfortunately, very little effort was made to encourage male students to do Home Economics.

As a result of this history, many Home Economics teachers trained outside the country, specifically in Swaziland and overseas since programmes in these countries were more established and appropriate expertise was available. However, currently, two colleges of education and the University of Botswana offer Home Economics and produce secondary school teachers although it was not until 1994 that the Home Economics programmes were established. To date, the University of Botswana still does not offer programmes at Master's and PhD levels.

It is worth mentioning that the dearth of male teachers in Home Economics in Botswana continues to be a concern. This could be attributed to the persistent stereotypical perceptions about the discipline and lack of male professionals as role models to guide male students into a wide range of roles and occupational choices. Letsogile (1989) conducted a study on the enrolment of boys in Home Economics. The purpose of this study was to assess the attitudes and interest regarding Home Economics male students at selected secondary schools in Botswana. Findings of this study revealed that the majority of male students had a positive attitude towards enrolling in Home Economics. Furthermore, the male students commented on the usefulness of Home Economics to both male and female students. The point here is that

male students should be allowed and encouraged to take Home Economics as they will equally benefit from the discipline in their every day lives and those of their families.

The implications that this study has had on the Home Economics curriculum is that any barriers regarding male students' enrolment such as not allowing male students an opportunity to opt for Home Economics or gender stereotype perceptions, should be minimized if not eliminated.

2.4.1 Mission and vision of Home Economics in Botswana

The original aim of Home Economics in Botswana, to improve families and homes through acquisition of practical skills, is similar to that of other African countries and the international world, especially the United States of America where the roots of the discipline can be traced (Community Development Report, 1979). This can also be linked to the general aims of Home Economics as well as the mission statement adopted in African countries during introduction of the subject into the formal curricula as captured in the BGCSE syllabus (see Appendix A). The mission statement of Home Economics, as stated by the Home Economics Association for Africa (HEAA) is to: "Facilitate the process for individuals, families and communities to become responsible for improving their well being in relation to their economic, social cultural and physical environment" (Kwaku, 1993).

In Botswana as well as globally, and already indicated in Section 2.3, Home Economics programmes have been gradually undergoing changes in content, recognition and credibility in the formal curricula as a way of tailoring them to meet the needs of student and society at large. In the context of this present study, these changes are evident in the BGCSE Home Economics curriculum taught in Botswana schools today. The syllabus has been further revised to incorporate new knowledge and as such, reflects recent trends in education. For detailed discussions on this syllabus see Chapter 1 Section 1.5 as well as the preceding section.

2.4.2 Home Economics sub-components in the Botswana senior secondary curriculum

Since a broad-based curriculum at senior secondary level was advocated for by the RNPE, (1994) as already discussed in detail in Section 1.5, the BGCSE curricula was planned to cover wide content knowledge and practical skills. Home Economics should therefore, be

seen to contribute towards the broad-based education system through comprehensive subject matter as a subject in the curriculum.

In view of this the Home Economics syllabus builds on knowledge, understanding and skills established at junior secondary level. This is achieved by allowing those students who have studied Home Economics at junior level to continue with it and instead of doing a general course, are allowed to specialise by choosing from three sub-areas offered at senior level.

Home Economics has many subject-areas or domains, which are often offered at senior secondary or tertiary levels. These levels as Rees, Ezell and Firebaugh (2000) have observed, are levels where speciality is specific and advocated in order to support career exploration and preparation. Specifically, these include Home Management, Fashion and Fabrics; Childcare and Development just to mention a few.

For the purpose of the present study, three subject-areas or domains will be discussed, as they are the central focus in the BGCSE curriculum. These three domains, Home Management (HM), Food and Nutrition (FN) and Fashion and Fabrics (FF), have a rationale that shows the inter-relationships between them, both in theory and practice. It must, however, be noted that the subject areas or domains are not necessarily taught in every Home Economics programme, but found in most curricula. The Home Economics curriculum covers a wide range of subject matter through the varied domains such as with FN content food preparation and dietary guidelines with emphasis on the concept of food safety (see Appendix A).

In Botswana today, Home Economics strives to provide an ideal context for personal and social development. To achieve this, practical activities allow student involvement in task management and teamwork. Students are encouraged to reflect on their own work through evaluation exercises encompassed within their project assignments work place. Home Economics has played in helping students learn for everyday living has been complemented by an increased focus on the world of work.

A study conducted by Johnston and Armstrong (2000) whose purpose was to determine what influenced student choice of Home Economics as a major, revealed today's students appear to be looking beyond the classroom, selecting a field that will result in a lucrative career. This has implications of skills acquired as the central focus. Johnston and Armstrong (2000)

describe the concept of career choice as an important aspect that will take Home Economics beyond the practical calling discipline to base its scientific analysis, innovation and application efforts on the needs of real people here and now. The next section discusses the three sub-components in the Botswana senior secondary curriculum being: HM, FN and FF.

2.4.3 Home Management (HM)

HM is a discipline within Home Economics emphasising the interaction of the individual with the environment and how he/she effectively uses resources and utilises indigenous materials (MoE Food and Nutrition Teaching Syllabus, 2000). The HM programme strives to develop both theoretical and practical knowledge as well as skills in problem-solving situations. It also takes into account such factors as basic needs, lifestyles, health, environmental and any other emerging issues and their effects on the individual. For instance, practical application is carried out through the decision making-process that is employed in topics such as shopping facilities and money management.

2.4.4 Food & Nutrition (FN)

Research shows and describes this subject-area as the most significant domain or specialty of the Home Economics curriculum (Goldsmith, 1993). The current FN sub-area in Botswana and many countries abroad still incorporates subject matter that was originally taught in Home Economics classes. However, today, information is approached from a scientific perspective. For example, nutrition and health topics are illustrative of a scientific approach to Home Economics, which further complements areas of science currently taught in the school curriculum. It is important to embed topics on health as widely as possible across the curriculum because of some health emerging issues such as HIV/AIDS. FN is one of such domains, which has proved to be effective in achieving this aspect. Furthermore, evidence suggests that skills and knowledge acquired in FN are essential in improving health and general living conditions for both the individual and the community.

The FN programme provides quality-learning experiences, giving an appreciation of the role of FN in improving the health status of individuals. It also provides foundation skills by teaching students to be productive and adaptive in order to meet challenges of an ever-changing environment, assisting students in developing an awareness of Food Policies at national and international levels and ensuring that students acquire and develop knowledge and skills for effective organization and management of resources. Consumer awareness for

decision-making in contemporary FN issues, and technological capabilities in applying knowledge and skills systematically in food preparation for maximum nutritional benefit, also forms a basic part of the syllabus. In preparation for the world of work, managerial and entrepreneurial skills are included. In line with providing cultural and national identity and the inculcation of attitudes and values, the syllabus includes an appreciation of indigenous foods and traditional dishes.

The syllabus is assessed through both written and practical tests. It consists of a variety of components that include nutrition and health, food and technology and consumer education and food service business. It moves away from the domestic science concept of cooking and serving meals ensuring that practical applications are carried out through investigative and laboratory experiences.

2.4.5 Fashion & Fabrics (FF)

This Home Economics domain was originally intended to provide skills to allow families to clothe themselves in an economical manner as already discussed in Chapter 1 (Richards, 2000). In the context of the present study, the FF Assessment and Teaching curricula is designed to assess and teach positive achievement at all levels of ability. On completion of the two-year FF course, students should have acquired knowledge and skills on the importance of technology in the textile and clothing industry, environmental issues related to textiles and textile policies at national and international level (MoE FF Teaching Syllabus, 2000). The students are also expected to develop skills, basic techniques and constructing processes required in using a range of textile materials. It is also important that students are equipped with basic managerial and entrepreneurial skills in the textile business. Practical applications for this area are carried out through the design and production of textile items that are an important aspect in coursework assessment.

Together, these three sub-areas form the framework for the senior secondary curricula in Botswana. Indeed, it must be argued that the BGCSE Home Economics curriculum is exemplary of a programme, which has been redirected to reflect conditions in today's society and advancement in knowledge. For example, the content has been broadening and diversified to allow for inclusion of entrepreneurship and consumer education module in all the three sub-areas. Home Economics is seen as the ideal vehicle to ensure that entrepreneurship skills and

consumer education are acquired for use in future beyond the classroom (MoE Food and Nutrition Teaching Syllabus, 2000).

In line with the aim of preparing students for the world of work and leisure, the curricula develop an interest and enjoyment of the creative use of textiles developing skills required in selecting and using resources effectively and developing critical, analytical skills required in evaluating textiles activities and products for an identified context or need (MoE Fashion and fabrics Teaching Syllabus, 2000). The curricula also encourage individual work and teamwork in the production of textile products.

The three main assessment objectives of the syllabus are knowledge and understanding, handling information and solving problems and practical skills and their applications. As far as possible, the aims are reflected in these objectives. However, it has been noted that some of these objectives cannot be readily assessed; therefore, the focus of the study is to understand how teachers and moderators assess Home Economics coursework in senior secondary schools in Botswana.

2.5 SUMMARY

This chapter has attempted to provide detailed and comprehensive information about Home Economics as a discipline, its strengths and shortcomings as well as its relevance in society. The discussions have shown how the Home Economics body of knowledge continues to be relevant and meaningful for students today and in the future. Within the international and national context, there is resurgence in Home Economics, as it is increasingly recognised as relevant to meeting current and future societal needs. Significant changes in the learning and teaching focus of Home Economics have been identified showing emphasis on current and emerging learning approaches. These changes have been instrumental in allowing students to achieve what Home Economics as a school subject has set out to achieve. Secondly, the changes recognise Home Economics as a field of study that provides relevant and meaningful contexts for student learning.

The discussion also touched on the fact that despite the barriers of perceptions, gender stereotypes and lack of qualification pathways in the senior secondary school, Home

Economics continues to provide varied and meaningful courses of study for students, which they enjoy, and in which they are able to specialise. There is evidence that Home Economics is responding and transforming in response to society's changing needs without losing its focus on the well-being of families. The next chapter discusses assessment of Home Economics as a practical subject.

CHAPTER 3

ASSESSMENT OF HOME ECONOMICS

3.1 INTRODUCTION

It is important to explore the factors which influence the credibility of assessment, especially that of coursework where teacher judgement plays a key role. It is worth investigating the consistency of these judgements and the extent to which they can be achieved and trusted by the public; and furthermore, how these judgements contribute towards high quality assessment in the public examination structure of secondary schools in Botswana.

This chapter is contextualised by reviewing literature, coursework of practical subjects with special emphasis on Home Economics, and more specifically how quality is assured during the assessment of such a practical subject. An overview of related issues will be discussed in the context of international (as well as Botswana-specific) findings as described in the literature. The review of literature will be organised under the following sub-headings: Section 3.1 introduces the chapter. An overview of assessment is provided in Section 3.2. Section 3.3 describes forms of assessment with emphasis on formative and summative assessment. Section 3.4 examines quality assurance in assessment. Assessment of Home Economics as a practical subject is provided in 3.5. A discussion of the conceptual framework that guides and underpins this study, based on the systems theory is elaborated on in section 3.6. Finally, Section 3.7 provides a summary of the main discussion points included in this chapter.

The concept of assessment has long been established in the research literature and has been in existence for as long as teaching and learning (Berwyn, Robin & Sue, 2001; Gipps, 1994; Leathwood, 2005). In its simplest form, assessment refers to the collection and synthesis of information to assist the teacher in making appropriate decisions (Nitko, 1996). Assessment serves many purposes and is constructed in different forms such as being diagnostic, formative or summative, and these are discussed in detail in Section 3.3. Furthermore, at policy level, assessment can be used for a variety of purposes such as student placement, curriculum modelling, monitoring and evaluation (Nitko, 1996).

Assessment serves many functions and it is an important concept in education disciplines. Educators are charged with the responsibility of assessing students on a daily basis, so it is important that we fully understand how to assess if we are to “do it better” (Gipps, 1994, p. 10). Generally, educators spend a considerable time on the assessment process with the aim of integrating it into teaching, so that in turn it contributes to the effectiveness of education (Nitko, 1996). Within the classroom setting, assessment may take the form of observation to assist the educator to plan her/his lesson with a view to improving the instructional methods.

In their study on the process teachers use to arrive at judgment, with emphasis on performance-based assessment, Wyatt-Smith and Castleton (2005) found indications that even though the marking guide followed a uniform pattern, there was significant differences between teachers which ultimately reveals that little is known on how teachers make their judgment. Likewise, in some studies, there is clearly a difference between external assessment and teachers’ judgement as they make decisions about student performance in the various tasks (Clayton, Booth & Woolf, 2001; Radnor, 1993). A full understanding of assessment can undoubtedly lead to changes in teachers’ attitude and practices. The literature reviewed shows that assessment should be credible so that it displays trustworthiness (Baird et al., 2004; Baume, Yorke & Coffey, 2004; Greatorix et al., 2002). A major shortcoming about many of these studies is that they fail to focus on coursework, especially in the form of projects and practical examinations. The studies also fail to investigate coursework assessment even though we see many education systems incorporating it for several reasons as identified by Nitko (1996) and Airasian (1996). One of these reasons is that in continuous assessment, validity can be enhanced due to use of a variety of methods used to gather evidence about student performance and it provides useful feedback to both the teacher and the student so that credibility is assured.

The term ‘assessment’ is a familiar concept in the context of education. As previously stated in this chapter, assessment is concerned with collecting and making decisions about student achievement on a continuous basis. Assessment is a crucial process and should be integrated into teaching and learning, particularly if it is to serve the intended purposes (Gipps, 1994). Educational professionals use various terms to describe these various purposes, which for this study will be discussed in detail later in this chapter. Assessment, as illustrated in the

literature, has a primary role to play in the curricula of many education systems, in providing meaningful feedback to the teacher and eventually improving teaching and learning.

3.2 FORMS AND USES OF ASSESSMENT

This section discusses the forms of assessment that have been identified and made mention of in Section 3.1 as relevant for this study. Firstly, formative assessment is ongoing and supports teaching and learning. It has diagnostic value as it allows the teacher to make amendments so as to improve learning in light of what students have learned (Nitko, 1996). Secondly, summative assessment takes place at the end of the unit or course and it ascertains what has been learned. Diagnostic assessment is done prior to teaching as a way of determining what students already know, and evaluative assessment is concerned with the effectiveness of teaching and learning in schools (Black & Willam, 1998). It can be seen from the above descriptions that educational assessment is conducted for a variety of reasons and the nature of the assessment often shows the purpose for which it serves.

Several researchers have identified the key role of assessment as the enhancement of learning, as it allows students and teachers to identify what has taken place (Gipps, 1994; Harlan, 2003; Black & Willam, 1998). Furthermore, research evidence also shows that assessment can affect learning, both positively and negatively as identified by Good (1988). In essence, it implies that in order for assessment to serve the purpose which it is intended; therefore the assessment system should consider this if it is to be meaningful and trustworthy.

Research evidence shows formative and summative assessment to be quite compatible Black and Willam, (1998) in that they can easily be integrated as in the case of school-based assessment. Again, these two forms of assessment have a diagnostic value of ascertaining what learning has taken place as the aim of improving teaching and learning. However, it is important that teachers have a full understanding of assessment before they can actually assess. Therefore, in order to have an understanding of assessment it is important to discuss in detail why the assessment is taking place. These views are supported by Singh's study (2004), which explored teachers' perceptions of formative and summative purposes. This study revealed confusion in teacher views of the distinction between the two forms of assessment,

with some teachers not being able to distinguish between the two forms. Teachers appeared to be more familiar with summative assessment than formative assessment.

In a similar study conducted in Hong Kong by Yung (2006), evidence shows that teachers need to be seen as playing an important role not only in relation to formative but also in all forms of summative assessment as well as for both internal and external uses. He explains that the duality of these assessment concepts provides all bases for discussions as there is evidence of attempts being made in integrating the two as part of what he calls ‘high stakes’ assessment.

Evidence shows that teachers lack clarity on the purposes of assessment and therefore there is need for a full understanding of these two forms of assessment as teachers are engaged in the assessment process on a continuous basis (Gipps, 1994). Additionally, national curricula tend to draw formative and summative together (Black & Willam, 1998) with the BGCSE curricula being such an example.

3.2.1 Formative Assessment

Formative assessment also known as ‘assessment for learning’ has been defined as “the process of seeking and interpreting evidence for use by students and teachers to decide where the students are in their learning, where they need to go and how best to get there” (Hopkins, 2004, p.178). Other principal researchers such as Harlan (2003) and Wolf (1995) describe formative assessment as “An assessment carried out at regular intervals in the course of teaching and is intended to support and improve teaching and learning. It is an ongoing diagnostic tool that enables the teacher to adjust their teaching plans in the light of what students have, and have not learned” (Institute of Educational Assessors Code of Practice, 2000a, p.1).

From the definitions, it is clear that formative assessment plays a key role in informing teaching and learning. In addition, it raises standards of achievement, especially that of low achievers because of their belief that they can improve their learning effort rather than their innate abilities. A review report of the Task Group on Assessment and Testing (1988) in the United Kingdom supported formative assessment as the principal means of raising standards and recommended that formative assessment be made central to National Assessment policies.

A number of researchers (Black and Willam, 1998; James & Harlen 1997) argue against formative assessment as they have observed that it is not well understood by teachers and as a result, tends to be weak in practice; therefore they suggest that summative assessment be employed.

3.2.2 Summative Assessment

Summative assessment is also known as ‘assessment of learning’ as opposed to assessment for learning as is the case in formative assessment. Harlan (2003) describes summative assessment as “an assessment with a particular purpose of providing a record of a pupil’s overall achievement in a specific area of learning at a certain period”. She goes on to observe that “It is usually formal and rigorous and conducted under controlled conditions, and it is a ‘high stakes’ activity” (p.11). This, therefore, clearly shows that the main purpose of summative assessment is to report on learning achieved at a specific time such as at end of a summative programme. Research evidence shows that information about student achievement may be used in a variety of ways (ASF, 2005), and include the ‘internal’ and the ‘external’ uses. Internal uses are, for example, grading in order to have class and school records, as well as reporting to stakeholders. External uses will include selection, accountability and certification purposes which is often regarded as high stakes (ASF, 2005).

Views vary regarding the effects of summative assessment on teachers and students. Some researchers argue that “emphasis on summative assessment leads to teaching to the test, this therefore narrowing the curriculum” (Institute of Educational Assessors Code of Practice 2007b, p. 1). However, Biggs (1998) has surmised that summative assessment may be of little use in improving teaching and learning, hence, educational systems use a formative form that contributes to final certification. An example will be with regard to situations where the mark or grade awarded to students does not indicate strengths and weaknesses. Such observations may seem to suggest that summative assessment is viewed and criticised in literature by some researchers as making little contribution to improving teaching and learning processes (Biggs, 1998). It must, however, also be noted that summative assessment can be used formatively. This suggests that the tasks set would be reflective of what the students know and can do, as in the case of Home Economics as a practical subject.

To sum up, there is a relationship between formative and summative assessments. James and Harlen (1997) point out that the relationships are in terms of purpose and timing. They argue

that this is “evident in the claim that some purposes of assessment could be served by combining assessment originally made for different purposes” (1997, p.2). Additionally, the teacher, especially in summative assessment for certification purposes involving coursework, does both formative and summative assessment. Finally, it is worth noting that formative purposes can be supplemented by summative purposes, which is viewed as encouraging to teachers. However, Black and Willam (1998) argue that these different forms of assessment complement one another. This could mean that the two forms of assessment should have equal status and both be well understood by teachers who should be able to use them confidently.

3.2.3 School-based assessment (SBA) versus national assessment

The literature shows that student work can be assessed internally, externally or sometimes by a combination of the two (Gipps, 1994; Biggs, 1998). Several concepts exist that describe the various forms of assessment such as continuous assessment, teacher assessment, coursework assessment and school-based assessment (SBA). School-based assessment is used synonymously with coursework, continuous and internal assessment.

These concepts in other contexts may have different meanings. For the purpose of this study, internal assessment will be defined as assessment where tasks are set and marked by teachers against criteria provided by the examining body and subjected to external moderation. External assessment, in contrast, is a form of independent assessment in which question paper tasks are set by the examining body, then taken under specific conditions and marked by the examining body (QCA, 2006).

School-based assessment can serve both formative and summative processes. In instances like this one, the assessment is managed at school level but externally controlled by the awarding body as demonstrated by coursework, which is continuous in nature with practical subjects such as Home Economics and Design and Technology in the case of the Botswana education system. In school-based assessment, teachers play a significant role and are regarded as internal assessors; however, they may also be involved in external assessment (ASF, 2005). For external purposes of assessment, awarding bodies are responsible for devising marking guidelines as well as marking, while centres only administer the assessment in accordance with the guidelines. This involves nationally set and marked examinations and requires a high degree of preparation and organization.

Coursework assessment is not a new concept, according to Kennedy, Chan, Yu and Fok (2006). It has been implemented in many subjects such as Chemistry, Design and Technology and Home Economics since 1978. It uses various modes of assessment such as practical tests, projects, portfolios as well as investigations in order to allow assessment of different skills, knowledge and attitudes with more emphasis on continuous assessment.

Botswana's education system at senior secondary level, like others on the globe, has adopted an international trend whereby school-based assessment is a combination of both internal and external assessment. This type of assessment could be described as formative as it incorporates features of continuous summative assessment. The use of summative assessment by teachers for external purposes is now being implemented in a number of assessment systems (Kennedy et al., 2006). Several reasons are given for more emphasis on school-based assessment. It is generally expected that it will build a broader accountability of achievement and create less pressure on teachers. Conversely, there are arguments against the use of school-based type of assessment. The ASF Working Paper 2 (2005) revealed evidence from research that summative assessment by teachers could be unreliable, biased and demanding (ASF Working Paper 2, 2005).

This trend is seen to be more challenging and places more responsibilities on teachers, as they now have to play a dual role of teacher and assessor (Cheung 2005; Polish 2006). A number of researchers (Black & Willam, 1998; Cheung and Yip, 2005) have provided evidence to support the challenges that school-based assessment creates. Poliah (2006) posits that coursework assessment is a tool for better learning and an integral part of the teaching and learning process where equal importance is attached to diagnostic, formative as well as to summative assessments.

This description of SBA is reflective of the growing perception about the benefits of school-based assessment in education. Alternatively, it is important to note the challenges it tends to bring to both teachers and students. Black and Willam (1998) affirm the complexity of SBA in terms of lack of trust of teacher judgement, which is related to validity and reliability.

There has been some criticism directed at the inclusion of coursework assessment in public examinations. Arguments against coursework include teacher workload, teachers' lack of

understanding of coursework assessment as well as the pressures it brings to students in terms of assessment activities. Abedi, Njabili and Mgaya's (2004) study describe school-based assessment for certification purposes as creating challenges for teachers.

Consistent with these arguments are the findings of Cheung and Yip recent study (2005), which investigated teacher's perceptions about coursework in Biology in Hong Kong. The findings of this study revealed that teachers need to be offered help on coursework assessment by disentangling the two types of assessment so that they can use assessment appropriately to serve the purpose it is intended for. This in particular, suggests teachers' lack of understanding of this type of assessment, which causes discontent especially amongst novice teachers (Cheung & Yip, 2005). Furthermore, teachers expressed concern about authorities imposing the workload on them. Similarly, another study by Kennedy et al., (2006), whose aim was to get teachers' views on coursework confirms this. They found that coursework was time consuming, brought additional workload with emphasis on lack of implementation skills and support. However, some researchers (Black and Willam, 1998; Kennedy et al., 2003; QCA, 2005) have identified several benefits of including coursework in the public examinations of many assessments systems. These researchers argue that it enhances learning and improves the quality of teaching and learning and the 'back wash' effect from external summative assessment.

Another often-used concept in educational assessment is teacher assessment, which is a form of school-based assessment. Teacher assessment consists of professional judgement that assess practical work against a criteria set by the awarding body. Teachers in such cases, play a key role in collecting and interpreting evidence in terms of performance standards. However, Clarke and Gipps (2000) are concerned about the fact that evidence shows that little is known about the actual process of assessment, and how teachers especially make judgements. This in essence, implies that more needs to be done in terms of research as a way of enhancing understanding and assisting examiners to broaden their assessment strategies.

Gipps, (1994), Harlen, (1994) and Hall and Harding, (2002b) affirm the complexity of teacher judgements in internal assessment, as it is described as a major issue in achieving and maintaining consistency. Consistency in this context is regarded as the agreement amongst the group of markers. In assessment, therefore, the question that is raised, as Gipps (1994) points out, is whether teachers are able to use the criteria consistently with other teachers or some

group of experts. This implies that teacher assessment results are somehow not accorded the same status as other forms of assessment. McGraw (1996), investigating consistency of teachers marking in the UK, found that teachers at different levels interpret the outcome statement in different ways. Consistency can be ensured if teachers fully understand the constructs they are assessing.

In summary, the forms of assessment discussed earlier in Section 3.3 can be diagrammatically presented as in Figure 3.1:

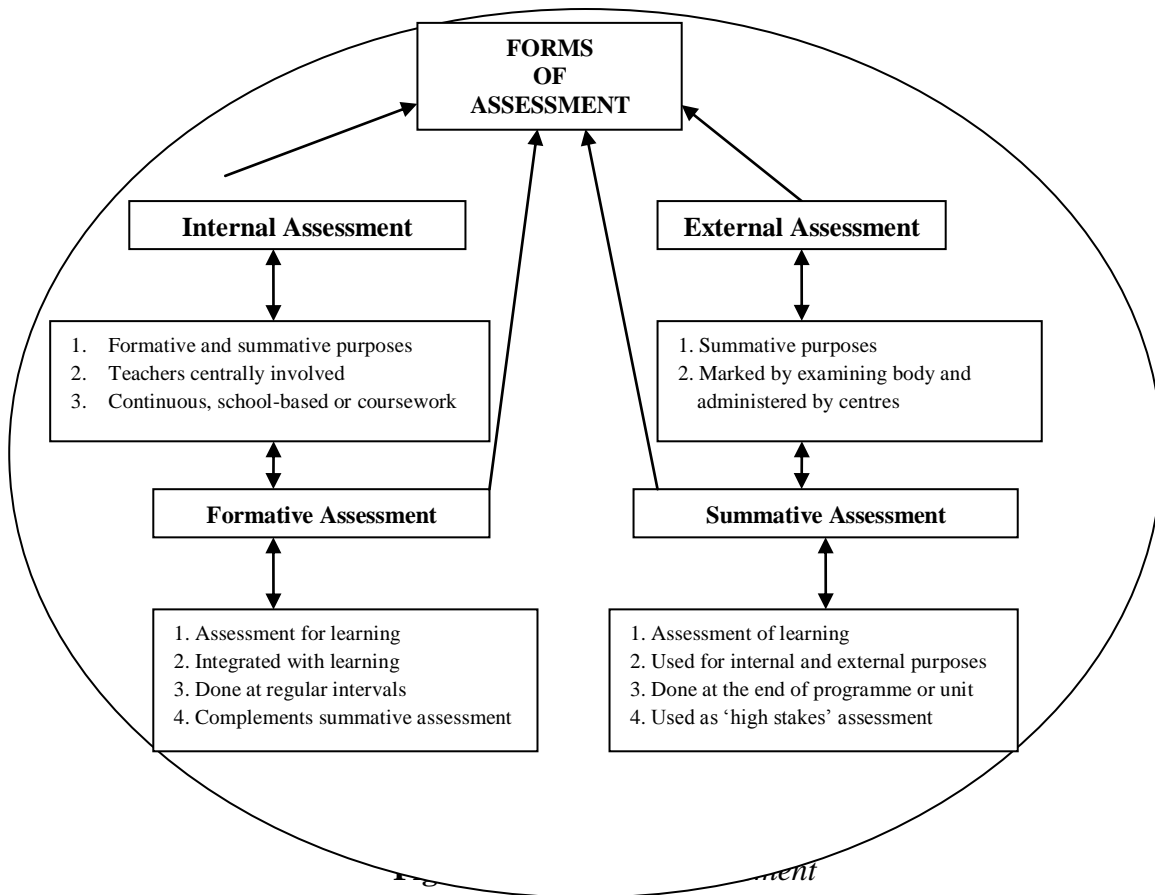


Figure 3.1: *Forms of Assessment*

3.4 QUALITY ASSURANCE IN ASSESSMENT

It is important that quality assurance practices in education be regarded as an essential tool in assessment and also integral to teaching and learning. Quality assurance raises standards and thus gives the public confidence in the qualifications awarded. Incorporating quality assurance procedures in assessment especially in national examinations, where coursework contributes to the final grade, plays a major role with the aim of ensuring that standards in assessment are known and met (Harlen, 1994).

Quality assurance has been identified as beneficial in assessment for several reasons. Firstly, it is beneficial in assuring validity, which is concerned with how well the results of an examination reflect the skills, knowledge or quality it was intended to assess (Harlen, 1994). Validity is an important attribute in assessment since the usefulness of an assessment is directly related to its validity in the sense that it is priority for ensuring quality of that assessment, so every effort has to be made to increase validity through provision of credible information.

Quality assurance is also beneficial in ensuring reliability. Reliability is defined as the “extent to which a similar result would be obtained if the assessment were to be repeated” (Harlen, 1994, p.12) and is an important concept where students perform the same task for internal assessment purposes, such as in the BGCSE Home Economics assessment. This therefore means that there has to be comparability of the judgements made by the different examiners as a way to ensure consistency and fairness of the assessment. Several methods have been identified in the literature to enhance reliability of the assessment especially that of coursework to include extensive guidance given to the examiners, professional development and explicit criteria and standards upon which to make judgement (Harlen, 1994). Furthermore, the moderation process especially, that of coursework, which will be discussed later in Section 3.4.2, is used as an attempt to enhance reliability.

Finally, quality assurance is beneficial in developing consistency of standards for the qualification being offered, ensuring that quality and accurate standards are applied to all those being assessed (SQA, 2000). This is very important in assessment since certificates will be awarded only to deserving students on condition that they satisfy standards or the

requirements of the qualification. Coursework assessment that this study will focus on is nationally set and marked. It therefore requires that quality control procedures play a significant role so that overall quality is assured, as it serves a very important summative purpose as previously discussed.

Coursework is assessed both internally and externally, which is reflective of quality assurance procedures. In subjects like Home Economics where the assessment is practical in nature, internally assessed work equally provides evidence of student achievement. However, in order to enhance objectivity and consistency of the assessment, quality assurance procedures have to be in place and be effective (Australia Training Authority, 2003).

Internal quality assurance procedures for coursework assessment are essential in order to check if marking adheres to standards set. Here, the exercise is the responsibility of centres, especially the responsibility of subject experts, to assure that the assessment practices are consistent across teachers. Expertise in assessment, subject content, subjectivity, and dedication are essential elements when internal assessment takes place (SAQA, 2003). However, these elements may not be fully ensured by some examining bodies. It is advisable that the quality assurance procedures are functional, understood by all assessors as well as adequate guidance provided in the form of documentation and regular training. SAQA (2003) suggests that:

An outcome of successful internal moderation is that centres should avoid a scenario where an inexperienced member of staff is responsible for devising and/or making assessment decisions without the assessment process being subject to wider scrutiny, expertise and endorsement within the centre.

Thus, to ensure validity and reliability, assessment decisions are made through double marking, external moderation, clarity of the marking criteria, and finally, standardisation. Standardisation is seen as a useful exercise in improving examiners' reliability through the discussion and shared understanding of the marking criteria.

External quality assurance procedures focus on reliability and validity of the assessment. External moderation is mandatory to internal assessment, and where significant inconsistencies are identified in internal assessment, re-marking or adjustment of scores

should be done (SAQA, 2003). Here, the examining body, through the guidelines, procedures and practices in place, closely monitors the moderation.

From the above discussion, there is an indication that quality assurance procedures are concerned with transparency and accountability. Moderators have to be in a position to account for the decisions made about student achievement; therefore, they should be consistent throughout the assessment exercise if their decisions are to be trusted. Quality assurance procedures such as quality checks should be evident right from the paper-setting stage of the examinations all the way through to the grading stage.

Finally, as a way of ensuring that the quality assurance procedures and practices are indeed working, it is necessary to have regular reviews. Ideally, assessors should produce moderation reports for subject officers of the examining body to scrutinize as checks on the quality of the whole assessment exercise.

3.2.4.1 Moderation procedures in coursework assessment

It is critical that schools and examining bodies ensure that internal assessment is accomplished in a consistent manner. Moderation is one of such procedures commonly used as a quality assurance measure especially during internal moderation (Radnor, 1993). Moderation is concerned with the quality of teacher assessment and their understanding and application of standards during marking which thus underpins a high quality assessment and assures the quality of the results.

Therefore, for the purposes of this study, moderation is a form of quality assurance “for delivering comparability in evidence-based judgements of students’ achievement” (Maxwell, 2006a p. 2). Comparability emphasises the fact that the marks or scores have to be comparable amongst the assessors and that the level of achievement must be equivalent in terms of the standard they represent in the assessment regime. According to Maxwell (2007b), moderation requires consistency in the application of common standards which means that establishing, sharing and ensuring that all assessors have a full understanding of standards is core to moderation. There is a growing body of evidence supporting moderation of assessment with focus on internal assessment (Good, 1988; Yu, 2006; Clayton et al., 2001; AQA, 2005). Consistent with this evidence, are the findings of a study by Good (1988), which examined the extent to which teachers and moderators agree in their assessment of the candidate’s

achievement in French examinations. The study revealed that assessors are unlikely to apply similar standards in SBA and therefore moderation procedures become necessary for checking and adjusting marks.

In their United Kingdom study, Clarke and Gipps (2000) whose purpose was to monitor the consistency of teachers' assessment and how they make judgements, revealed that all teachers found moderation meetings, whole department or school, or small groups very useful and effective. This study further found that teachers tend to be more lenient than moderators; however, errors stem equally from both teachers and moderators, a finding reiterated in Radnor's (1994) study.

The findings of these studies concur with views of several researchers such as Clarke and Gipps ((2000) who are concerned about consistency of teacher judgement. Research evidence continues to show that even though examiners are trained and are provided with marking guidelines, interpretations and levels of leniency and severity are common (Good, 1988; Radnor, 1993); therefore, moderation is vital in ensuring that marks awarded align with the set standards, although there is a notion that it is almost impossible to achieve consistency during judgement.

Various forms of moderation are identified in the literature such as internal or external. Internal moderation is the responsibility of schools, while external moderation is the responsibility of the examining body. However, researchers continue to identify various other modes or methods of moderation which Gipps (1994) and Good (1988) identify as statistical, moderation by inspection, panel review, group moderation and lastly, consensus moderation. Statistical moderation is described as scaling of marks but preserving the rank order of candidates within that group, which Good (1988) argues, overcomes differences in terms of leniency and severity in marks. Moderation by inspection occurs when samples of student's projects are marked by a group of examiners who, through discussion, reach a consensus about the grade to be awarded. However, these modes of moderation have the common aim of checking consistency in teacher judgements, which Price (2005) describes as uncovering the application of differing standards especially in internal assessment.

Many assessment systems tend to use a dual method of moderation, such as statistical and moderation by inspection, which tends to be fairer to students. However, these methods of

moderation will differ depending on the extent to which the assessment judgements are exposed to public scrutiny. QCA (2005) contends that consensus, consortium and group moderation share a common philosophy but not necessarily the same form and purpose. Of these examples of moderation, consensus moderation is regarded as the most valuable because through the discussion of criteria for assessment, decisions are made and therefore, are regarded by QCA (2005) as a golden era of internal assessment as it promotes professional development and achieves the desired level of standards.

Moderation broadly may be used for accountability or improvement purposes. On the one hand, moderation for accountability, as Maxwell (2007b) points out, focuses on quality control and monitoring to ensure the quality of assessment. This type of assessment is useful for certification or for reporting to the public. In contrast, moderation for improvement is beneficial in that it develops teacher assessment skills especially in making consistent judgements. Moderation for improvement is used by many assessment systems for support of professional development. However, some systems tend to use both moderation for accountability and improvement, as in the assessment system adopted for this study.

In this study, moderation by inspection and statistical moderation will be discussed in detail since they tend to be used together and are applicable to this study. Gipps (1994) sees it as appropriate to refer to consensus or consortium as group moderation since a group of assessors come together to compare their standards of marking using samples of student work. This, she says, solely relies on the teacher's professional judgement, and it is concerned with quality assurance and the professional development of the examiner.

These views are supported by research review evidence on teachers' summative assessment in the UK (Hall & Harding 2002b). The review findings are that moderation through professional collaboration is of benefit to teaching and learning as well as assessment and several studies from this review confirm this (Good, 1988; Hall & Harding, 2002b; Radnor, 1993). A similar systematic review conducted by EPPI-Centre (2003) in Australia's secondary schools assessment system on the evidence of reliability and validity of assessment by teachers also found positive results.

Group moderation, as it shall be regarded in this study, allows examiners to mark a sample of students' work and finally compare marks through the standardisation exercise in order to

arrive at a shared understanding of criteria. Standardisation in the moderation procedure is crucial and Pitman, O'Brien and McCollow (1999) describe it as the hallmark of many assessment regimes. The key point here is that all aspects of standardisation are important and they contribute positively especially to marking criteria, and co-ordination meetings. Greatorex, Baird and Bell (2002) in their study that investigated standardisation procedures in GCSE marking of History coursework, found that the majority of assessors considered each standardisation procedure very useful in their marking.

Gipps (1994) emphasises that in-group moderation the focus is not only on consistency of standards in marking, but also ensures that assessors interpret the criteria in the same way. This method of moderation is useful and is described by Good (1988) as the key element in internal assessment as it provides training of assessors, checks consistency of marks as well as enhances professional teacher judgements. Furthermore, it is essentially concerned with quality assurance (Clarke & Gipps, 2000). Nonetheless, it can be time consuming and costly.

Statistical moderation is seen by the Institute of Assessors (2005) as a procedure, which involves comparing the marks awarded for a teacher-assessed component of a specification with the remaining marks for the components or units. It is a useful procedure when teachers' marks are not aligned to the agreed standard which Good (1988) describes as useful in overcoming differences in terms of leniency and severity in marking.

Research evidence by (Clarke and Gipps, 2000) shows that moderation does not, however, warrant consistency in assessment nor achievement of identical standards, instead it attempts to monitor and bring inconsistencies to an acceptable level. Statistical moderation, as Good (1988) points out, is appropriate to use in cases when there is an overlap of assessment objectives between internally and externally assessed components, and a high correlation between the components. Again, this procedure has proven beneficial when students have no end product submitted; therefore, only the process is assessed. Statistical moderation is done per school/centre and per subject during adjustment of examination marks. However, some researchers argue against use of statistical moderation especially when used as the sole method, since it is restrictive and not understood by some examiners.

3.5 ASSESSMENT OF HOME ECONOMICS AS A PRACTICAL SUBJECT

The continuous assessment regime for BGCSE is based on the IGCSE coursework approach. A number of assessment models are used in order to monitor and determine student progress and achievement in Home Economics. Two types of formal assessments useful in Home Economics can be distinguished as internal and external assessment. Both types furnish important information about student progress. Internal assessment is defined as “assessment where tasks are set and marked against criteria provided by the examining body and subject to external moderation; while external assessment is a form of independent assessment in which question papers and tasks are set by the examining body, then taken under specific conditions and marked by the examining body” (QCA, 2006, p. 6).

Internal or school-based assessment is continuous and formative in nature, since it has a diagnostic value in the sense that it informs the teacher about the teaching and learning process, as well as determines student progress. Internal assessment includes coursework, an integral part of assessment contributing to the final grade, and consists of projects, investigations and practical tests.

Coursework, for the purpose of this study, will be taken as any type of assessment activity undertaken by candidates in accordance with specifications during their course which contributes to the final grade awarded for a qualification (QCA, 2006). Coursework, as part of the formal assessment scheme is often compulsory in practically oriented subjects like Home Economics.

Recent studies conducted by Ipsos MORI (Market and Opinion Research International) in the UK in (2006) and Utlwang and Mugabe in Botswana (2004), whose aim was to get views about GCSE/BGCSE coursework respectively, revealed that teachers are positive about coursework acknowledging that it benefits their students. The studies further found out that even though coursework is beneficial, it has challenges for teachers such as being time consuming, students having difficulties meeting deadlines and finally, it tends to ignore creativity since credit is given to the quality of the end product.

3.5.1 BGCSE Home Economics Coursework Procedures

The BGCSE, like many public examinations such as the GCSE, includes a school-based component for practically oriented subjects such as Home Economics and Design & Technology. Examining bodies prepare marking guidelines as criteria on which to base the marking. Coursework assessment is used to assess objectives that cannot be assessed in formal examinations. Assessing problem-solving objectives, knowledge application and experiments require designing a relevant task in the form of projects or investigation. In Home Economics for example, students are to demonstrate what they know and can do during practical examinations and project work.

The BGCSE is a two-year programme during which ‘high stakes’ assessment occurs to determine tertiary eligibility. It is a stage where formal moderation procedures on teacher judgement are mandated as an attempt to ensure quality assessment procedures. Internal moderation is done by the teachers while external moderation is done by staff appointed by the examining body (BEC). Moderation in this context includes assessor training and giving feedback to assessors and standardisation. This procedure is a means of developing teacher understanding of learning goals and increasing dependability of the outcome.

Group moderation, which takes place in centres, is mandatory to all Home Economics teachers as a way of training them to avoid discriminating practices. This is also an attempt to ensure that teachers fully understand the constructs they are to assess. All Home Economics teachers in senior secondary schools are required to mark BGCSE coursework for their completing classes. At this stage, samples of student work are discussed by the group of teachers against the assessment criteria, marking scheme and all supporting guidelines from the examining body. Teachers then mark individually or in pairs; however, double marking is not always possible due to time pressure and deadlines set for teachers. Comparisons of results follows, that is, differences in marks and where inconsistencies are significant, and adjustments are made to align with standards.

During external moderation, centre marks are given to the moderator on arrival who then samples 30% of the candidature. The 30% sample is drawn from the lowest, medium and highest. Marks should fall along a range of + or – 3. If there are significant variations in marks, the moderators often remark (FN Assessment syllabus, 2001). If the mark disparities are within the same area, the whole centres’ marks are moderated. The moderator then is

expected to write an accurate report detailing what transpired at that centre. If there are vast differences, the teachers are expected to remark and hand over their mark sheets to the moderators, who then re-sample the mark sheets to check if corrections were made to the moderator guidelines. Finally, the Botswana Examination Council (BEC), checks the consistency of marks and whether the set standards have indeed been achieved. In cases where excessive leniency or severity in marking is detected, the marks are scaled down by statistical moderation.

Quality control procedures that exist for BGCSE certification are at curriculum development and assessment level. The curriculum is designed locally, but in such a way that it corresponds to other internationally well-established and acceptable ones such as the University of Cambridge Local Examination Syndicate (UCLES) with content that is relevant to the world of work and real-life situations. Inclusion of coursework, which is set and marked by subject teachers, is seen as one way of attaining quality. Quality control for the curriculum is accomplished by ensuring that teachers are trained and certified prior to setting or marking coursework.

Quality control for assessment procedures is achieved through internally and externally assessing the students. For external purposes, detailed specifications are prepared for setting questions and marking schemes. Before marking commences, all examiners attend standardisation meetings at which the proposed marking scheme is often trialled. This ensures that the examiners have a common understanding of the requirements of the marking scheme and can apply it reliably and consistently. For internal assessment, in addition to the requirements that teachers be trained and certified, there is a further quality control mechanism whereby samples of marked coursework are evaluated by the examining body for monitoring by experienced examiners.

3.5.2 Achieving and maintaining standards

In an attempt to establish how high quality assessment is achieved and maintained in the BGCSE Home Economics coursework marking, this study focused on standards (national and international), quality and excellence and quality assurance, concepts which are closely related and components of an educational assessment exercise. Pring (2000) defines standards as criteria whereby one assesses or evaluates the quality of a particular activity or process. Wiggins (1991) maintains that standards imply a passion for excellence and that quality is

achieved through setting and applying standards. In this research, the standards in Home Economics coursework are used to verify the marking and ensure quality. Standards set and applied during assessment of Home Economics coursework serve as examples of excellence, which means that if the assessment is accurate and credible, it will demonstrate quality as it meets standards.

Wiggins (1991) emphasises that excellence is not a mere uniform correctness but the ability to unite personal style with mastery of a subject in a product or performance of one's design. This implies the importance of correctly using the standard marking criteria during assessment, so that students are judged against the same standards of performance. In order to make consistent judgement of student work, clarity of assessment standards is important. Assessment standards need to be set during the initial stages with the principal aim of achieving marking consistency and then maintaining these standards.

Marking consistency is an important aspect in coursework assessment since multiple markers are involved. Research evidence shows that different markers award widely varying marks to the same work even though efforts are made to share subjectivity (Price, 2005; Good, 1988). Hence, the need to use standards as a guideline, since standards in relation to student performance is a key part of the assessment process. Furthermore, as Price (2005) has noted, consistent, fair and reliable marking is important but it seems difficult to achieve. Efforts have to be made in reaching a common understanding of assessment standards, especially at local level, to ensure learning benefits to students. This procedure involves development of assessment criteria, benchmarks and programme specification by the examining bodies. It is essential that assessment systems, from the start, establish clear and rigorous standards that specify what is expected of students in terms of what they should know and be able to do.

One way of setting these standards is by providing guidelines for assessors to follow during marking, which is an illustration of nationally set standards. Furthermore, to ascertain consistency in standards, the work undergoes checking, grading and grade review in an attempt to maintain the set standards. Standard setting and maintaining the set standards in assessment is key as it assures that the assessment is authentic.

Another important aspect about standards is sharing and applying the set or established standards with all those involved in assessment as well as students. Price (2005) examined

how staff ‘come to know’ about assessment standards. He found that setting standards was undertaken as an individual activity, instead of a joint activity through consultation. Therefore, staff saw themselves not as ‘standard setters’ but as coordinators of standard setting which implies that standards may have been presented in a non-negotiable way to markers which resulted in lack of ownership and understanding. Setting standards through a joint activity and consultation may contribute towards achieving standards and consistency of marks.

Educational professionals’ concern about variations in assessment standards has an effect on the quality and recognition of a qualification like BGCSE or GCSE which aims at improving the quality of education. Recent studies conducted by Holroyd (2005), Wyatt-Smith and Castleton (2005) and Hall and Harding (1999a) explored the professionalism of examiners and examined how teachers make judgements and the process they rely on when making judgements with the intention of understanding the variations that do occur in assessment standards. Findings from these studies collectively show that even though marking standards were made clear to markers, some assessors still marked outside the agreed standard. Mostly, there were significant variations between teachers even though the marking guide followed a uniform pattern.

Hall and Harding (1999a) support these views as one teacher in their study was quoted as saying: “You can be consistent with yourself but that doesn’t mean you are consistent with the marker next door”. Furthermore, in practice, as Good (1988) has observed, even trained markers, marking to a well-defined mark scheme with the interpretations agreed beforehand at a standardisation meeting, do not reach total agreement. Evidence shows that the variations exist amongst all examiners as revealed in the Ecclestone (2001) study. Variations are equally intense between ‘experts’ and ‘competent,’ ‘experienced’ and the ‘novices’, suggesting the complexity of achieving standards, therefore showing the need of some form of mechanisms to ensure establishment of common standards.

A number of reasons have been attributed to these variations in standards. Some researchers suggest assessors may not be reading the guidelines provided, and are marking unwillingly or under time pressure. However, Price (2005) contends that the variations occur where criterion-referenced assessment is used, and again he points out that marking practices adopted may further complicate the consistent application of assessment standards. Yorke et

al., (2000) studied the variations of (in) two institutions on assessment practices and approaches. The findings of this study affirm the complexities of variations in marks where multiple markers are involved and how assessment practices and approaches affect these.

In an attempt to obtain consistency of standards, it is essential that after establishing or setting these standards, that they are maintained in order to achieve quality of assessment. Maintaining standards during marking involves following a number of procedures as identified in the literature. Greatorex et al., (2002) found that all standardisation aspects are considered important and contribute significantly to high quality assessment, particularly co-ordination meetings and the marking scheme.

Co-ordination meetings often held prior to marking and mandatory for teachers marking coursework, should ensure that standards are maintained. Consistency of standards is defined as ensuring that different assessors interpret the assessment criteria in the same way through an agreement amongst the group (Baird et al., 2004). This group discussion allows exchange of views amongst the assessors on how the marking scheme is being interpreted and this somehow boosts their confidence (Wolf, 1995; Hall & Harding, 2002b). Examiners should follow guidelines provided, such as the marking scheme and criteria, however, evidence shows that this is not always the case. Greatorex et al., (2002) and Baird et al., (2004) nonetheless emphasise that the marking scheme has a strong standardising effect, and if consistency is achieved it means that assessors fully understand what to assess. Examiners from these studies support the use of the ‘banded mark schemes’ derived from the criterion-reference approach to assessment (Greatorex et al., 2002).

A banded mark scheme is one that has descriptors each associated with a band of marks (Greatorex et al., 2002). Examiners use this marking scheme by deciding which level descriptor best describes the student performance, in other words using the principle of ‘best fit.’ Assessment criteria described by Wyatt-Smith and Castleton (2005), is a means of making judgements that are not only reliable, but also defensible since assessors form judgements on the basis of the best match between the evidence and criteria. To support this, other studies (Frederickson & White, 2004; Hargreaves, 1996; Shavelson, 1992) acknowledge that when criteria are well specified, teachers are able to make reliable judgements. Teachers have to be clear about the goal of the assessment so that there is consistency in applying the criteria. The above studies found that the assessment criteria, even though useful, do not

wholly account for how teachers make judgements. In practice, in order for assessors to provide robust judgements and achieve marking consistency, Saddler (1987) suggests that it is not enough to have written criteria and standards; ongoing work must be undertaken to ensure that there is shared understanding amongst assessors. This implies that student work must be assessed in terms of the degree to which it exemplifies the criteria and standards. Evidence further suggests that participation of examiners, especially teachers in developing the criteria and standards, is an effective way of enabling the reliable use of criteria (Hargreaves, 1996; Rowe, 1986).

Another important aspect in maintaining standards is for markers to guard against bias as much as possible. Often examining bodies, when recruiting examiners, ensure that they rotate schools, to avoid marking the same school year after year as a way of guarding against bias. Some studies (Barret, 2000; Good, 1988; Rowe, 1986, Baird et al., 2004 show evidence of the challenge in achieving quality assessment and maintaining standards and the main concern it still is in many education systems.

These researchers suggest that identifying and eliminating sources of error and bias in assessment may contribute towards quality assessment, especially that of coursework. Barrett (2000) has identified that the common errors are severity/leniency, Halo effect and inter-rater reliability which tend to apply to all examiners. Findings of this study have implications for a moderation procedure to account for the errors. These views are consistent with Good's (1988) findings that suggest that differences in marks awarded by teachers and moderators may be due to sources of errors in different situations; therefore, moderation should concentrate on the sources of the errors. Similarly, these researchers emphasise the need for moderation, as a crucial process to achieve consistency, and a focused training of examiners to eliminate the biases and therefore keep the variations within acceptable limits (Clarke & Gipps 2000).

Training is another crucial process in attempting to maintain assessment standards and a level of expertise. Recent studies recommend and stress the importance of assessor training in a 'high stakes' programme with the aim of achieving consistency of standards (Cheung & Yip, 2005; Barret, 2000; Price, 2005; Clarke & Gipps, 2000).

In contrast, Barret (2000) shows that training could help moderators be consistent, but it will not ensure that they award the same mark. Nonetheless, training is an advantage, as little training does not allow assessors to perform the task effectively. It is fundamental that examiners are empowered by training through which they will develop skills and knowledge to enable them to assess correctly. Use of training workshops, courses, experience sharing sessions, and standardisation contributes significantly to boosting confidence as well as providing a full understanding of how and what to assess. Additionally, moderation as Maxwell (2007b) has observed, provides substantially more than mere training. This is so because moderation caters for consensus amongst the moderators so that the work is aligned to the standards and the actual use of student work provides evidence upon which judgements are made.

Training of the examiners should also focus on the sources of bias that have been identified by research. Wigglesworth's (1993) study which experimented with feedback and training, showed that examiner consistency improved and bias was reduced following feedback. However, evidence has shown that re-training does not affect leniency or severity of examiners (Greatorax et al., 2002). The fundamental point is that training brings the bias to an acceptable level even though it cannot be eliminated. Feedback, if given to examiners, is considered good practice and will undoubtedly improve confidence and understanding of standards. However, in practice this is not always possible due to workloads and pressures from set deadlines that assessors are expected to meet. Interestingly, a recent study by Elander and Hardman (2002) which investigated judgements of first and second assessors in essay marking, found that identification of the most accurate assessors is not possible. Hence, the need for assessment systems to find solutions and procedures to try to improve consistency of standards.

3.6 CONCEPTUAL FRAMEWORK FOR THE STUDY

A number of external quality frameworks and models are used by organisation as part of their self-evaluation process (Mizikaci, 2006). For this study, the conceptual framework is based on the systems theory model, which has the advantage of evaluating the educational constructs of the assessment system being studied.

Several models were identified for this study. These models include firstly, the European Foundation for Quality Management (EFQM), which is based on several criteria such as process, policy and resources and used as a self-assessment tool assisting organisations in identifying strengths and weaknesses; secondly, the Basic Skills Agency (BSA) quality mark model, used as a basic quality mark for the post-6 year olds, provides a framework for their continuous improvement; and finally, the Charter Mark model, described as a customer service standard and award often promoted by governments. From the discussions of the above models, it is evident that as these models seem to focus on self-evaluation, they would not be appropriate for this particular study (Mizikaci, 2006).

The systems theory model was preferred as identified by Heyligten (1992). The systems approach is based on the assumption that there are universal principles of organisations (Mizikaci, 2006). It tends to focus on improvement and results and not on the processes as is the focus of this study; but however as the model also looks at educational systems which is the context of this study. It was therefore selected.

In the context of this study, the assessment system follows universal principles that should be of an acceptable quality, such as the assessment policy and practice as well as assuring the quality through certain set criteria. The BGCSE Home Economics programme is, in this case, the educational system under study whose central objective is to award a qualification of an acceptable quality.

System theory explains that in order for systems to function effectively, they should have the following aspects in place: goals, inputs, processes and outputs. Therefore, the inputs, processes and outputs are aspects in an educational system which needs to be evaluated in order to achieve quality. These constructs are inter-related and their relationship lies in the fact that inputs, processes and outputs are influenced by the context in order to be functional.

Systems theory focuses on the arrangement of and relationship between the parts, which connect them into a whole (Heyligten, 1992), illustrating that when outputs are achieved, they finally reflect and influence the context. In the absence of one of these constructs, a system cannot show improvement as the various elements determine how the system functions as a whole.

To ensure the quality of assessment, a number of contributing factors at the input, processes and output levels need to be considered. The environment or context in which the assessment takes place is the main influencing variable which influences the other three which are; inputs, processes and the outputs. This is represented in Figure 3.2 illustrating the inputs, processes and outputs and the interaction of the examiners within the context and showing the relationship between these variables. The environment or context will in this case be the schools, the examining body and the quality assurance unit. The schools should have a certain culture that provide inputs and processes that contribute to achieving outputs.

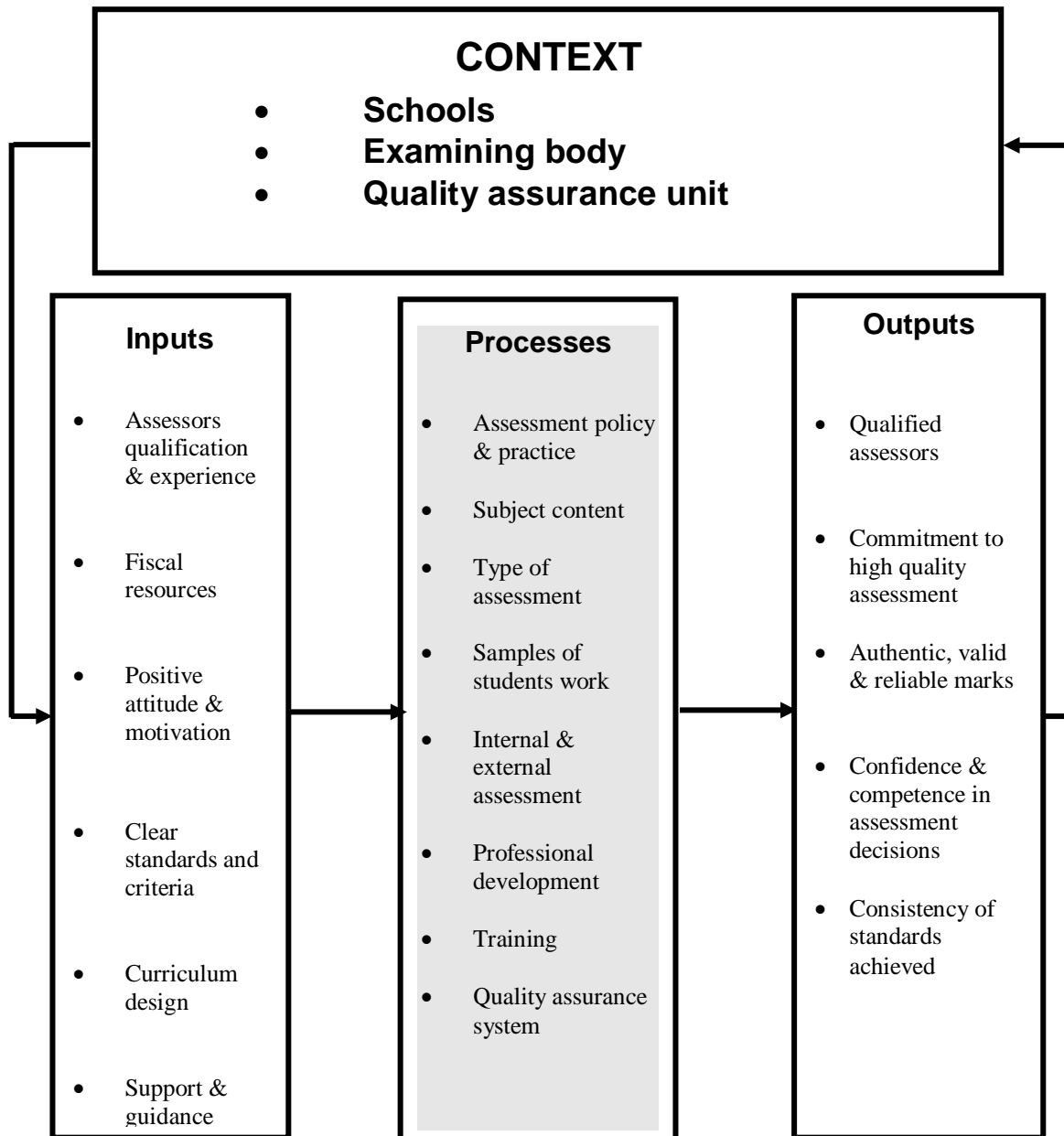


Figure 3.2 *Conceptual framework for the study*

The Systems theory model shows the link between the context and inputs, processes and outputs for this study. These are discussed in the section to follow.

Inputs are the raw materials transformed by the system (Heyligten, 1992); these therefore are the means by which projects in a system are implemented. In this case, it is the resources provided by schools and the examining body to ensure that assessment does take place, as is required by policy. Both fiscal and human resources play a major role.

Variables at the input level, for this study, are qualified and experienced assessors, fiscal resources, clear standards and curriculum that all have to be provided by schools and the examining body. Schools should work together with the examining body in ensuring that examiners are supported and guided. The contexts involvement in enhancing professional development of examiners influence the extent to which coursework is handled.

The term *processes* also referred to as ‘throughput’, are described by Heyligten (1992) as materials that the environment converts to be used by the system. In other words, these are activities taking place in a system which is in this study, represent the coursework assessment both internal and external. Processes here are concerned with the extent to which the assessment meets the requirements in place.

At the process level, samples of students work ready to be marked, internal and external moderation, modes of assessment, subject content and the assessment policy and practice are found. Processes are essentially activities that the school and examining body have in place in order to achieve the high quality assessment and ultimately explain what takes place in the classrooms, the learning outcomes to be assessed and how these skills, knowledge and attitudes are to be assessed. Mostly important at this level are the moderation exercises, how they take place, and what is done to ensure they are done well. These can only be achieved if the correct inputs are in place such as examiners with the qualifications, experience and right attitudes towards their work. The ability for the moderators to mark coursework is dependent on the qualifications because without the correct expertise and confidence, they will not be able to accurately interpret the assessment criteria. Incorrect interpretations result in a poor assessment and one that the public cannot trust.

Outputs are products which result from the systems throughput such as decisions and documents (Heyligten, 1992). In the context of this study, these outputs refer to the end products of the assessment process as influenced by the context, inputs and processes. *Outputs* reflect on the effectiveness of the assessment system especially if quality assurance is to focus on the identified inputs and processes.

At the *output* level, variables such as qualified moderators, who will make accurate interpretations and decisions about assessment, are found, which then results in valid and

reliable coursework marks. If moderators are trained, are given adequate support and guidance they will be suitably equipped and skilled in conducting a fair and equitable assessment.

The model, illustrated in Fig.3.2, shows the relationship between the context, and the inputs, processes and outputs. High quality assessment is dependent on context, which in turn has an influence on the other variables. In other words, outputs in this model are shown as abilities or attitudes that result from an educational experience influenced by context, inputs and processes. The focus of the study is at the processes level, as can be seen from the objectives and the research questions for the study. Process, as what goes on in the system, determines the extent to which assessment of coursework meets the requirements in order to achieve quality.

3.7 SUMMARY

This chapter has provided a detailed account on Home Economics assessment with emphasis on coursework. Formative and summative forms of assessment are important for this study as the BGCSE seems to combine the two forms. Of significance is the fact that teachers and those involved in educational assessment have to be in a position to differentiate between the two.

The discussions in this chapter illustrate the need for moderation in coursework assessment if the results are to be credible. Various forms of moderation have been highlighted with reference to statistical and group moderation that are employed in the BGCSE assessment. Lastly, quality in assessment is a crucial component in assessment. However, in order for quality assessment to be achieved, there is a need for clear standards that are understood by all the examiners.

The literature reviewed in this chapter influenced the development of the conceptual framework as most of the constructs were identified as contributing factors in coursework assessment. The relationship between the context, inputs, processes and outputs were also further confirmed by both the national and international studies (Gipps, 1994; Maxwell, 2006a).

A discussion of the research design and methodology used in this study follows in the next chapter.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

BGCSE Home Economics, which is the context of this study, is a programme of study that offers students an opportunity to choose from three components or sub-areas being: Fashion and Fabrics, Food & Nutrition and Home Management. Students can only take one of these components at a time. For the purpose of this study and due to time constraints, assessment of Food and Nutrition will be investigated in more depth.

The assessment system which is the focus of this study, as described briefly in Chapter 1 Sections 1.2, 1.4 and 1.5, was introduced to teachers via brief training sessions and workshops by the relevant authorities consisting of the examining body and other senior members of the Home Economics department. Teachers were informed about the aims of the general syllabus, marking guidelines and criteria. Apart from this, teachers practised marking of coursework with the aid of the guidelines provided in groups.

I am a teacher of Home Economics who has taught across the three sub-areas of Home Economics for over 20 years. Furthermore, having been in the education profession for this number of years has provided me with the opportunity to teach and moderate both the old and the current syllabi (COSC and BGCSE). Being involved in assessment, especially continuous assessment as attributed to the nature of Home Economics, I found it appropriate to conduct further investigation into issues of quality assurance with the aim of contributing to policy and practice. As a researcher and an educationist, I hope to gain insights into the competence factor of moderators in maintaining high quality assessment of the BGCSE qualification.

This chapter describes the research design used for the current study. Based on the examination of the literature, a qualitative research approach was deemed appropriate to answer the research questions in Chapter 1 Section 1.9. In order to focus and guide the discussions, the research questions and objectives are restated. The data collection techniques for this study are explored in-depth and the shortcomings and strengths highlighted. Section 4.1 introduces the chapter. The research design, with emphasis on the research approach and paradigm, is in Section 4.2. The aims and objectives are discussed in Section 4.3 with the

research questions being highlighted in Section 4.4. Research methods are outlined in Section 4.5 and finally, Section 4.6 gives a summary of the chapter.

4.2 RESEARCH PARADIGM

The interpretive paradigm is characterised by the assumptions of multiple realities and views as argued by Mertens (1998), I conducted interviews with teachers, moderators and subject experts to obtain multiple views and perceptions. Within this particular paradigm, interpretation is important since the researcher should be able to discover meaning of the phenomenon (Merriam, 1988). The interviews allowed me the opportunity to uncover meaning of assessment from the assessors' thoughts and behaviours through their experiences by interpretation of the information they revealed. The experiences and perceptions gained from the assessors were illustrative of Hancock and Algozzine's (2006) explanation of the interpretive paradigm in that "reality does not exist irrespective of people; reality is a construct of human mind" (p.44). Therefore, I was able to capture their understanding of assessment. Furthermore, to the interpretive researcher, the purpose is to advance knowledge by describing and interpreting the phenomena of the world in an attempt to get shared meaning with others (Hancock & Algozzine, 2006).

Literature shows that generally, qualitative research explores the social world and that different qualitative paradigms have different foci (Herbert & Higgs, 2004). In light of this, the interpretive paradigm, unlike the other paradigms, has broad goals which are to "understand, interpret, and seek meaning, illuminate and theorise" (Herbert & Higgs, 2004, p. 63), views which were useful for this study since my intentions were to work along these lines in order to focus on understanding the nature of reality through the respondents' experiences.

In relation to ontology, interpretivists believe that reality and the researcher cannot be separated. Often, interpretivists root their arguments in Husserl's (1970) notion of the life-world, which is that our perceptions about the world are inextricably bound to a stream of our experiences throughout our lives. Evidence shows that the life-world has both subjective and objective characteristics (Weber, 2004). The subjective characteristics reflect our perceptions about how as individuals we make meaning of the world, while the objective characteristics reflect in research how we negotiate meaning with those with whom we interact. Similarly, Patton (1990) views qualitative research as having been charged as being subjective in large

parts because the researcher is the main instrument of both data collection and data interpretation, and because it involves having personal interaction with and getting close to people and the topic under investigation. This could be interpreted to mean that a researcher in a qualitative study cannot be separated from the object of investigation as their interactions influence one another. Creswell (1994) and Neuman (1997) in support are of the opinion that in order to understand the lived experience of human beings, the researcher must interact with them. In essence, this means that the interpretive researchers and the object of investigation are interdependent.

Arguing against the issue of subjectivity as a result of the researcher interacting with the objects under investigation, Patton (1990) questions the credibility essence of subjectivity where data collection instruments are designed by human beings and are therefore subject to the intrusion of the researcher's biases. He therefore believes the only way to ensure credibility is for the researcher to be committed to understanding the world as it is, to be true to the complexities and multiple perceptions as they emerge.

In relation to the research object, interpretivists' assumptions are that they believe the qualities they ascribe are that the objects they are researching are socially constructed (Weber, 2004, p. vi). This means that the researcher and the respondent are interdependent and therefore share products of their life-worlds as this is characterised by knowledge that is socially constructed. Patton (1990) underscores this by arguing that interpretivists recognise that the knowledge they build in fact reflects their goals and experiences.

Another important feature about the interpretive paradigm is the concern that the claims about the knowledge they have acquired during the research is defensible. In essence, in order for the researcher to achieve this, colleagues have to examine and critique the data collected based on aspects such as the context in which the research was conducted and perhaps aspects of knowledge construction. However, the colleagues do not necessarily have to agree with the researchers' claims, but as Patton (1990) advises, they should be willing to concede that the researcher's conclusions are plausible. In regard to this, researchers within the interpretive paradigm often propose criteria for evaluating knowledge claims like credibility, dependability just to mention a few. For this study, these criteria will be discussed in detail later in this chapter.

Interpretivists recognise the knowledge that they build reflects their particular goals and experiences, and these constitute knowledge. For example, in making sense of the world for this study, I intentionally constituted the knowledge within the framework of my intentions for the phenomenon.

In view of this, a qualitative approach was thought to be most appropriate for this study as it allowed me to discover, describe and get to understand the topic under investigation.

A qualitative approach was thought to be most appropriate for this study as it allowed me to discover, describe and get to understand the topic under investigation. Strauss and Corbin (1990) broadly define qualitative research as any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification, while on the other hand, Patton (1990) views it as research that produces findings where the phenomenon of interest unfolds naturally. For the purpose of this study, Patton's definition will be adopted as it succinctly shows the main quality and focus of the qualitative research which is the use of the natural approach during investigation with the aim of understanding the phenomenon in its specific settings.

Studying the phenomenon in the natural setting was important in this study, as it allowed me to understand teachers' and moderators' experiences of assessment. This is in line with the views of Neuman (1997) who contends that qualitative researchers emphasise the importance of the social context for understanding the social world because they hold that the meaning of a social action or statement depends in an important way on the context in which it appears. Additionally, Gay and Airasian (2000) concur with the above views and argue that qualitative research strives to capture the human meanings of social life as it is lived, experienced, and understood by the participants. Furthermore, the two authors consider capturing the context to be very important because it is assumed by the proponents of qualitative research that each context examined is idiosyncratic.

Emphasising the relevance of the use of a qualitative research approach to the social sciences, Thompson-Bacon (1990) argues that the social historical world is not just an object domain that is there to be observed. It is also a subject domain which is made up, in part, of subjects who, in the routine course of their everyday lives, are constantly involved in understanding themselves and others, and in interpreting the actions, utterances and events which take place

around them. Thayer-Bacon (1997) underscores this view by asserting that people are contextual social beings as they are affected by the context and setting in which they are born. Moss (1994) contends that this has two significant implications. In order for social scientists to understand human action, they should not take the position of an outside observer who sees only the physical manifestations of acts. However, they should firstly understand what the actors, from their own viewpoints, mean by their actions and secondly, understand that the interpretations that social scientists construct can be, and often are reinterpreted and integrated into the lives of subjects they describe. This shows that qualitative research is unlike the practices of the positivist tradition as interpretations are more meaningfully constructed in light of the particular cases that they are intended to represent.

Gay and Airasian, (2000), Thompson-Bacon (1990) and Thayer-Bacon (1997) collectively show that people make sense of their world because of their context and that the primary goal of qualitative research is to understand the phenomenon in the context in which it occurs. It is against this background that I, as the researcher, opted for a qualitative research in this study so that I will get to understand the phenomenon being studied better. Qualitative research is sometimes referred to as naturalistic, interpretive, hermeneutical and humanistic follows the social sciences procedures of research (Magagula, 1996). A qualitative researcher attempts to describe and interpret human behaviour and therefore is able to understand participant experiences in relation to the topic under inquiry. These are my intentions as this study will be exploratory and inductive since it is aimed at understanding the phenomena under inquiry (Merriam, 1988). Exploratory for this study means that the topic is being examined since there is little prior research done in the context of Botswana as indicated earlier in Chapter 1 Section 1.5, and therefore, the aim is to investigate the current assessment practices and, through an increased understanding of assessors, offer improvements to both policy and practice.

The inductive approach for this study refers to the inductive analysis of the interview data collected. One way of ensuring and achieving the exploratory aspect of this study is through the use of in-depth interviews that were conducted with those involved in the new assessment system. The interviews were accordingly analysed so that descriptive patterns and categories emerged naturally in which McMillan and Schumacher (2001) further assert, allows synthesis, interpretation and explanation of the phenomenon.

Furthermore, qualitative research allowed me to be the main instrument in the research and I therefore was able to understand the phenomena under inquiry better as I contextualized the data collected. I was able to obtain knowledge and understand assessment of coursework from the viewpoints of those involved through interaction with them and getting to understand the context in which assessment takes place such as in the schools and with the examining body. This is consistent with what is viewed as the focus of qualitative research, to be participants' perceptions, experiences and the way they make sense of their lives (Merriam, 1988; Ross, 1991). Therefore, my role as a researcher was to interpret the participants' experiences of assessing Home Economics coursework in the Botswana context.

The research instruments have elicited data that have provided the multiple realities and views so that I was led to an understanding of how assessment is done by the various examiners and was thus able to develop meaning from the reality as they see it and therefore advance knowledge. Qualitative research is dependent on interpretation for its meaning and the researcher's role in this study as the primary instrument was to elicit understanding, and discover meaning of assessment from the data collected and analyzed (Merriam, 1988).

4.3 AIMS AND OBJECTIVES OF THE STUDY

The main purpose of this study was to explore how moderators achieve high quality assessment during the marking and moderation of Home Economics coursework. Objectives were formulated so as to guide and focus the study as indicated in Chapter 1 Section 1.3. And this is done by eliciting the views of teachers and moderators who are involved in this assessment. As a further attempt to provide what Wiersma (1994) describes as the most valid and accurate possible answers; each sub-question was operationalised as an objective. The following objectives were identified:

- To determine the content knowledge of Home Economics as a school subject.
- To investigate training that teachers and moderators undergo to become competent examiners.
- To explore the quality control mechanisms in assessment of HE coursework, and what the BEC does to ensure that they are adhered to.

- To establish the extent to which the quality control mechanisms in place minimize the variations between teachers and moderator's marks.

4.4 RESEARCH QUESTIONS

The main research question for this study as mentioned earlier in Chapter 1 is:

How do teachers and moderators assess Home Economics coursework in senior secondary schools of Botswana?

Three sub-questions emerged from the main question as highlighted in Section 1.8. Each of these sub-questions were deconstructed and analyzed to identify the keywords for data collection.

1. How are teachers and moderators trained to equip them as competent examiners?

This research question, as indicated earlier in Section 1.6 of Chapter 1, is useful since by investigating the examiners' training, I was able to find out if the training is adequate and of a standard which will allow the examiners to assess subjectively. The keywords in this question are: training, competent and moderation.

2. How is quality assured during marking of coursework?

This question seeks to establish how BGCSE coursework is quality assured and if all the examiners are aware of the mechanisms in place. The keywords under investigation are: quality assurance and control.

3. How does the examining body (ERTD) now BEC ensure that the examiners adhere to the quality control mechanisms?

The above-mentioned question aimed to establish how the examining body plays its primary role in ensuring that the assessment is of the expected standards by using mechanisms in the monitoring process. The key phrases in this question are: adherence to quality control mechanisms and how the examining body assures adherence by the examiners.

In Table 4.1, a specific methodology is listed against each objective and research question to show how relevance is acquired for the study.

OBJECTIVE	RESEARCH QUESTIONS	<u>DATA SOURCES</u>		
		<i>Interviews</i>	<i>Documents</i>	<i>Research diary</i>
To determine the content knowledge of Home Economics as a school subject	How are teachers and moderators trained to equip them as competent examiners?	X	X	X
To investigate training that teachers and moderators undergo to be competent examiners	How is quality assured during marking of coursework?	X	X	X
To explore what the quality control mechanisms in assessment of Home Economics coursework are, and what the BEC does to ensure that they are adhered to.	How does the BEC ensure that the examiners adhere to the quality control mechanisms?	X	X	X

Table 4.1 Objectives and research questions for the study showing methodology used for acquiring the data

4.5 RESEARCH METHODOLOGY

The study used a case study design which is “an intensive study of a single unit with an aim to generalize across a larger set of units” (Gerring, 2004, p. 2). A unit may be a classroom, programme or group and for this study, the unit of activity is the Home Economics programme in Botswana senior schools. A case study is appropriate for this study as it is able to satisfy the three tenets of the qualitative research which are to describe, understand and explain (Gerring, 2004). A further reason for this study using the case study design was because the educational phenomenon under investigation is an important concept while on the other hand it seems to be problematic to examiners. Therefore, I see this phenomenon as a contemporary issue in the educational system and it thus needs investigation. If a ‘how’ or

‘why’ type of question is being asked about a contemporary set of events, over which the investigator has little control, then a case study is the most appropriate method (Yin, 2003). A case study best answers the ‘how’ question that this study seeks to answer as it will allow the researcher to interpret the data and understand it. A case study, an investigation using multiple sources of evidence to study a contemporary phenomenon within its real-life context (Yin, 2003), has been advanced for coursework assessment research in order to understand the nature and complexity of the processes taking place (Gerring, 2004).

A case study design, like most qualitative research designs, is likely to take place in natural settings (Lincoln & Guba, 1985; Merriam, 1988) which means that the researcher is able to study the respondents’ everyday activities and normal routines. In this study, I was able to describe the respondents’ experiences more accurately and thoroughly since I was engaged in an actual interaction with the respondents in a real day-to-day situation in their natural institutional settings. Knowing the context in which the individuals interact is a critical feature of a case study which Martella, Nelson and Martella (1999) support by arguing that being acquainted with the respondents allows one the opportunity of studying them adequately. Literature has identified several context(s) for case(s) in qualitative research as geographical, political, social and economic settings (Creswell, 2003). For the current study, the context consists of social settings such as the respondents’ offices and classrooms in which the interviews were conducted.

Case studies were preferred over the other research designs in this qualitative study as they have a number of advantages as opposed to weakness. These advantages include, firstly, the topic under inquiry can be investigated in far more detail as will be seen later in this report. Secondly, it delivers a unique illustration of real people in real situations (Cohen, Manion & Morris, 2000), which was achieved in this study by use of the respondents’ natural settings in order to get to know and understand their experiences better. Thirdly, the ‘thick description’ offers a database for making judgements about the possible transferability of findings to other milieus (Mertens, 1998; Yin, 2003; Fraenkel & Wallen, 2005). The thick description is a thorough description in the report of what was seen and heard while in the field during the data collection stage. The thick description is explicit in the data analysis chapter of this report where I have frequently used quotations from the respondents with the aim of portraying the culture that I have studied or as Fraenkel and Wallen view it, “to make it come alive for those who will read the report” (2005, p.514).

Further literature searches reveal that there are several types of case studies used by qualitative researchers. Yin (2003b) and Merriam (1988) have identified three such case studies as descriptive, exploratory and explanatory. Firstly, descriptive case studies provide narrative accounts showing context and meaning but also illustrating the complexities of a situation and the many factors influencing it, which ensures that the end product is a rich “thick” description. Secondly, exploratory case studies seek new insights or build a theory, while the explanatory case studies identify patterns. As the purpose of the study was to explore how teachers’ and moderators achieve high quality assessment during the marking and moderation of Home Economics coursework, these three case study categories were identified by authors such as Stake (1997). Accordingly, for this study, the case study is explanatory and descriptive as it seeks to identify patterns in the data collected from the participants with the aim of providing the narrative accounts in Chapter 5.

4.5.1 Sample and sampling procedure

The participants for this study were purposively selected. Wiersma (1994) describes a purposive sample as a sample selected in a non-random manner, based on member characteristics relevant to the research problem. Purposeful or purposive sampling was found to be an appropriate procedure for this study after a reflection on the main research question and the research design. This line of thinking was supported by Merriam (1988) who suggests that in qualitative research, a single case or small sample is selected precisely because the researcher wishes to understand the particular case in depth, not to find out what is generally true of the many, thus allowing access to individuals who are information rich or key informants. The above views are consistent with the assumptions on which purposeful sampling is based where “the researcher wants to discover, understand, and gain insight and therefore must select a small sample from which the most can be learned” (Wiersma, 1994, p. 428). Emphasizing the relevance of purposeful sampling in this qualitative study, Gerring (2004) argues that it allows the researcher to use personal judgments and special knowledge to select the sample. In addition, the use of a small sample contributes significantly to ensuring full understanding and focus on the phenomenon being studied. For the purpose of this study, the sample was selected from Home Economics teachers, moderators and subject experts.

A site selection type of purposive sampling was utilized to select the eight respondents from their sites which are the three regions of Botswana being the south, south central and the central regions of the country. Two examiners from each site were selected based on their

age, experience, number of years of teaching or years of marking and whether they have undergone training or not. The selection was done with the help of an Infinium, which is a list of teachers' particulars from the Ministry of education and from BEC in case of the moderators. In addition two subject specialists were also included. The same criteria applied to the examiners (teachers' and moderators) were also used when selecting the subject specialists. Other possible constructs have not been considered in this study because of various reasons. Gender was not taken into account at all because the number of male teachers in this discipline is significantly too small to contrast their perception with that of female teachers. However, a further criterion for selection was that participants were easily accessible.

The instruments were administered to the eight respondents, as indicated earlier, who were further selected on the basis of convenience and willingness to take part in this study. For this study, this sampling technique was used for practicality and convenience. The examiners who initially were to participate in the study were either too busy or no longer wanted to participate in the study, so examiners who were easily accessible and willing to participate were sampled. Home Economics teachers and moderators were selected for their involvement as subject experts while the officers of the examining body were selected because of their interaction with the examiners and their characteristic relevance to the topic under study.

4.5.2 Data collection

The study was designed by following the principles of the qualitative research, which emphasizes the importance of obtaining multiple perceptions through strategies such as triangulation. The research instruments, interviews, the documents and the research diary were used to gather data and were therefore found useful to achieve a varied construction of realities and perceptions.

This is in line with the views of Patton (1990) who stresses the advantages of using three research instruments in qualitative research in acquiring credible and diverse realities. For these reasons therefore, data collection techniques for this study included semi-structured interviews used as the principal data collection method supported by the documents and the research journal/diary. Data was collected by conducting and recording interviews of about 45 minutes in duration. In order to collect the data, three separate interview schedules of semi-structured interviews were developed based on teachers, moderators and BEC officer's

backgrounds and characteristics relative to the topic (see Appendices D, E and F). The interviews were conducted in order to elicit detailed information about the moderators' views and experiences about the assessment process in which they are involved in the assessment of Home Economics coursework.

4.5.3 Data collection instruments

Interviews

All interview schedules focused on processes, policies and practices of coursework assessment and these interviews, semi-structured in nature, aimed at seeking specific answers from the participants. The intention was to conduct the interviews only once, but if at any stage I was not able to get the desired information, subsequent interviews would then be conducted with the same participants. The interview questions were open-ended and were meant to offer participants the opportunity to express specific descriptions of their experiences and opinions reinforcing the idea that the essence of interviews is to capture the interviewee's perspectives through verbal interaction (Cohen & Manion, 1995; Patton, 1990; Wiersma, 1994; Martella et al., 1999).

Patton (1990) advises that in planning an interview schedule, the researcher has to decide which questions to ask and he offers six categories of questions, namely, experience or behaviour questions, opinion or value questions, feeling questions, knowledge questions, sensory, and demographic questions. For the purpose of this study, the interview schedules consisted of four major types of questions being background or demographic questions, opinion questions, feeling questions and experience questions.

Background or demographic questions elicit information on the background characteristics of the teachers and moderators in terms of experience and qualifications. These questions are important in finding answers to the research questions by showing if experience and qualifications are important factors in the assessment of students' work (Martella et al., 1999). *Opinion questions* are aimed at eliciting information on the examiners' opinion about the whole assessment procedure, its value and goals (Miles & Huberman 1994). The relevance of *feeling questions* in the study was to elicit information about what the teachers and moderators think and feel about the assessment practices in which they are involved. Finally, the *experience questions* focussed on what the examiners are currently assessing and how they

moderated Home Economics coursework in the past (Bell, 1993), indicating and highlighting any significant changes, if any, that they come across between the two assessment systems.

Semi-structured interviews were preferred over the other types of interviews as they offer many advantages. Firstly, interviews have a major advantage as a data collecting instrument because of their adaptability. Bell (1993) noted that a skilful interviewer is able follow up ideas, probe responses and investigate motives and feelings, which a questionnaire cannot do. Secondly, these views are supported by Cohen and Manion (1995) who argue that the interview may be used to follow up unexpected results by going deeper into the motivations of the participants and their reasons for responding as they do. Thirdly, Patton (1990) supports the use of qualitative interviews because of their flexibility where the aim is to understand the participants' experiences and perceptions and not elicit rigid responses within predetermined categories as with a questionnaire.

The interview schedules were formulated with the help of the research questions, the objectives as well as the literature reviewed in Chapter 3. I found it necessary to develop three separate interview schedules for teachers, moderators and subject experts with the examining body (BEC) respectively so that I would obtain multiple perceptions from them since they are all directly involved with BGCSE assessment either as examiners, test developers or subject advisors. However, similar types of questions were repeated in the three interview schedules.

The interview schedules consisted of 16, 17 and 18 items respectively. A different number of questions were formulated for the participants depending on the detail the researcher sought. The items aimed at collecting demographic information about respondents such as post of responsibility, qualification and teaching experience. However, the main part of the interview schedules focused on aspects of assessment and marking, for instance processes, policies and practices of the BGCSE coursework moderation. The final question in all the three cases gave the respondents the opportunity to add further comments if they had any. It must again be noted that these semi-structured interviews consisted mainly of open-ended questions as a way to capture wide perspectives from the respondents.

The interview, whose purpose was to elicit information from the participants in order to understand how they feel and think about assessment, was piloted prior to the conducting of formal interviews. Research shows that piloting of interviews is important for several reasons.

Wiersma (1994) has noted that this allows the researcher to check if the structure and questions meet the requirements of the research and in addition, if it allows the researcher to practise interactive skills required in the interview. As is procedure, piloting of the interviews for this study was done with two examiners in December, 2007. Following the piloting, the interview schedules were appropriately modified for clarity in terms of structure and ambiguity.

Before administering the interviews, I reviewed the interview schedules by revisiting the research questions that this study was attempting to answer. This exercise was important as it allowed me to check if the interview questions would adequately answer the set questions as well as show the link between the two. Table 4.2 below shows how during the above-mentioned review, I cross-checked what interview questions address which questions as identified for this study as a way to achieve the intentions of this investigation (see Appendices A, B and C).

SUB-QUESTIONS	Interview schedule (teachers)	Interview schedule (moderators)	Interview schedule (subject officers)
How are teachers and moderators trained to equip them as competent examiners?	Questions 4, 5 and 6	Questions 3, 4, 5, 6, 7 and 8	Questions 4 and 5
How is quality assured during marking of BGCSE coursework?	Questions 7, 9, 11, 12 and 14	Questions 8, 9, 10, 12 and 13	Questions 7, 8, 9, 11, 12, 13, 15 and 16
How does the examining body ensure that the examiners adhere to the quality control mechanisms?	Questions 13 only	Questions 8 only	Questions 7, 9, 10, 12 and 13

Table 4.2: *The research questions showing their relationship to the interview schedule questions*

Following this review, questions were again modified accordingly. The interviews were conducted by the researcher. Prior to the interviews, permission was sought and appointments made with the identified respondents. Consent letters and the interview schedules were handed over to the respondents so that they had time to read and prepare for the interviews.

Document analysis

This section discusses the second data collection instrument, which is document analysis. As indicated in Section 4.5.2, document analysis was used to corroborate the interviews as the central data collecting source.

Documents have been identified by Yin (2003) as one of the most important sources of evidence in case studies and are categorised as personal, official and popular culture documents (Bogden & Biklen, 2003). Official documents such as education policies, assessment curricula, moderation and standardisation meeting minutes and moderator examination reports were analysed in order to explore the quality control mechanisms put in place during assessment of coursework, as well as what the examining body, the Botswana Examination Council (BEC), does to ensure that markers adhere to the national set standards. These documents, as is procedure in qualitative research, thus gave me objective evidence and corroborated evidence from the interviews.

Furthermore, I looked at factors that might contribute to the variations in terms of teachers and moderators marks. For this study, the information obtained from the documents was corroboratory, rather than contradictory. Information from the moderation, standardisation meetings and reports was consistent with the information from the interviews as it also revealed concerns about the variations of marks between teachers and moderators.

Even though documents are regarded as an important source of data collection they, however, have a weakness. Some researchers such as Bogden and Biklen (2003) and Cresswell (1994) argue against the use of documents as they assert that information found in documents may be incomplete. For instance, this may lead to inaccurate information as in some cases; information from documents may show the author's biases and may therefore highlight only the positives. However, despite the irregularities mentioned above, I chose to use the documents as the intention of this qualitative study was to search for what Bogden and Biklen (2003) describe as the true picture about coursework assessment. My interest here was to get the respondents' views about the phenomenon and develop a better understanding.

Alternatively, documents have several advantages over observations and interviews. Cohen et al., (2000) succinctly state that documents, as permanent products, can be studied by several individuals at different times and they contain information that may not be available anywhere else. For instance, in this study, information about Home Economics coursework can only be contained in the standardisation minutes and the relevant policy documents. The Conceptual Framework (Figure 3.1) shows the relationship between the context, inputs, processes and outputs. High quality assessment is dependent on context, which has a great influence on the other variables as well. The main focus of the study is at the processes level as can be seen from the research questions and the objectives of this study. Process is the course of action, that is, what goes on in the system, and determines the extent to which assessment of coursework meets the requirements in order to achieve quality. Finally, document analysis was valuable in providing a check for interview data as already discussed in this chapter.

Research diary

When conducting interviews, a research diary was kept for taking brief field notes. The field notes incorporated Bogden and Biklen's (2003) advice that details about the physical setting and the reactions of the respondents should be kept with the primary purpose of the research providing "context for the facts observed on the surface level and to add what the researcher thinks the facts mean" (Bogden & Biklen, 2003, p.286). The field notes consisted of two levels: Level 1 was a description of what I saw or overhead, a description of the settings, which, for this study, were respondents' offices and my observations; and Level 2 were notes and recordings of my thoughts and feelings.

4.5.4 Data analysis

The qualitative data obtained from the interviews were analyzed by the researcher through generating categories from the data. Content analysis is a common strategy with qualitative research which Fraenkel and Wallen (2005) have observed as relying on interpretation, is concerned with explaining findings and giving meaning. This therefore, means that content analysis allows the researcher to obtain descriptive information about the topic under inquiry and then get to understand it better.

Miles and Huberman (1994) define data analysis in qualitative research as containing three linked sub-processes, namely: data reduction, data display and conclusion drawing and

verification. Data reduction simply means reducing all the data collected into manageable categories. This is done to help the researcher focus on the analysis process (Creswell, 1994; Patton, 1990; Gay & Airasian, 2000), examining field notes and transcriptions from the interviews.

Inductive analysis generates theories that explain the data (Ross, 1991) while the deductive approach is based on the research objectives and is concurrent and interdependent (Merriam, 1988; Creswell, 1994a). This study is an example of where both inductive and deductive analysis is useful; for example, use of analysis of documents demonstrates the inductive approach since the researcher was able to identify themes that best describe coursework assessment from moderation/standardisation meetings as well as reports.

Analysis began during data collection and it was a continuous process which allowed me to search for similarities, themes, and differences from the data. Furthermore, this allowed me to induce reasoning from the data and therefore gain a deep understanding of the research puzzle.

The fact that content analysis relies on interpretation means that the researcher, in order to be able to describe the phenomenon under inquiry, must make sure that the data is detailed. Patton (1990) draws attention to the fact that the main focus of the qualitative analysis is on the thick description. The researcher often achieves this by describing what was heard using extensive quotations from the interviews. For the current study, use of the interviews with mainly open-ended questions provided detailed information and allowed for use of direct quotations from the interviewees to elicit meaning from the data. Patton (1990) further emphasises the importance of place, time, context and culture to this effect, which are essential components in ensuring the thick description in qualitative research.

Thematic content analysis was used for this study. When conducting this analysis, I interpreted the transcribed text in a systematic way by coding and identifying unique patterns formed in the data that describe the phenomenon (Thorne, 2000). Content analysis, as identified in literature (Thorne, 2000) follows five steps:

Step 1: Transcribing was done by transforming the data into a written format as well as reading through the transcriptions to obtain meaning from the text. I made copies of the data

(both hard and electronic files); one copy was for me to work from while another was for safekeeping. I read the transcripts several times in order to understand the data. This can be regarded as “data cleaning” (Thomas, 2003); I ensured that I would be able to identify the sources of all the data in case I had to refer back to the originals by clearly showing the interview date, interview number, and giving interviewee’s pseudonym. It must however be noted that each interview was analyzed independently.

Step 2: The transcripts were read word for word while I listened to the audiotapes to ensure accuracy of the transcripts of the interviews on line-by-line basis. After transcribing the interviews, I gave them to the respondents for approval and agreement (member checking). I analysed the transcripts in a continuous process of reading and re-reading the data several times in order to identify patterns of understanding and to examine its quality. The thorough checking and editing of the data was essential since it came from multiple respondents. Thomas (2003) further refers to this step as close reading of the text, and stresses that it also allows the researcher to gain understanding of the themes. Each sentence was numbered to help with sorting and as reference at a later stage during report writing, for example use of verbatim text. I then decided on the unit of analysis. I coded the whole text in order to develop themes. The themes, which were used as a coding unit, helped me in deciding which text was to be classified.

Step 3: I developed categories and a coding scheme. Literature shows that “categories and a coding scheme can be derived from the data itself, previous studies or theories” (Thorne, 2000, p. 135). Often qualitative theorists describe categories created from the data as upper and lower levels. Thomas (2003) points out that these categories are derived from the research objectives and from the multiple readings of the raw data respectively. However, for this study, categories and a coding scheme were inductively generated from the data. I went through comparisons of the data to be able to identify, build and refine unique categories so that patterns formed. This search for similarities, differences and concepts forms part of the continuous process of data analysis. It must be noted however, that categories are flexible and may be modified during analysis.

Step 4: I then coded the whole text in order to deduce meaning from the transcribed data. When developing categories and a coding scheme, the literature shows several procedures that may be used (Miles & Huberman, 1994; Slember, 2001; Berg, 1998). Accordingly, for this

study, it has been more appropriate to adopt Miles and Huberman's (1994) two approaches to coding as they generate pattern codes: emergent coding was utilized in examining the data thoroughly so as to identify the themes, and priori coding was used to identify codes from a number of sources such as from the research questions, the objectives as well as the interview schedules. Reading through the field notes and transcripts made this type of coding possible.

Step 5: The transcribed interviews were sent to my supervisor at the University of Pretoria for cross-checking which contributed to the trustworthiness of the data interpretation. The data consisted of summaries and synopses of the reduced data. Patton (1990) has observed that after data has been grouped into meaningful clusters, a delimitation process is undergone.

Coding allowed me to compare the data as I identified patterns as they formed based on topics or concepts relevant to this investigation. The idea behind the comparisons was to explore experiences shared by the respondents as well as search for inconsistencies between descriptive accounts which Mertens (1998) argues helps in identifying any negative evidence that needs to be taken into account in the analysis process. It must be noted that a more distinct feature about data that is coded in the same way, has a common description about assessment of coursework. I proceeded with creating new codes in cases where a theme did not fully fit into the already existing ones; therefore the codes increased as I read and re-read the transcripts and identified themes.

Additionally in assessing and identifying themes, I drew upon suggestions from Strauss and Corbin (1990) to employ procedures such as constant comparison, word repetition and keywords-in context (KWIC). Constant comparison, beneficial in allowing the researcher to code consistently, meant that I compared every paragraph coding each one with the previous one. In word repetition, I looked for commonly used words and in KWIC; I searched for the use of keywords in context, which led me to look for key terms in sentences as they occurred. However, a considerable amount of data was not coded, as it was not relevant to the research questions or the objectives.

I then organized all the codes into coherent categories as a way of summarizing it, which Powell and Renner (2003) consider as the crux of qualitative analysis. Again, as an attempt to identify more themes, I looked for unfamiliar terms from the text. This is what Patton (1990) refers to as "indigenous categories"; for example, respondents in this study used terms such as

deviating, double marking subjectivity. Strauss and Corbin (1990) refer to this similar process as ‘in vivo’ coding. Additionally, Berg (1987) also suggests that categories used in content analysis can be determined inductively, deductively, or by a combination of both.

As my intentions as a researcher were to capture the key themes addressing the research objectives, I created categories of main themes from this analysis as can be seen from Table: 4.3. This is the stage during which similar themes had to be merged into similar allied categories. A short description of these themes will be given in the next chapter together with representative quotations taken directly from the raw data.

RESEARCH QUESTION	RESPONSES TO THE QUESTIONS SORTED INTO CATEGORIES
How are teachers and moderators trained to equip them as competent examiners?	Standardisation, no training for teachers, in-service, training duration, not beneficial, workshops, inadequate.
How is quality assured during marking of coursework?	Double marking, standardisations, no checks, not accountable.
How does the BEC ensure that the examiners adhere to the QCM?	Monitoring examiners’ work, senior teachers should check, BEC does not check.

Table 4.3: *Examples of categories that emerged in response to the research questions for this study*

The final stage of content analysis is where comparisons and contrasts are made (See Figure 4.1 for a Stage model of qualitative content analysis). The write up and presentation of the findings follows the reporting approach where key findings are listed under themes or categories. Quotes from the interviews are also used as a way to convey the context of the study as can be seen in Chapter 5 Section 5.4.

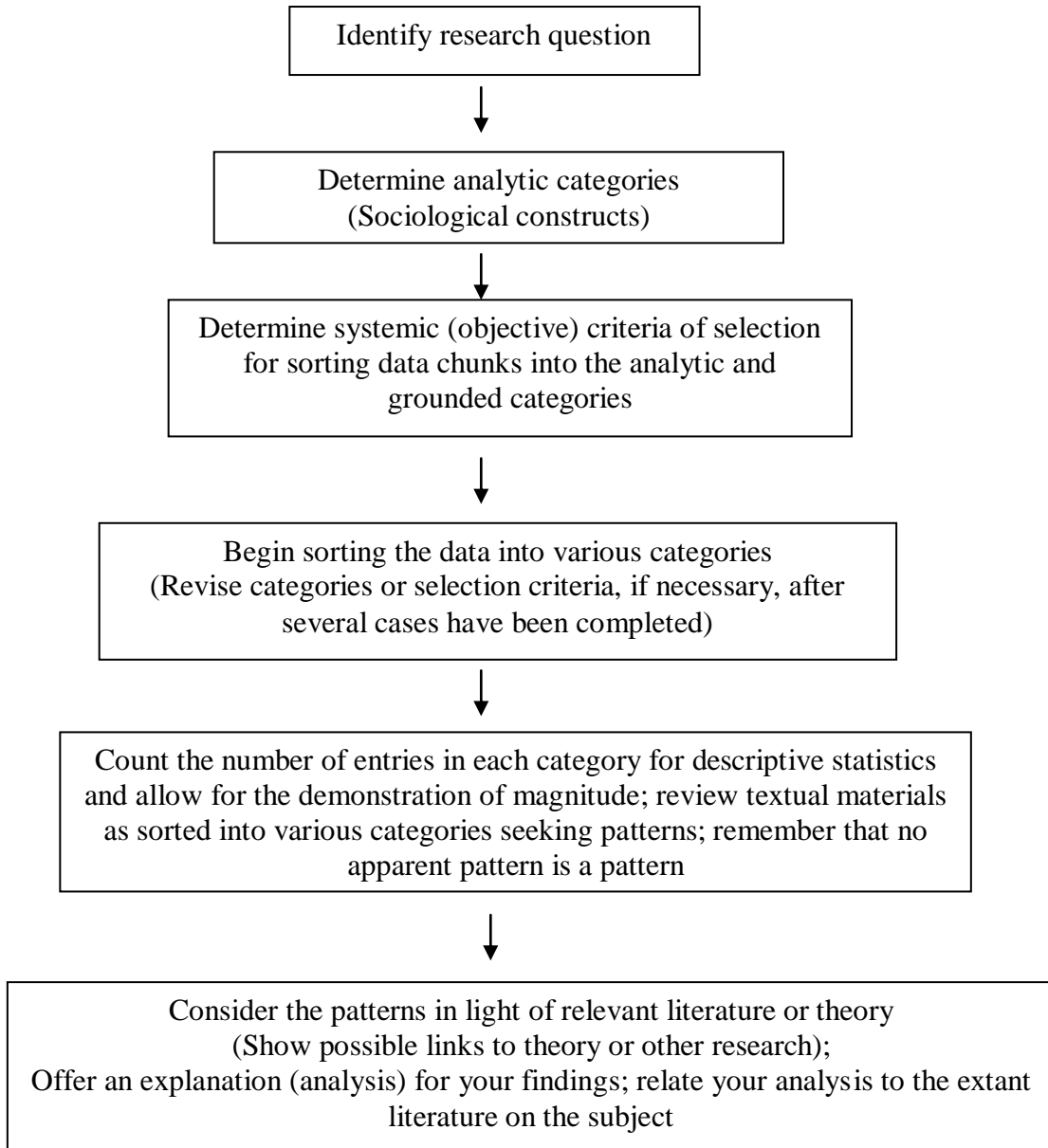


Figure 4.1: *Stage Model of Qualitative Content Analysis (adapted from Algozzine and Hancock (2006))*

4.5.5 Methodological norms

A review of the literature shows that there are various strategies that can be employed in assessing the quality of research. It is important to evaluate a study in terms of trustworthiness through criteria which have been identified by research methodologists within the interpretive paradigm and also accepted as key in qualitative research. Donoghue (2007) shows them as credibility, dependability, conformability and transferability. These concepts examine the extent to which the findings of a study can be trusted.

Credibility

Credibility, concerned with the trustfulness of the research findings for this study, was enhanced by a number of procedures. Triangulation was employed and is seen where data were collected through the use of sources such as interviews and documents but were also corroborated by the field notes made during interviewing. Member checking was employed throughout the data analysis process as well as during the report writing stage. At an early stage after transcribing the interviews, I asked the respondents to check and comment on the accuracy of the transcripts. Later I asked them to critically examine the drafts of the interpretive writing that relates to their interviews. Finally, the respondents received feedback on the conclusions of the study at draft level in order to allow me to incorporate useful amendments. Comments from the respondents, if exceptionally useful, were published as part of the study report as it is a way of validating procedure which illustrates that the respondents provided the majority of the research input.

Peer debriefing was done by asking an MEd student in the Centre for Evaluation and Assessment at the university and colleagues from senior secondary schools in Botswana to check the questions for ambiguity before the interviews were conducted, and once again at the analysis stage. The idea here was for the colleagues to examine the evidence I had collected, the research process that I used, the context in which I conducted the research. The use of verbatim quotations from the interviews were included to give a ‘thick description’ of the data as illustrated in Chapter 5 and in addition, the use of purposeful sampling provided me with the advantage of selecting what Merriam (1988) describes as ‘information rich’ participants who would offer detail and depth to the investigation. She further asserts that in qualitative research, a single unit or case is selected precisely because the researcher wishes to understand it in depth (Merriam, 1988).

The notion of reflexivity was used as I showed awareness of my biases and judgement as the researcher in this study by explicitly reflecting and reporting them with reference to the research journal kept during data collection. This idea is supported by Creswell (1994a) who argues that reflexivity is useful because it assists in shaping the interpretations of the report.

Dependability

Dependability is concerned with the consistency of the findings for the study and it is equated with reliability. (Donoghue, 2007). The dependability of the study was ensured during data collection, analysis and interpretation so that there is consistency of the results. I conducted an audit trail by describing in detail how data were collected and analyzed. I then asked my colleagues (in peer debriefing) to examine the findings. Donoghue (2007) views an audit trail as an accepted strategy for demonstrating stability and trackability of data and the development of theory in qualitative studies. The audit trail walks the readers through the work from the beginning to end so that they understand the path taken and the trustworthiness of the outcomes (Donoghue, 2007).

Confirmability

Confirmability, which is equated to objectivity, is concerned with data collection and analysis procedures that allows only one meaning and interpretation to be derived. Lincoln and Guba (1985) describe confirmability as the extent to which the data and interpretations of the study are grounded in events rather than the enquirer's personal constructions. It is important to attempt to keep the researcher's bias to the minimal. Reflexivity is one way of establishing trustworthiness as illustrated in the current study by reflecting on my perceptions in relation to subjectivity and my biases. Reflexivity will be discussed in detail later in this section.

Confirmability is also enhanced by an audit trail which often entails safe storing of raw data interview tapes, transcripts and field notes. However, for the present study it has been more appropriate to adopt Lincoln and Guba (1985) notion of dependability which states that the researcher ought to concur with the research findings.

Triangulation

The data collection techniques were used together for triangulation purposes. Triangulation is qualitative cross validation of data using multiple data sources or multiple data collection procedures (Wiersma, 1994). Literature shows that triangulation can be done on different

parts of qualitative research (Patton, 1990). Firstly, data triangulation enables the researcher to combine two data collecting instruments; secondly, methodological triangulation commonly uses two research paradigms together. Thirdly, investigator triangulation is where multiple researchers are used. For this study, data triangulation was used as data from interviews; documents and the research journal or diary was used. This allowed me to compare data from the two data collection instruments being the interviews and document analysis as well as my own reflections from my research journal and discover which inferences are valid as well as improve the credibility of the studies.

4.5.6 Reflexivity

The notion of reflexivity is a procedure in qualitative research where the researcher reflects on the nature of involvement in the research process particularly reflecting on herself as researcher and the way this has shaped the research process as a whole (The School of Human and Health Sciences, University of Huddersfield, 2005). In discussing the notion of reflexivity, the focus is on its importance and how it was addressed in the current study. Emphasis and reference was made to the research journal that I kept during data collection and analysis. According to the School of Human and Health Sciences, University of Huddersfield (2005), the techniques for quality checking described earlier in this section under trustworthiness can all be seen as ways of encouraging reflexivity. However, reflexivity, unlike quality checking that is done only at certain stages, is done throughout the process. Arguments for reflexivity on the part of the researcher are varied, and show that it is widely used in qualitative research (Knapik, 2006; Creswell, 1994a; Bogdan & Biklen, 2003). However, research methodologists who argue for reflexivity emphasise that “it is a methodological tool as it intersects with debates and questions surrounding representation in qualitative research” (Pillow, 2003, p. 177).

As with any research, qualitative research requires thorough record keeping, clear description of its procedures and illustrative presentations of the data collected for others to understand, reconstruct and scrutinise (Miles & Huberman, 1994). In an attempt to meet the above-mentioned requirements, I presented the data in both text and tables so that the readers can understand it. In representing data from the analytical stage, I explicitly described the process systematically and illustrated, where appropriate, by means of a table to show from where I developed the interpretations (see Table 4.3). Also of significance, is the use of data from the interviews to illustrate certain observed patterns so that the readers are exposed to various

excerpts particularly examples of negative perceptions to illustrate the nature of the patterns as well as pertinent respondents' experiences and perceptions about this inquiry (see Chapter 5).

In uncovering and reflecting on the subjective nature of knowledge production in this qualitative study, I used the interviews to become aware of my perceptual biases and presuppositions in the research process. I was conscious of the ethical standards as I strove to respect and make the respondents comfortable as much as possible throughout the interviews. The procedures and steps that I followed to gain entry are discussed in detail under ethical consideration in this chapter (Section 4.5.7). As a way to address 'researcher's subjectivity' during interviewing, I allowed the respondents, through the flexible approach that I adopted, to speak openly and easily as I did very little talking but rather listened intently. What is evident from this is the fact that I was doing the research with them and not on them. I deconstructed my authority as a researcher during the interviews by allowing the respondents to check and comment on the transcripts after which their comments were incorporated. At draft level, the report was again made available to the respondents to check for accuracy and completeness after which I agreed and settled any differences before publication of the report.

One other important aspect of reflexivity to note during interviewing is associated with the notion of power relationships. Cohen et al., (2000) argue that a researcher in a study is in a position of relative power in relation to the respondent by virtue of professional expertise and their role as the interviewer. As a result, the respondent may be uneasy and intimidated; therefore, it was important for me to deconstruct my authority so that the respondents were willing to share their experiences freely. The ongoing negotiations between the researchers and the respondents such as interview appointments and construction of meaning that I negotiated with the respondents inevitably allayed the power issues.

Pillow (2003) notes that power relations are faced by both the insider and the outsider. The insider as the researcher is part of the community with the respondents. In the current study, the concept of dual identities as Pillow (2003) asserts is significant because as a researcher, I played the role of an 'outsider,' while as a teacher and moderators of Home Economics I also played the role of an 'insider.' The solution for me was to be aware of my subjectivity. Mruck and Breuer (2003) have observed that subjectivity operates during the entire research process, not just during the writing stage hence the need to reflect on the researcher and the research process. Pillow (2003) in support of this opinion, advises the need for what he

describes as self-reflexivity, which implies that a researcher has to get to know his/her subjectivity and make it known to the readers and be able to monitor the way decisions are made so that the researcher and respondent become joined. In view of this, it could be concluded that self-reflexivity, among other things, includes the researcher's honesty particularly to the respondents, which in this study was adhered to, as highlighted in the respondents' consent forms (see Appendix I).

Evident also during this reflection process, is my keeping of a research journal. The research journal allowed me to write field notes as I was interviewing to record my thoughts and feeling about the situation, the context, the interview and the participant.

4.5.7 Ethical considerations

Ethical issues play an important part in research and there are guidelines, in some cases published by governmental groups, to which every research should adhere. According to McMillan and Schumacher, "ethics are generally considered to deal with beliefs about what is right or wrong, proper or improper, good and bad" (1993a p. 245). Permission was sought from the University of Pretoria Ethics Committee, regional offices and the Ministry of Education, Botswana, for conducting the research in schools prior to data collection (See Appendices G, H and I). Data collection commenced in January/February 2008 upon obtaining the clearance certificate from the University of Pretoria.

To ensure that the study was conducted in an ethical manner, I was aware of my obligations in the study and therefore I had to honour all the agreement in the consent form. In order to accomplish this, I tried as far as possible to follow all ethical and legal requirements regarding research respondents as per University requirements and as provided in the literature. Of significance, is the fact that the ethical considerations applied not only to the research respondents, but also to the entire research process. Before commencing with the interviews the respondents were made aware verbally and in writing that their participation was voluntary and they may opt out at anytime if they wished. The objectives: including a description of how data was to be collected, especially the tape recordings, was given so that the respondents had a full understanding about their participation in this study. They were also made aware of the fact that the transcripts and the final report would be made available to them to check for correctness. However, I reiterated that the data would only be used for my Master's Dissertation and the writing of an academic article (see Appendix I).

In light of the above points, the respondents signed the form to provide an informed consent. Additionally, just before each interview, the respondents were once more offered the opportunity to read the consent form and the interview questions by themselves or I went over these with them. I also invited an expanded discussion to address their more personal concerns and their participation when needed, which included making interview appointments when most convenient for them.

Confidentiality and anonymity was offered throughout the study since I was conscious that I had to respect the respondents' rights, needs and values as Creswell (1994a) advises. Firstly, I strove to make the respondents comfortable during the interview by encouraging them to share whatever they felt was relevant about assessment and their own experiences as examiners. The aim was to reveal otherwise hidden information carefully that could perhaps indicate an underlying reality for this study. This followed Knapik's line of thinking that "ethically, we must allow other people to be both specifically vague, that is, to be only partially clear in what they say" (2006, p. 8). As the researcher, I then either made their meaning clear or allowed further opportunities for them to make themselves clear through probing. Secondly, I guaranteed that neither the respondents' names nor work places would be revealed. In some instances, where the chosen venue for the interviews did not grant privacy and anonymity, the interviews were done in a secluded place in which the respondents felt comfortable and at ease to speak openly about their points of view. Furthermore, to encourage openness, I was as flexible as possible in my approach to the respondents. Thirdly, permission was obtained from the respondent before recording the interviews and I also made them aware of the expected interview duration. As is procedure, I thanked respondents in writing after conducting the interviews as a gesture of appreciation for their contribution to the study. Lastly, I transcribed the interviews and returned them to the respondents for a review of accuracy and completeness as a way to enhance the results of this study.

4.6 SUMMARY

This chapter provided an overview of the research design and methodology for the study. Qualitative research as the design for the current study is discussed in detail. The focus of the discussions is on the interpretive research paradigm in terms of the philosophical correlates, its assumptions and its appropriateness for the study.

The research questions were restated and analyzed in order to show the relationship with the conceptual framework and the objectives that the study aimed to achieve. The chapter further discussed qualitative assumptions with the interpretive paradigm as the central focus, while data collection captured the use of the semi-structured interviews and document analysis with a detailed account on why these instruments were chosen for data collection. The data analysis process has attempted to show how the data was coded, leading to themes and categories which then allowed interpretation.

Finally, the quality of the study was examined by exploring the trustworthiness criteria common in a qualitative approach. Also taken into consideration is the fact that readers need to understand the ideas and views of the researcher in a qualitative study. Therefore, taking this into consideration and in order to help shape the interpretations of the report, I reflected on my role as the researcher in this study as I discussed and acknowledged biases especially at epistemological level.

In the next chapter the findings of the study, as they emerge from the data collected and the literature reviewed in Chapter 3, are discussed and summarised.

CHAPTER 5

FINDINGS AND INTERPRETATIONS

5.1 INTRODUCTION

This chapter presents the findings and discussions derived from the research design and methodology discussed in detail in Chapter 4 of this study. The study aimed to explore how examiners (teachers and moderators) achieve and maintain high quality assessment during the marking and moderation of the BGCSE Home Economics coursework. The study was guided by the following research questions:

1. How are teachers and moderators trained to equip them as competent examiners?
2. How is quality assured during marking of coursework?
3. How does the examining body (BEC) ensure that all examiners adhere to the quality control mechanisms?

The presentation is organized in the following manner: Section 5.2 provides a summary of the procedure followed while Section 5.3 discusses the background or biographical information pertaining to the respondents. Section 5.4 provides the analysis and discussions of data obtained from the semi-structured interviews as well as the document analysis and research journal/diary. Finally, Section 5.5 presents a summary of the chapter and results.

5.2 SUMMARY OF PROCEDURES FOLLOWED

I conducted individual interviews to gather data for this study. Three interview guides were constructed with a varying number of questions for the groups of the respondents (see Appendices D, E and F). These interview guides were useful in ensuring that I focused on relevant questions for the study, thus also serving as an outline of the interviews. Prior to the start of the interviews, I asked the respondents about their willingness to participate in the interviews and their intention to contribute time and input in the study. All the respondents were willing to participate in the interviews. Each respondent then received a consent form and an interview guide, which they read and further discussed for clarity purposes.

The individual semi-structured interviews were conducted with the examiners and the BEC subject officers and then transcribed. The analysis of the transcriptions and the analysis of official documents, further supported by the research diary, were used to achieve the above-mentioned purpose as well as answer the research questions outlined in Section 5.1.

The interviews used both open and probing questions (Appendices D, E and F) which allowed the respondents to answer the questions according to their own views and understandings of a range of concepts such as standards, systems and roles (Patton, 1990). Furthermore, it was possible for me to explore the points made by the respondents in an attempt to establish intention and meaning. Such an approach inevitably led to additional questions and themes being uncovered according to the flow of the conversation. With the permission of the respondents, the interviews were tape recorded, to ensure verbatim transcription. The interviews were conducted only once, no subsequent interviews were done in order to obtain a wider picture of their views since clarity was sought during probing.

I analyzed the data using the work of Miles and Huberman (1994) as a guide. This allowed me to identify categories and themes from the transcripts. All of the eight interview results were subsequently incorporated into data analysis. Coding categories were identified to capture a range of content in the respondents' answers. The categories were found to be particularly prominent in achieving the aims of this study.

I then reduced the categories to five by merging some of the sub-categories with similar allied ones. I achieved this through the continuous analysis process of reading and re-reading the transcripts with the aim of identifying patterns of understanding. Then similar categories were grouped together and compared with each other to identify similarities and differences. The idea behind all these comparisons was to explore experiences shared by the respondents and obtain more defined categories. Examples of categories that were identified to find responses to the research questions are illustrated in Chapter 4 Table 4.3 of this study. Finally, I identified the following summary categories as the most important as they capture the key aspects of the themes and are closely related to the research aims and objectives:

- Specialisation
- Examining experience
- Training
- Moderation procedures

- Quality control mechanisms and
- Reliability of assessment

An example of the final coding framework after reduction of the categories, as mentioned above, is illustrated in Table 5.1 below and shows how I arrived at the categories from the initial coding framework (Appendix I).

Initial coding framework	Final coding framework
<ul style="list-style-type: none"> • More than 10 years moderating • Internal for 5 years and external 1 year • Most of them experienced 	1. Examining experience
<ul style="list-style-type: none"> • Once at departmental level • Need further training • Training emphasises professionalism • Standardisation training 	2. Training
<ul style="list-style-type: none"> • Standardisation • Statistical moderation • Moderation meeting 	3. Moderation procedures
<ul style="list-style-type: none"> • Moderation • Improves credibility 	4. Quality control mechanisms
<ul style="list-style-type: none"> • Emphasis on consistency • Inconsistencies between teachers 	5. Reliability

Table 5.1 *An example of the final coding framework after reduction of the categories through Merging similar sub-categories*

In view of this, an inductive style of reporting the analysis was adopted for this study, which meant that each category was developed from the data and then key information about the category was additionally reported (Thomas, 2003). Firstly, I labelled the category, secondly, I gave a brief description or meaning of that category, and thirdly, as a way to elaborate on the meaning of the category, I used quotations from the text. This was done to convey the context of the study and demonstrate explicit knowledge of the respondents' views. Pseudonyms are used throughout the study in the respondents' narrative accounts and interpretations.

As indicated earlier in Chapter 4 of this study, the top-level categories mentioned above, are used as sub-headings during discussions of findings as illustrated later in this chapter. The

presentation sections will be in both text and tables in order to facilitate the reading of the report.

5.3 DESCRIPTION OF THE RESPONDENTS

The data were gathered using the semi-structured interviews in order to elicit and capture information on the respondents' qualifications, post of responsibilities, teaching and/or moderation experience. I interviewed eight respondents who were purposefully sampled from across Botswana, as previously mentioned. An attempt was made to use a sample with a balance in urban and rural teaching/examining experience. I selected the respondents from across the four regions of the country being: south, south central, north and the western which provided representation of various contexts in this study.

Seven out of the eight respondents were qualified Home Economics teachers who were either involved in coursework assessment at centre level as teachers or at national level as external moderators. Of significance, is the fact that they were all directly involved in coursework assessment as subject experts who again are involved in assessment on a daily basis. It was because of this background that they were sampled to participate as I felt that they were in a suitable position to interpret assessment issues appropriately. Two of the eight respondents were BEC subject officers who were teachers and examiners prior to joining the Examinations Council. Interviewing the latter was a way of soliciting their views on the BGCSE assessment, as they are responsible for the conduct at all stages and aspects of the moderation exercise. Additionally, as subject officers, they are involved in monitoring and guiding the assessment process with the aim of ensuring that standards of excellence are achieved.

Accordingly, for this study, demographical data is analysed in order to show the context for the results as well as to explore the examiners' qualifications, experience and its impact on achieving dependability and credibility in assessment. A detailed profile of the respondents' background information includes educational qualifications, teaching and BGCSE moderating experience and is illustrated in Table 5.2.

Interview	Pseudonyms	Teaching experience	Moderation experience (BGCSE)	Qualifications	HE sub-area preferred
1	Bontlha	5 yrs	1 yr	BEd	HM
2	Bobedi	14 yrs	2 yrs	BEd	FF
3	Boraro	6 yrs	-	PhD	-
4	Bone	15 yrs	8 yrs	BEd	FN
5	Botlhano	20 yrs	16 yrs	MEd	FF
6	Borataro	19 yrs	1 yr	BSci	FN
7	Bosupa	16 yrs	12 yrs	BEd	FN
8	Borobedi	17 yrs	-	BA	-

Table 5.2: *Respondents' experience (teaching, moderation), qualifications and areas of specialisation*

Generally, the examiners are qualified as they are all educated to degree level and therefore are expected to possess relevant knowledge about the subject at senior level (see Table 5.2). Seven examiners hold a Bachelor's Degree while one has a Master's Degree and the subject officers have a Bachelor's Degree and one has a Doctoral degree. The nature of work, level of support and expertise expected from the officers requires that they be more qualified and experienced than the examiners they supervise. The examiners teaching and/or moderation experience ranges from one year to sixteen years. This construct will be discussed in depth in Section 5.4.1 of this chapter.

Examining and teaching experience is another important aspect that has been captured in the analysis illustrated in Table 5.2 and significant as an input factor in the conceptual framework that guides this study. It can be seen from the above table that the examiners have relevant experience in teaching the subject, ranging from five to 20 years, while in examining, experience ranges from one to 12 years. It must, however, be noted that some of the examiners have, in addition, examining experience at junior secondary level that has not been highlighted in this analysis which is an added advantage in their examining role. Again all the examiners have more experience than the analysis shows since they are also involved in the internal moderation in the school-based assessment as teachers.

5.4 DATA ANALYSIS AND DISCUSSION OF THEMES

Even though the intentions of this study were to focus on FN, I thought it would be interesting to examine the respondents' preferences in terms of teaching and moderation to see if this could be a contributing factor towards their marking of coursework. Even though this construct may be of little significance in this study, I thought its inclusion might highlight some valuable information regarding the way the examiners view and mark coursework.

Six themes emerged from the data as; specialisation in Home Economics, examining experience, training, moderation procedures, quality control mechanisms and support strategies for the moderators. These themes will be individually discussed in the sections to follow.

5.4.1 Specialisation in Home Economics

Currently, the situation is such that specialisation is not considered when it comes to marking and moderating of coursework, as teachers in schools are expected to teach at least two of the sub-areas or in some cases, when it comes to marking, they mark across all the three sub-areas offered at senior level.

Data from this study shows that three of the respondents would like to specialise in FN, with two in FF and only one in HM (see Table 5.2). There are various reasons the examiners give for their preferences, which could have developed during training, teaching, or examining as one of the respondents says:

...My preference is with FN...eeh generally when I started I liked all the areas but when I went for my degree I specialised in FN during my third and fourth year and then my interest developed in this area (Interviewee 2, January, 2008).

In addition to the above response with regard to specialisation and preference, one respondent provided further evidence that their training influenced examiner focus on sub-areas by saying that:

...I prefer FN because of the training that I have done, basically all my modules were food related and therefore I developed interest and expertise (Interviewee 7, January, 2008).

The data provided by the above two respondents supported the findings provided by the Home Economics Moderation (2003), BGCSE Marking Workshop (2004), that lack of specialisation poses a challenge in coursework assessment as it is time-consuming and not motivating as examiners may not have interest in that area and therefore lack confidence, skills and knowledge.

Based on the above responses, it can therefore be argued that the examiners value their areas of speciality during assessment, and allowing them to specialise may improve the way they assess and become more accountable. As an examiner myself, I reflected that in the early years of examining, I found it difficult to assess areas where I had little expertise and would have preferred assessing FN, as this was my area of specialisation. Emphasising the relevance of this view, Gipps (1994) argues that for practical subjects like Home Economics, the assessment relies heavily on human decision and behaviours which suggests that relevant knowledge, experience and interest may positively affect accurate judgement of student work.

However, this study revealed concern that the examiners are not given a chance to specialise and are unhappy as indicated by one respondent who viewed this as unfair:

... I prefer FF, but according to the situation in the working environment one is obliged to examine across the sub-areas, which is really de-motivating (Interview 2, January, 2008).

One of the respondents felt they should mark areas of their preference and said that:

...I prefer HM project, I...eeh... because it is quite easy to moderate as the marking criteria is clear and what is needed from the candidates is clear there is no ambiguity. That is where my interest is now, as I get so involved during project supervision (Interviewee 1, January 2008).

The above responses suggest the need for the BEC to allow the examiners to specialise possibly at both centre and national level as a way of getting them to focus and work towards credibility in assessment. As an examiner myself, during the early years of examining I also felt

5.4.2 Examining experience

One emergent theme was the examiners' the notion of examining and/or teaching experience. There is a relationship between teaching and examining experiences because those examiners with more teaching experience, as Shulman (1986) has observed, which shows that their experiences are reflected in the way they manage complexity in assessment. This is further illustrated by the fact that examiners with more examining experience are expected by the examining body to not only guide others, but also produce dependable and credible assessment results.

With regard to the above views, data from this study has revealed similar findings as illustrated by one respondent who confidently said:

...Because the longer you have been teaching you become a subject eeh... what do you call it, you become an expert in your own subject and know what is expected from the subject, unlike someone who has been teaching for a very short time and has not marked for many years (Interviewee 1, January, 2008).

Shulman (1986) reports of similar experience and further notes that experienced assessors can, in fact, make reliable judgements. This is further supported by evidence from the research diary as I observed how confident and assured the experienced examiners were. Again as an experienced examiner I reflected that I also had experience that I built up over the years that perhaps contributed to more reliable judgements. The documents analysed, especially the minutes and reports from the standardisation and moderation forums, also provide evidence that examining experience have a positive influence on how moderators manage assessment. One of the moderators highlighted the advantages when she said:

...Experienced moderators are confident and they record and interpret evidence in a standard and reproducible way (Home Economics Worksop, 2006).

This information is supported by the research diary that the researcher kept throughout this investigation as the reflective notes provided evidence that this was a confident examiner with expertise. A key observation was that with experience, the moderation of coursework becomes more mechanical and subjective.

Furthermore, as illustrated in the conceptual framework that guides this study (see Chapter 3 Section 3.7), examiners' experience is seen as an *input* that influences the implementation of an innovation in a system and therefore of significance in the way the examiners manage their role of assessing. In the current study with an aim of achieving good quality assessment, one respondent stresses this when she says:

...My experience has given me confidence to approach coursework and students' projects. I am glad when I am in the same direction with other examiners in the country (Interview5, January 2008).

This is further supported by the literature reviewed in Chapter 3, which shows that experience is a contributing factor in assessment. More experienced examiners are confident and have a high level of integrity when handling assessment. This fits in with the literature in suggesting that various factors, including the experience and skills of assessors, can influence the quality of judgements made (Clayton et al., 2001). Shulman (1986) supports contentions by Clayton et al. (2001) by emphasising that much assessment is made based on moderators' experience in their technical domain suggesting that moderators require experience in the areas in which they are assessing. This could also be interpreted to mean that moderators in addition, should have strong content background, as is the case with the moderators in this study. It must be noted that all examiners, being Home Economics experts and with the kind of experience described earlier, should be able to cite tacit knowledge about the subject that is useful during assessment (see Table 5.2).

Conversely, a study conducted by Price (2005), which examined how staff 'come to know' about assessment standards, revealed that novice examiners are more receptive to guidance on standards, are often more focused on the task and keen to get it right. This could be interpreted to mean that novice examiners, if well guided, are capable of marking just as well or even better than the experienced examiners.

In this study, a significant number of respondents view their teaching/examining experience as beneficial during assessment. The moderators cite experience gained from moderation as a source for professional judgement. One respondent stressed this by saying:

...I now have more than 10 years moderating, so I am using just my experience and sharing of information from other moderators and with that I am able to play the two roles of teacher and moderator because of experience... (Interviewee 7, January, 2008).

From the research diary notes the observation was that through the group discussions that took place during moderation that the experienced examiners worked collaboratively with the novice examiners as their mentors. This is very important in coursework assessment as one slowly develops and builds confidence in assessment as was also reflected in several of the interviews done. During my early years of moderation I also learnt from my experiences from year to year with regard to the information sharing exercises and therefore could contribute meaningfully to the discussions. This was also observed from the respondents.

Data obtained from document analysis corroborated the interview data as can be seen from the above excerpts. There is evidence that experience plays a significant role because the documents, particularly the moderation and standardisation minutes, showed concern about lack of experience and confidence by some examiners.

However, Moss (1994) warns that where confidence is high, the examiners are more likely to try to impose their own professional interpretations. This therefore means that the BEC should try to guard against that if accuracy is to be obtained and maintained. Despite this argument, many studies however still show the benefits of examiners' confidence as it contributes to high quality assessment (FEDA, 2000; Clayton et al., 2001). This was also evident during the interviews but the documents analysed did not reveal such information. My experience as an examiner for over 15 years demonstrates as I have never imposed my own professional interpretations instead I consulted other examiners when the need arose for clarity as a way of achieving consistency in assessment. This was also a trend during the moderation process that I observed where some of the moderators imposed their own professional interpretations. This however was always rectified during report back sessions done by moderators.

The data in this study, as illustrated by the above excerpts, show how teaching/examining experience is an important contributing factor in assessment. More experienced examiners benefit from this as they know the requirements and expectations and can therefore assess better, and in addition, are able to devise assessment strategies to share with the less experienced ones. It would be appropriate, therefore, for the examining body to ensure that

teachers especially gain examining experience if coursework assessment is to be dependable and credible. The issue of sub-area specialisation and examiners' preferences should be considered, as this may be a source of motivation, which is likely to improve the assessment. Also evident from the data is the fact that experienced examiners contribute significantly to coursework assessment through sharing their examining experiences with the teachers and novice examiners as suggested in the responses from the interviews.

5.4.3 Training

This section answers the research objective, which sought to investigate the training that teachers and moderators undergo to become competent examiners. Both pre and in-service training provided by the examining body is explored and discussed. The discussions attempt to capture the views of the respondents about the training they undergo, whether they value it as helpful or not in coursework assessment as a new concept in the BGCSE curricula.

Practical work in Home Economics involves process and product. The process, according to literature (Gipps (1994) is the most difficult to assess and often requires ongoing support and guidance for examiners through rigorous training. The FN training exercise involves observation of the practical activity in progress and examiners, observing students as they work, mark in groups concurrently. With regard to BGCSE Home Economics training, the study revealed that the examiners received training at national level in the form of standardisation and moderation meetings. During these training sessions marking criteria and guidelines are discussed to make sure that the examiners know what is expected of them. It must be noted that all aspects of standardisation are considered important and contribute significantly to high quality assessment, particularly co-ordination meetings and the marking scheme (Greatorex et al., 2002).

The study revealed that the examiners had mixed feelings about the benefits and duration of the standardisation. For example some feel that they have benefited but others feel that the time allowed was not adequate. One respondent has positive feelings as she said;

...I think it has benefited me a lot in the sense that I can now mark objectively (Interviewee 6, January 2008).

This is further supported by evidence from the interviews and the documents analysed as some experienced moderators highlight that the training is appropriate, but on the negative side, some moderators complain that....*This exercise is very short and a lot of information is crammed therefore the marking keys are vaguely discussed and new examiners do not benefit much* (Interviewee 1, January 2008). It seems that if the training is conducted over a relatively short period, then novice examiners find it challenging to assimilate new information, guidelines and marking keys and therefore do not derive as much benefit as they should. The reflective notes from the research diary supported this as some of the examiners could not clearly explain how they use the marking criteria to allocate marks, reasons ranged from the criteria not being clear to being ambiguous and confusing especially with the novice examiners.

A concern raised during training is that the marking criteria are vague and are continually changing. Data from the research diary and the documents analysed also supported this. As evidenced in one of the interviews when one of the respondents paused time and again and overemphasised this point but at the same time I thought from her reactions that there was something she was trying to hide with regard to this matter. One of the respondents further emphasised that:

.... *Adequate training needs to be given to moderators and during this training set proper mark allocation and criteria that should not change every year* (Interviewee 1, January 2008).

The responses suggest the need for intensive training for moderators so that they know what is expected of them. This can be achieved if marking criteria are clear and the training duration is adequate. Furthermore, this could be interpreted to mean that for criteria to remain in place and to ensure a particular level and consistency over the years when formulating criteria, it is critical to specify what the moderators are to do and to clearly define the scoring process itself.

The importance of training examiners is underlined by evidence from a study that investigated reliability of marking GCSE English (Baird et al., 2000). This study revealed that training can bring examiners' differences and leniency to an acceptable level but cannot eliminate them. Clayton et al. (2001) reports similar experiences and further describes training of assessors as

another essential component of quality assurance because the assessment process requires special expertise.

Training is an important construct for this study, as demonstrated by the conceptual framework in Chapter 3 and is highlighted *processes*. Its significant role is with the extent to which the training assists the examiners in meeting the assessment requirements. Accordingly, training of the examiners is the responsibility of the examining body. Evidence from the interviews and the documents analysed show that the examining body uses in-service workshops, standardisation, and moderation meetings to train and equip the moderators with skills to execute coursework assessment. Observations from the research diary show that very little training in the form of in-service training took place. Instead standardization and moderation meetings were used which does not provide adequate support especially to novice examiners due to time constraints as can be seen from the excerpts.

However, as data emerged from the study, evidence revealed that a significant number of the respondents revealed that not all those involved in assessment are trained. The most affected are teachers since some are new in the service and unfamiliar with the assessment system. One respondent assert that:

... Not everyone is normally invited for moderation but I think it is just taken for granted that as moderators when you go back to your schools you will take other teachers on board on whatever information you have agreed on because it is very important information to all Home Economics teachers who are marking coursework (Interviewee 7, January, 2008).

It seems that it is expected that the trained moderators will in turn become trainers by ensuring that all teachers who mark coursework have some sort of training and are given all the relevant information which will assist them in marking. Evidence from the literature also suggests that there is need to train all examiners, especially in all aspects of assessment in order to improve their assessment skills (Price, 2005).

However, despite these views, data from this study reveals that not all examiners are trained, especially teachers, and yet they are expected to produce equally credible and dependable assessment information as those trained examiners. Six of the respondents (teachers and moderators), showed dissatisfaction about training, particularly the frequency of training and suggested the need for on-going and regular training since they are not adequately prepared

for coursework assessment. Evidence from the interviews and the documents analysed show the need for extensive training especially for teachers and one concerned respondent said:

.... Yes, I think we need further training especially teachers back in schools, they are expected to mark and meet the requirements like moderators and yet they are not exposed enough. Training should emphasise professionalism, marking consistently, general approach to coursework and following guidelines (Interviewee, January 2008).

This is supported by Kneown's study (1996) which revealed that to obtain consistency between examiners there was a need to constitute a programme of training. This irregularity, as evidenced from the respondents' mixed views and illustrated by the above excerpts, was described as requiring the BEC's immediate attention if the assessment was to be consistent and credible.

The overall impression from the research findings about the training that the examiners undergo to ensure that they are competent moderators was generally described as inadequate for both teachers and moderators. Firstly, the training, especially during the standardisation exercise, is done too quickly. A lot of information is packed into the workshop within a short period and this does not benefit novice examiners, as it should. Secondly, even though literature suggests that all examiners should be trained in all aspects of assessment, as already mentioned in this study, data on the training described here ignores this, as teachers are often left out which leaves them uncertain about maintaining standards. Some important aspects of assessment such as the general approach to coursework and marking consistently are given very little attention. Thirdly, the findings show that some teachers rely on other teachers to share information with them before they can actually mark. Fourthly, some respondents showed concern about how the standardisation exercise was not beneficial to them. It seems that respondents are concerned about the short duration of the workshop in addition to the fact that the exercise is seen as subjective where information changes every year and no consistency is maintained. On the other hand, some respondents described the standardisation exercise as constructive as they gained confidence in coursework assessment generally. Finally, based on the above discussions, it can be argued that training of BGCSE Home Economics examiners is inadequate to equip examiners for quality assessment.

The data obtained from the documents analysed as well as the research journal corroborates the interview data and suggests that inadequate training is a contributing factor to uncertainty amongst the examiners, especially the teachers. More in-depth training over a longer period is recommended for both teachers and moderators to improve their assessment knowledge and skills.

5.4.4 Moderation procedures

As evidenced from the literature discussed earlier in Chapter 3, moderation is crucial as it ensures that the examiners have a common understanding about the assessment they are engaged in. Moderation is one way of providing a robust assessment for a public examination like the BGCSE. Moderation is discussed earlier in Chapter 3 which includes examiner training, giving feedback to the examiners and then standardisation. The study revealed that this procedure is compulsory for all examiners to attend the standardization meeting which entails the following; attending the practical sessions, going over paper work and eventually the moderation meeting where inconsistencies in marking are identified and rectified. One of the BEC officers confirms this by saying:

...This is done annually for all moderators before conducting the moderation to sharpen their assessment skills (Interviewee 3, January 2008).

However, data revealed that the moderators are concerned about the once-off moderation. The respondents felt they would benefit more from additional moderation meetings during the year which would over a longer period assist in developing successful moderation skills. One respondent showed concern and said:

...I am unhappy because when I started teaching there used to be many moderation workshops during the course of the year, both in-service and regional (Interviewee 4, January 2008).

Several moderation approaches, as identified in the literature discussed in Chapter 3, may be used such as expert examiners, statistical moderation, common assessment tasks, and external moderators. The data revealed that in Botswana, national moderation for practical subjects is provided by the BEC and that external moderation and expert assessors type of moderation is used as the external moderators that visit the various centres are Home Economics subject

experts who should be competent in the subject matter. This is different from other countries especially in the international world where professional assessors or private consultants conduct assessment and are also registered and accredited (Qualifications & Curriculum Authority, 2006). The BGCSE, as a ‘high stakes’ assessment, serves a purpose in determining university eligibility, therefore formal moderation procedures are mandatory at this level. The nature of Home Economics as a practical subject requires a high degree of practical activities, and this makes teacher assessment of the practical skills compulsory and thus a vital component of the BGCSE examinations.

BGCSE moderation, as revealed by the data, entails firstly, recruiting and inviting teachers across the country who are subject experts to the standardisation meeting. Secondly, the moderators then undergo training in the form of standardisation meetings, where the moderators discuss and mark samples of student work as per assigned Home Economics subject areas. It seems that those examiners who fail to attend the standardization meeting are disqualified from moderating. Reflective notes from the research diary show that the BEC takes strict measures for those examiners who fail to attend the standardization meetings as they are disqualified from marking.

The data provided by both teachers and moderators revealed that samples of student work are marked and discussed to help the examiners understand the mark scheme as well as to agree on a common understanding of standards set. Thirdly, the moderators’ visits to the various centres to which they are assigned commences. Here the moderators are expected, as is procedure, to moderate teachers’ assessment accordingly by either adjusting the marks or asking teachers to remark. Finally, the moderators attend the moderation meeting where they report their particular centre’s moderation findings to the group. Where there is evidence that the standards are not in line with the set standards, moderators are asked to revisit their work and adjust as per suggestions from the group.

The data revealed that these procedures are the consensus type of moderation discussed earlier in Chapter 3, which as Maxwell (2007c) has observed, strengthens the validity and reliability of the assessment. The study shows that the respondents value and understand the procedures employed by the BEC as the process has a developmental effect on them as moderators, as one respondent illustrated that:

....I think I have developed, as I am able to play the role of teacher and moderator to my students because they show us the details of moderation during the standardisation meeting. (Interviewee 8, January 2008).

I observed the experienced examiners obtained detailed information during standardization meeting as they are adding to information they already had built up from previous years. It appeared that novice moderators relied heavily on the patience of those sharing the information.

The above views were supported by the availability of copies of the moderation and standardisation minutes and reports that were analysed in this study. Data from the documents analysed provided evidence that the moderators benefit from the detailed small group discussions after observing the students perform their practical work in FN in particular. The literature discussed in Chapter 3 also supports this as good practice. My observation is that since the discussions are done in small groups every examiner is taken aboard and especially those who have interest in the component they are examining will easily achieve consistency.

In addition, one other respondent remarked that:

.....I think it has benefited me a lot in the sense that I know how to mark objectively and I think it has raised my standards of marking as a teacher (Interviewee 5, January 2008).

From the above excerpts, it can be argued that some aspects of moderation do serve the intended purpose as the interviews revealed that it helps the examiners to develop objectivity, maintain consistency as well as promote general professional development. However, the data on the other hand also revealed that some moderators might have not benefited from the moderation exercise especially those doing it for the first time and may differ in the moderation, particularly that the observation I made was that marking guidelines seem to be ambiguous therefore resulting in moderation being subjective. One respondent was concerned that:

....The moderation exercise is not effective because it is subjective; projects that are quality to me may not be necessary quality to the next moderator (Interviewee 1, January 2008).

This response somehow implies the challenges of standards and quality of the marking criteria that the BEC may be facing with the moderation of Home Economics coursework. In this case it may be concluded that some moderators are struggling to allocate marks using the criteria provided. Therefore, there is need for an intensive moderation exercise if credibility and clarity are to be obtained. The expectations are that marking criteria should be clear and easy to use so as to guide the moderators towards achieving quality assessment.

Several factors may be attributed to the challenges experienced during moderation as it seems that some respondents say the guidelines are not clear or because the criteria change repeatedly, the moderators do not really become familiar with them. Data from the interviews and documents analysed substantiated the above response that the marking criteria and guidelines were ambiguous and not user friendly for the new moderators.

The data also revealed another irregularity during moderation of coursework as lack of checking, monitoring and support of the examiners by BEC officers. This, therefore, left many of the respondents wondering about the overall credibility and the accountability of the examinations BEC is responsible for. One of the respondents said in a sarcastic tone:

...I do not think they check. You know a situation where people act to be busy all the time; they do not even see it as an ill practice. They do not check if moderators have done a good job (Interviewee 7, January 2008).

The data obtained from the documents corroborated the interview data in that there was no evidence in the form of reports or minutes of either the standardisation or the moderation meetings with regard to this. Further evidence about the lack of monitoring and checking of moderators during the moderation exercise by the BEC became evident when one of the respondents confirms this by saying:

...I actually check by browsing through each moderator's work but preparations are on the way by BEC to upgrade some senior moderators to principal examiners so that they will do the checking (Interviewee 8, January 2008).

Preparations by BEC to ensure monitoring being on the way could mean that the council is aware of this irregularity even though the respondent appeared hesitant to talk about the matter.

From the above excerpts, it is evident that guidance, support, monitoring and accountability are aspects that need to be improved by the examining body if quality in assessment is to be achieved.

Even though feedback is important as a way of changing and improving examiners' assessment practices, data from this study revealed that feedback was not given at all to the examiners with regard to the results of the moderation. A study by Wigglesworth (1993) showed that feedback is essential in improving examiners' consistency and bias. Therefore, lack of feedback, either oral or written to the examiners, makes it difficult for them to improve on the way they moderate as one concerned respondent said:

....There is nobody checking and giving feedback to the moderators (Interviewee 2, January 2008).

The research diary supported these findings, as there was no form of documented evidence from either the moderators or the examining body. Furthermore, I observed that some examiners who were willing to do a good job got discouraged as the processes followed by other examiners and emphasis on the consistency of marks differed. This compromises quality of assessment. The interview data further provided evidence that even though moderators submitted reports to the BEC on completion of the moderation exercise, no feedback was given to the actual moderators due to the absence of personnel and tight moderation timelines primarily because *...There is one subject officer for all the three sub-areas and she cannot check and give feedback to all the moderators (Interviewee 1, January 2008).* The above views suggest the need for the BEC to engage more subject officers as team leaders, as the one officer cannot handle the workload. The importance of feedback is emphasised by Greatorex et al., (2002) who has observed that if examiners are given feedback they are likely to improve the way they assess.

It can therefore be concluded that the examiners value the moderation process as they see its importance in their professional development, confidence building and the experience sharing aspect of this procedure. The respondents consider all aspects of the moderation, especially

the standardisation exercise, important particularly the mark scheme and the co-ordination meeting. This further illustrates that the levels of attainment required to gain marks are communicated during the discussions so this contributes towards ensuring that the examiners are confident and competent to assess the coursework.

From the discussions, there is also evidence that the examiners are unhappy about the support, the guidance given and the monitoring done by the examining body. The BEC provides support by training the examiners and developing guidelines for use during marking. The moderators feel lack of support and guidance from the BEC is an irregularity that discourages them, and could be contributing towards inconsistencies in marking as there is no accountability at all. It must be noted here that the BEC expects schools to support and monitor the assessment exercise especially the internal one, as illustrated in the conceptual framework in Chapter 3.

5.4.5 Quality control mechanisms

In practice, the role of the examining body such as the BEC is envisaged as one of ensuring that the quality control process is in place. The main purpose of these mechanisms is checking whether the set criteria have indeed been applied (Pring, 2000). It is therefore important for the BEC to introduce strong measures for the monitoring and supervision of examinations as a way to detect flaws and ensure quality in the assessment.

Findings from this study on quality control mechanisms show that most of the respondents are aware of the quality control mechanisms as reflected in the research diary. It however, seems that the work load experienced by teachers makes them work under pressure and therefore disregard the mechanisms in place. One respondent illustrated by one respondent who confidently remarks that:

...I would say the standardisation process is one of the quality control mechanisms and the reporting back after moderation. (Interviewee 1, January 2008).

However, one respondent did not seem sure about what quality assurance mechanisms were in place and said:

I suppose they are standardisation and maybe moderation but I may be wrong (Interviewee 2, January 2008).

Data from this study have revealed both positive and negative views from the respondents with regard to the effectiveness and adherence to the quality control mechanisms set up for the BGCSE Home Economics coursework. The respondents generally viewed the existing mechanisms as having limited effectiveness as one respondent said:

.....I doubt if the mechanisms are effective because I said there is lack of accountability on the part of the examination council. When you bring in the marks you do not account for them (Interviewee 7, January 2008).

It was noted in the research diary that this examiner was frustrated and clearly emotional over the issue of accountability by the BEC. This shows that those moderators who have interest in assessment were unhappy. Perhaps the unhappiness might be a reflection of the lack of manpower as there is one officer for all the three Home Economics areas and with tight schedules attached to all three.

Another respondent, who was doubtful and concerned that the mechanisms may not be effective, said that:

... The mechanisms are not as effective. They are effective to some extent, as there are guidelines provided, but BEC does not ensure that we award objective marks (Interviewee 5, January 2008).

The observation is that some of the examiners may not be adhering to the quality control mechanisms intentionally as they know that they do not account for their marking nor does BEC monitor the assessment.

These excerpts suggest that the quality control mechanisms in place could be more effective if the BEC was to monitor and check if moderators do adhere to them. It is possible that the moderators fail to adhere to the quality control mechanisms as there is little evidence of accountability. It must be noted that quality control needs constant monitoring (QCA, 2005) and in this study, quality control seems to be unsatisfactory and as a result, does little to enhance objectivity and consistency.

On the other hand, some respondents were happy with the effectiveness of the quality control mechanisms as one respondent said with some uncertainty:

....Yes the quality control mechanisms are effective. But the problem is overseeing if things are done properly (Interviewee 2, January 2008).

However, both the BEC officers had different views from those of the moderators and teachers as they were sure that the mechanisms contribute to objective and consistent assessment information. One of these respondents says with confidence that:

...It is quite credible because we do visitations to schools, you do see the candidate's projects and you feel that a lot of them are up to the standard. (Interviewee 8, January 2008).

My observation was that some of the officers were knowledgeable about examinations in general and not Home Economics and both of them were overwhelmed with work as supported by the context during the interviews.

It must however be noted that there are no previous studies similar to this one in Botswana to allow comparison of the results.

5.4.5.1 Support strategies for the moderators

The support strategies for coursework moderation often include training and written materials to guide the assessment. The study shows that examiners support is inadequate and this may contribute to lack of understanding of the principles of assessment that are emphasised and recognised (QCA, 2005). It is essential that examiners support and guidance is ongoing to enable them to approach the new assessment system in a positive manner. This research found that all the respondents complained about support and guidance declaring that it was inadequate as one of the respondents expressed unhappiness and said:

...I think to some extent we get support, even though it is not enough (Interviewee 4, January 2008).

In addition, one respondent who thought that they do not get support due to tight schedules during standardisation said:

...I would not say there is a lot of support because of the time constraints of standardisation (Interviewee 1, January 2008).

The responses suggest the need for extended and continued support and guidance by the examining body. Evidence shows that the examiners are somehow unhappy and discouraged as they feel that they only get support and guidance when there is a change in the assessment system.

5.4.5.2 Challenges faced by Home Economics examiners during assessment of Coursework

This section attempts to identify challenges that the examiners may be facing during assessment of coursework and if these could somehow be contributing inconsistencies in marking.

This study showed that respondents were generally unhappy about the moderation exercise as evidence shows that some respondents have difficulties with marking coursework even after the mandatory co-ordination meetings. From my observation I agree that the moderators are unhappy as during some of the interviews I could see the frustrations on their faces when they talked about moderation being subjective, too short and furthermore, the moderators continued overemphasising as they talked about this matter. The moderators feel that even though the moderation exercise is designed to equip them with knowledge and skills to examine, they still feel that they are not really competent in allocating marks and making good judgments of assessment.

One of the moderators highlights her frustration and said:

..... Marking is subjective if my comments are going to be positive for example and say the product is excellent somebody else may see the product just as fair (Interviewee 1, January 2008).

In addition, one of the teachers who has been marking for only a few years and sounded discouraged also said:

...It is not an easy exercise, we struggle to allocate marks that is why I think regular and intensive training is necessary (Interviewee 6, January 2008).

The concerns about struggling to mark coursework were common amongst both external moderators and teachers. The data was similar to data revealed by documents analysed, as the examiners in general felt that the marking was not objective. The data further revealed that both parties did not trust each other with marking. Teachers feel that some of the moderators are incompetent and so do the moderators as the teachers say that there are often inconsistencies amongst the moderators themselves. However, the inability of the examiners to mark objectively may be attributed partly to inadequate training and to some extent the examiners' attitude especially teachers who repeatedly complain about the workload. As a result, they feel only external moderators should assess coursework, which further shows their lack of understanding about SBA assessment. My observation is that some teachers do not want to assess coursework due to the high work load and lack of interest.

The examiners' attitudes towards coursework assessment in this study could be linked to an observation made by QCA (2005) where teachers have become involved in the use of examining coursework and where that has been imposed from outside, their attitudes change and they often become less clear and less supportive. Data from the interviews revealed this. These views are suggesting a serious discrepancy in the overall moderation that the BEC should address immediately if the quality of the assessment is to improve.

Data from this study also revealed that one of the challenges that the examiners face is the struggle to separate the dual role of teacher and moderator and take an objective view when assessing.

...You can separate the two, but it is very difficult, as a teacher I will be marking the same students that I have taught at the same time the moderator (Interviewee 1, January 2008).

These views may suggest why teachers tend to be lenient with the result that inconsistencies are reflected in their assessment. Some teachers stated that they tend to mark students the way they have taught them therefore even if a student has produced a piece of work that does not meet the set requirements, they still may award high marks as they cannot fail the students they have taught. Some of the reasons are partly because they have to account for their

decisions and if the students fail, it means the teacher has also failed. Strict measures have to be taken for such teachers as they do not give a good impression about the teaching profession and the assessment we make can not be trusted by the public.

This study also revealed that often teachers in some centres fail to complete the internal marking within the set deadlines, resulting in moderators marking under pressure. This somehow compromises quality of the marking and becomes a serious challenge for the BEC. My observation is that, that is why the BEC officers talked of moderators being withdrawn from marking but partly my observation is that some teachers do not have the interest required. However, one of BEC's officers explained that:

...This is a challenge for the council because such moderators take longer than they should and the delays are cost implications (Interviewee 8, January 2008).

Interestingly the officer only brings in the cost implications. My observation from the research diary was that the respondent does not work in the field of Home Economics and therefore only looks at certain issues from a general point of view.

Some respondents felt that the workload makes it difficult for them to complete their internal marking before they begin the moderation. This failure of centres to adhere to deadlines is disturbing, as highlighted by some of the teachers, as it has an effect on the moderation process.. One of the respondents stated that:

...All the coursework is moderated at the same time, and then teaching more than one sub-area means more marking. There is a lot of work, which means by the time you moderate other centres you are already overstretched (Interviewee 1, January 2008).

One of the respondents passed an interesting remark with regard to the workload as examiners and their reluctance to become involved in moderation. She states:

....Last year a lot of moderators turned down invitations at national level because they were unable to complete their internal marking (Interviewee 1, January 2008).

As a result of the above sentiment, the lack of available moderators could compromise the moderation process. This study thus shows that problems could arise because if moderators do not arrive to participate in external moderation, the team will then be made up of more inexperienced moderators who may not mark correctly, accurately or objectively, as they are unfamiliar with the procedures and lack knowledge, skills and expertise.

The study has also revealed both positives and negatives from the respondents with regard to monitoring of the quality control mechanisms by the BEC. Findings show that respondents valued and understood the purpose of the various mechanisms. However, many of them raised concerns about the BEC's inadequate monitoring of the mechanisms. This was evident when one of the respondents remarked that:

...I am not sure if BEC does monitor if the QCM are functional. I have never seen them monitor or check if work is done well (Interviewee 6, January 2008).

If monitoring is not done, it means the procedures may not contribute to a credible assessment; furthermore, this could compromise the quality of the assessment. The second respondent confirms lack of monitoring when she said that:

...No body checks or monitors, BEC just relies on the moderator's marks (Interviewee 2, January 2008).

One of BEC officers however felt that if the examiners have not marked to the required standards, this is detected and minimized during grade and grade review as she confidently states that:

...The quality of the results shows if the examiners were lenient or not and if so, some necessary measures are employed like grading and grade review (Interviewee 8, January 2008).

Some of the above concerns could be minimised through regular and extensive training, but this study revealed that training for moderation is at present inadequate and as such results are not of the expected standard. It can be concluded that there is generally no close supervision by the BEC of the moderation process using the procedures and practices currently in place.

From the discussions of these findings, it is evident that firstly, all the examiners are aware of the mechanisms put in place towards improving the quality of the assessment. The examiners try their best to adhere to them but find it difficult and discouraging if the BEC does not seem to support that effort. Secondly, there is evidence of quite a number of the mechanisms such as standardisation, moderation, double marking here and there, grading and grade review being used in the process as already discussed in Chapter 3. However, from the respondents' views, it seems that there is a lack of monitoring by the BEC as well as accountability of the examiners as evidenced by the various excerpts, as no checking goes on during the moderation exercise.

5.4.6 Reliability of the assessment

If coursework assessment is to be used for certification, as seen in the present study, it needs to display an adequate level of reliability. Reliability is concerned with how accurate the assessment is in assessing the competence/proficiency/ability of the student (Gipps, 1994). The discussions focus on the reliability of the coursework assessment in this study by examining the data carefully to see possible reasons for the inconsistencies between examiners' marks as well as ways in which reliability is achieved during marking.

Research shows that coursework assessment poses many challenges, including attaining acceptable reliable judgements (Gipps, 1994). Reliability and quality of assessment are important notions in all education systems, as evidenced from the literature discussed in Chapter 3, which emphasises the need to have a system of checks and balances in place to justify assessment decisions (Clayton et al., 2001).

As illustrated in the conceptual framework (see Chapter 3 Section 3.7), that guides this study, internal and external assessment as *processes* in a system should result in *outputs* in the context of this study, which particularly illustrate consistency of standards and the production of reliable marks. However, the findings of this study show that this is only achieved to a certain extent particularly as examiners, teachers and moderators are not happy about the inconsistency of marks. Consistency as Maxwell (2007c) views it, is concerned with assessors having a common understanding of common standards. For this study, the concerns arise mainly with the unreliability and inconsistency between the internal and external assessment due to multiple examiners involved with teachers who are central to the assessment process.

Consistent with these views is Moss (1994) who refers to the irregularity of inconsistencies in school-based assessment as a puzzle needing to be solved. He explains that it is only those involved in assessment who can solve the puzzle, as they have access to the relevant information. For instance, in the case of this study, teachers, moderators and the examining body need to ensure that the puzzle is solved by drawing on several approaches, as suggested in research (Harlen, 1994). Such approaches should involve ensuring that in-depth, continuous training for teachers, examiners and moderators is conducted, that professional expertise is developed, that standards and criteria are established and then are adhered to, that examining and moderating strategies are employed which would then ensure a good quality assessment which is reliable. This idea is reinforced by Harlen (1994) who emphasises that the solution to the assessment puzzle is the use of the moderation process together with training and the setting of clear criteria.

As mentioned earlier in this section, the findings show that the examiners have doubts about the quality of the assessment. This could be attributed to the fact that the examining body seems to have difficulties in implementing quality control strategies effectively. The examiners reported their concerns about the inconsistencies between the internal and external assessment of the coursework. A significant number of respondents expressed their alarm about this inconsistency and hinted the idea that control strategies need to be put in place and be maintained. This was evident when one of the moderators remarked that:

...I have realized that when the moderators are there the marks will be consistent, but as soon as the moderator leaves the marks start to escalate, which means teachers are now favouring their students. They seem not to follow the guidelines. However, it is not all schools; it is only some schools but most schools (Interviewee 4, January 2008).

There seems to be a problem with regard to variations of marks. Responses from the examiners support the literature review as experienced by some researchers that no matter how carefully thought out the assessment principles are, there is still the probability of different interpretations from teachers in their own contexts therefore the need for moderation (Radnor, 1993).

Such inconsistencies could be because teachers interpreted guidelines differently and which result in various levels of leniency and severity. Additionally, Good (1988) reveals that teachers are liable to be more generous than moderators. He further advises that the differences in standards associated with school-based assessment should not be considered major difficulties, as they support the views that adjustments often have to be made to ensure reliability of assessment. This is the vital role that moderators are expected to play using the moderation strategies in place.

It seems that respondents find difficulty in separating their dual role as teacher and examiner, which they regard as a challenge in assessment. However, some of the respondents indicate that though it is difficult, they endeavour to be as objective as possible; however, consistency in marking is not always achieved. This is evident when one of the respondents stated that:

.....You can separate the two but it is difficult, as teachers and moderators you are marking the same students you have taught at the same time as a moderator (Interviewee 1, January 2008).

The irregularities do occur seems to be attributed to inadequate training for both teachers and moderators as illustrated by the following excerpt:

...The examining body is aware of these inconsistencies. These are points that are usually raised during standardisation and moderation meetings that training is inadequate for both teachers and moderators. The reason is that teachers and moderators' marks usually show a vast difference forcing the moderators to go back and remark, this shows there is little training for schools and probably for some moderators (Interviewee 1, January, 2008).

Once again lack of training is highlighted as data reveal that not all examiners have undergone training, in particular teachers, and yet they are expected to produce credible and dependable assessment information in line with that of trained examiners. The literature, as previously discussed, has reinforced the fact that for assessment to be conducted effectively and reliably, training is important. This is supported by the reflections from the research diary when the examiners generally described training as inadequate.

Contrary to the above excerpts, some respondents find the marks quite dependable especially after the examiners and moderators have gone through the exercise of sharing the interpretations of the criteria as a team; however, there is a move by the BEC to seek improved strategies of moderation. This is evident when an officer from the BEC says:

.....So the exercise (moderation) to us is quite credible and dependable and we are anxious to find if there are ways of doing it better we are doing so as to minimize the inconsistencies (Interviewee 3, January 2008).

From the above responses, it can be concluded that firstly, there is evidence that quite a number of examiners are not able to separate the dual role they play as teacher and moderator and develop objectivity. Secondly, it seems that some examiners use other factors such as students' attitudes towards coursework or students' performance in the subject as a whole, which are outside the marking criteria when they assess, especially during school-based assessment. Thirdly, when there is evidence of varying standards, the examining body does take corrective measures, which sometimes results in discontinuation of the examiners from the moderation exercise as a way to achieve quality in assessment. However, some examiners who are working effectively have suggested that they would like to develop their practice and find ways in which to conduct assessment in an improved manner. Lastly, the examiners feel the inconsistencies are due to lack of training and monitoring.

5.5 SUMMARY

From the discussions of the findings of this study, it is evident that the BGCSE Home Economics coursework assessment is not as credible or reliable as expected. The following areas of the moderation exercise are of concern as illustrated by several respondents. Firstly, even though the BGCSE uses a dual method of moderation, that is the statistical and the inspection for moderation of scores of different centres, the examiners are still concerned about the reliability of this assessment scheme. This is confirmed by the significant variations between the examiners' marks. Use of the double marking process that centres use in order to reduce the said variations is not always a feasible option due to time constraints and teacher workloads. They, therefore, view the new assessment scheme as additional work imposed on them by the authorities, together with inadequate training and development of skills and support. Secondly, the findings imply the need to empower both teachers and moderators, giving them more opportunities to develop the 'know how' (skills and knowledge) for

marking coursework especially where they play a dual role as teacher and examiner. This dual role seems to have placed new responsibilities on teachers and therefore poses a number of challenges including teachers' lack of expertise and confidence in using the new assessment system. Cost and time were perceived as limiting factors with regard to duration and frequency of training. Lastly, an overall impression gained from this study, which I had not anticipated, is the respondents' desire for professional training in order to equip both teachers and novice moderators particularly, with skills in coursework assessment with the aim to minimize the variations of marks between the examiners. The results indicate that there is a strong demand for the provision of clearly defined supporting guidelines and the organization of regular and ongoing training workshops and experience-sharing sessions.

The next chapter presents the conclusions and recommendations based on the research findings.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The purpose of this chapter is to discuss the findings of the study in light of the research questions identified in Chapter 1. The chapter is structured in the following way: Section 6.1 is an introduction to the chapter. A summary of the research design is provided in Section 6.2. Section 6.3 summarizes the findings of the study according to the research questions. Reflections of the methodology and limitations are discussed in Section 6.4. Section 6.5 reflects on the conceptual framework. Recommendations are outlined in Section 6.6. Finally, Section 6.7 concludes this study.

6.2 SUMMARY OF RESEARCH DESIGN

The research design for this study has been discussed in detail earlier in Chapter 4. This section provides a brief summary of the research design as well as reflections on its appropriateness in this study.

The aim of this research was to explore how examiners achieve and maintain high quality assessment during marking and moderation of BGCSE Home Economics coursework. The BGCSE curriculum, which is based on the format of the British GCSE, was introduced at senior secondary level in 2000 as mentioned earlier. One of the Home Economics sub-areas, which is the focus of this study, was amongst those subjects that were introduced during that first stage of implementation. Home Economics, as one of the optional subjects, introduced continuous assessment, a form of school-based assessment as per the requirements of the Curriculum Blue Print. This change in the public examination structure for senior secondary schooling in Botswana and in the international world like the UK and Australia marks a shift from a focus on the external examination to the use of both external and school-based assessment (Yung, 2001; Timmins, 2004). The new assessment system seems to have brought along with it responsibilities for Home Economics teachers, who now assume the dual role of teacher and examiner. According to Yung, (2001) and Gipps (1994), changes like the one on which this study is based, where teachers play a dual role, may sometimes be problematic or even personally threatening. They, therefore, suggest that such an innovation demands a reformulation of the teacher's role as teacher and examiner. It is against such a background

that this study was initiated in 2007 and the following objectives were set to help achieve its intentions:

- To determine the content knowledge of Home Economics as a school subject.
- To investigate training that teachers and moderators undergo to become competent examiners.
- To explore the quality control mechanisms in assessment of HE coursework, and what the BEC does to ensure that they are adhered to.
- To establish the extent to which the quality control mechanisms in place minimize the variations between teachers'; and moderators' marks.

Therefore, in order to explore the above-mentioned objectives and answer the research questions, a qualitative research approach was utilized with emphasis on the interpretive paradigm. The theoretical assumptions of the interpretive paradigm is based on the notion that social reality is created and sustained through experience of people involved in communication (Yin, 2003; Merriam, 1988; Cohen et al., 2000). The interpretive paradigm was incorporated to best link the methodology with the research questions as evidence shows that qualitative researchers utilise the interpretive approach because it uses the data to pose and resolve research questions.

Qualitative research allowed for in-depth study of coursework assessment, allowing me to understand the nature and the complexity of the processes taking place. Yin (2003b) and Merriam (1988) in emphasising the usefulness of qualitative research argue that it is characterised firstly, by the detailed observation of, and involvement of the researcher in the natural setting in which the study occurs, and secondly, the attempt to avoid prior commitment to theoretical constructs before gathering the data. For the current study, my involvement was an attempt to understand the way the respondents conceptualise and understand the assessment in which they are involved. This was achieved through the use of interviews conducted in the respondents' natural settings as well as analysis of pertinent documents and the field notes recorded in a research diary used as descriptions of all the data collected.

Extending the fundamental beliefs of the interpretive approach, it is worth mentioning that its aim in this study was to “determine what an experience means for those who have had the experience and are able to provide a comprehensive description of it” (Seval, 2004, p. 562). This would be interpreted to mean that I was interested in understanding ways in which the respondents experienced coursework assessment.

The use of a case study research design and multiple use of evidence with semi-structured interviews, document analysis and the research journal, allowed me, as researcher, to understand the nature and complexity of assessment (Yin, 2003b).

To sum up, I would argue that employing the qualitative approach in this study was appropriate, as I was finally able to describe the respondents’ perceptions accurately and thoroughly as I was engaged in actual interactions with them. Therefore, the respondents provided open-ended answers as they operated in their natural organisational settings which allowed me to discover new themes and interpretations of coursework assessment.

6.2.1 Sample

Exploring how examiners achieve high quality assessment during marking and moderation of Home Economics coursework included field research in Botswana. The participants in this study were three teachers, three moderators and two subject officers with the examinations council with seven of them being female and one male. I purposively sampled the respondents on the basis of their involvement and experience with coursework assessment and their willingness to participate in this study as already discussed in depth in Chapter 4 Section 4.6.1. Teaching experience ranged from 5 to 20 years while examining experience ranged from 1 to 16 years. More demographic characteristics of the respondents are illustrated in Table 5.1.

6.2.2 Data collection instruments

Data collection instruments used to gather information for this study were semi-structured interviews and document analysis as already discussed in detail in Chapter 4 Section 4.6.2. I administered a set of three separate semi-structured individual interviews with the respondents. The goal of the interviews was to obtain information on how the examiners assess coursework. Utilisation of the interviews allowed me to develop a more holistic picture of the nature of coursework assessment (Mertens, 1998). This was achieved through the semi-

structured interviews as the respondents were able to provide specific examples that supported their views for and against certain processes used for examining and moderating during course-based assessment to achieve consistency and reliability in coursework assessment. In comparison to other instruments in qualitative research, semi-structured interviews are particularly useful firstly, in yielding contextually rich information about the topic of inquiry in an efficient manner (Fraenkel & Wallen, 2000), which I attempted to achieve in this study through the probing process. Secondly, the semi-structured interviews provided access to gather experience and interaction with the respondents on topics that were difficult to observe for confidentiality purposes. The flexible approach I adopted also allowed the respondents to express their individual experiences as freely as possible. Thirdly, the questions posed to the respondents were open-ended in nature which Cohen et al., (2000) argue allows the respondents to address the issues from the various points of views and dimensions. I constructed interview guides which consisted of a varying number of questions for the respondents (see Appendices D, E and F). These interview guides contributed to success during interviewing in making sure that I focused on the main points and that relevant questions were asked. Therefore, being consistent with the above-mentioned authors, individual semi-structured interviews were selected as a main instrument to collect data for this study due to its advantages related to the nature of this study. Prior to the start of the interviews, I discussed the respondents' willingness to participate and their intention to contribute time and input in this study. They were also informed that any findings arising out of the interviews would be kept in complete confidentiality as discussed in detail in Chapter 4 Section 4.6.5 and Appendix I.

Additionally, the field notes recorded in the research diary and analysed documents provided more useful information through corroboration as I was able to increase my understanding and the credibility of the findings. The main aim of the research diary which I compiled by making brief notes was to ensure that the reader is fully enlightened about the research process (Fraenkel & Wallen, 2005). I took brief notes about the respondents' educational settings, mainly school offices, as I interviewed them. The brief notes consist of a description of the respondents' physical settings which provided the context of the study and generally what I thought about the interviews.

The documents, used to gather data for this study as discussed earlier in Chapter 4, were official type of documents, which included minutes from Home Economics standardization

and moderation meetings, as well as policy documents. These documents and the research journal were used to support and substantiate the interviews conducted with the respondents.

6.2.3 Data analysis

The purpose of this study was to explore how the examiners achieve and maintain high quality assessment during marking and moderation of Home Economics coursework. Therefore, content analysis was used as it allowed me to use the respondents' experience to identify similarities and differences about coursework assessment. For this study, I used a manual analysis of data. This further incorporated the inductive content analysis approach which ensures that there is no predetermined theory, structure or framework. This was appropriate since it is comprehensive on the one hand, even though time consuming on the other hand, but was useful in this case as I was able to establish how and why the process that takes place during assessment occurs (Cohen et al., 2000; Pring 2000). This was achieved through reading the transcripts several times, coding the transcripts into categories and then coding into sub-categories and then eventually using the categories to determine themes as illustrated in Table 4.4 of this study.

Furthermore, I examined the linkages between themes and categories and through this; I gained understanding about coursework assessment which influenced the analysis. Finally, I grouped similar perceptions together, that is employing 'constant comparison' which literature recommends as it helps in the identification of emerging themes in constant search for extracting meaning from the themes (Burnard, Gill, Stewart, Treasure & Chadwick, 2008; Berg, 1978; Miles & Huberman, 1994). As already discussed in Chapter 4 and 5 of this report, five categories and five themes were derived from the analysis of the interviews and these were finally discussed and described with the help of quotations from the raw data in Chapter 5. Of significance, with presenting the data collected in this study is the fact that I used descriptive and interpretive reporting methods (Mertens, 1998) in order to improve the readability.

6.3 SUMMARY OF THE MAIN FINDINGS ACCORDING TO THE RESEARCH QUESTION

This section presents and discusses the main findings of this study which are divided into primary areas of research as indicated by the research questions in Chapter 1 Section 1.8.

These findings are further compared with results of other similar studies and the literature reviewed in Chapter 3.

6.3.1 How are teachers and moderators trained to equip them as competent examiners?

The question aimed to explore what kind of training examiners undergo to prepare them for the assessment process. As can be seen from the statement of the problem mentioned earlier in Chapter 1 of this study, significant concerns were highlighted about inadequate training for the examiners. As is procedure in many education systems, the responsibility for the quality of training lies primarily with the provider of the qualification, who for this study is the examining body. There is a growing body of evidence that training gives the examiners the opportunity to familiarize themselves with the assessment system especially where it is new and likely to bring challenges and uncertainties. Support of examiners through training has been identified by research (Clarke & Gipps, 2000; Radnor, 1993; Shulman, 1986) as one of the underlying factors contributing towards their competence and confidence in handling assessment. This argument, therefore, suggests that the BEC, like other examining bodies, provides and ensures rigorous training, particularly as Stobart (2004) is of the opinion that teachers and examiners may change their assessment practices if professional development and support is provided.

The findings of this study revealed that examiners, both teachers and moderators, are dissatisfied with training. Teachers feel that some moderators are not competent enough as they lack examining skills; while alternatively, moderators argue that teachers do not seem to be clear on what is expected of them in coursework assessment resulting in a conflict between teachers and moderators. It is suggested that the solution is training and support on how to conduct assessment as the findings for this study, with regard to training, parallels other international studies (ASF, 2005).

Further evidence emerging from the interviews, document analysis and the research journal also shows that examiners are unhappy with assessment. Earlier studies also pointed out similarities and concern with the support provided by the examining body. It seems that there is little official support in general, in terms of information needed to address issues which arise during assessment. For example, Utlwang and Mugabe's (2004) study which focused on use of coursework at both JCE (Junior Secondary Education) and BGCSE level, revealed that training was necessary for all teachers of practical subjects whether they are external

moderators or not. The findings further indicate that training of teachers, to prepare them as competent examiners, appeared a great challenge for the BEC. Even though attempts had been made to provide rigorous training in order to improve examiners' assessment skills as per recommendations by RNPE, this was not very practical in terms of costs and the fact that new teachers keep on joining the profession. These findings are also supported by Cheung and Yip's study (2005) that revealed the lack of support to teachers in the implementation of a similar scheme in Hong Kong. Literature suggests several types of support, which includes training for the development of skills to assess, in-service workshops and clearly written guidelines. Furthermore, Clayton et al., (2001) suggests that use of these types of support is helpful particularly for novice teachers. Data from this study reveals that the above-mentioned types of support are commonly used, however, the examiners describe the support as inadequate in terms of duration and frequency and therefore are of little use and value as it does not address the issues which arise in assessment.

The data on training from the literature reviewed and this study substantiates itself with the conceptual framework. To ensure that the examiners are competent and confident there is need for support from the *context* (examining body and at centre level) as the key construct at the *inputs* level. Furthermore, training, as at *processes* level illustrated as an important construct in the conceptual framework, helps to empower the examiners. This is done through provision of workshops, experience sharing and standardisation. The relevance of training for examiners was emphasised in this study. However, in this study the kind of training was described as inadequate. As a rule, the examiners are concerned about the training in terms of frequency and duration but from the findings, it can be inferred that inadequate training is attributed to cost and time as the limiting factors. However, training of examiners can be complex, as they require training in the subject areas in which they are assessing (Shulman, 1986) and this needs to be taken into consideration.

Shulman (1986) identified three categories of content knowledge, namely subject matter, pedagogical content knowledge and curricular content knowledge. Training offered to the examiners in this study appears to be strong on subject matter knowledge, as they are all qualified and experts in the subject. However, pedagogical content knowledge may be lacking, as it is associated with teachers' beliefs and practices that could be attributed to some of the irregularities evidenced in this assessment scheme. Curricular content knowledge is also an important aspect in assessment since it is an intrinsic part of the curriculum and if the

teachers and examiners do not understand the concept of assessment and its relevance in teaching and learning, their knowledge of the curriculum may be limited.

The findings of this study reveal that the examiners seem ill prepared for the assessment. Nevertheless, in instances where assessment is ‘high stakes’ it is a requirement that examiners are trained, professional development is encouraged and support is provided (Stobart, 2004). This should ensure that the marking of coursework improves and maintains the consistency of the individual examiners (Lunz, 1990). In addition, in assessment where teachers play a major role, policy and practice in assessment needs to be developed. It is important that when changes are made in assessment practices, time is allowed for teachers and all those involved in assessment, to acquaint themselves with unfamiliar procedures. It seems that procedures such as school-based assessment show that the main recommendations from RNPE (1994) that “teachers should be given adequate training to handle continuous assessment” (RNPE, 1994, p. 23), are not met. Some of the implications from this evidence are:

- Ensure that all teachers receive adequate training, not just those involved in moderation, for instance, be part in regular meetings where assessment is planned and assessment documents and policies be regularly reviewed. Emphasising the importance of training for all teachers it is worth mentioning the fact that teaching and assessment go hand in hand and therefore, one cannot plan and teach without knowing the outcomes or objectives that are to be assessed.
- Ensure that teachers particularly have protected time for assessing of students’ work, especially the novice teachers and moderators. Mentoring and experience sharing between the more experienced and the less experienced teachers/moderators are an important exercise through which training could be achieved.
- Ensure that responsibility for internal moderation is clearly assigned.

To sum up, one would argue that inadequate support and training, revealed in this study, could be a contributing factor to the variations of marks between teachers and moderators. Overall, inadequate training in this study is likely to negatively affect the assessment process as the examiners are not well-equipped to conduct an objective assessment which informs teaching and learning.

6.3.2 How is quality assured during marking of coursework?

This question aimed at investigating how quality is assured during marking of coursework. Accordingly, the focus of this question was whether the examiners are aware of quality control and assurance procedures during assessment. This question refers to the statement of the problem where there was indication of a major concern about variations of marks between teachers and moderators. Therefore, the aim here was to establish how the examining body, in responding to this issue, assures quality and trustworthiness of the assessment.

It has been established from the findings of this study that variations of marks between teachers and moderators are of significant concern to both the examiners and the examining body. Evidence also shows that the examining body does attempt to address this by putting in place several mechanisms to minimize the variations with the aim of obtaining a valid assessment. To assist in ensuring that the assessment is valid and reliable, the conceptual framework used in this study stresses the need for quality control procedures since several examiners are involved (Gipps, 1994; Clayton et al., 2001). It is expected that examiners will, through the use of these procedures, achieve quality assessment, but in addition, the examining body should check that examiners are aware of these procedures and therefore adhere to them during marking.

Based on data in the present study, it can be argued that quality assurance is in place to monitor the assessment practice. The BGCSE uses a variety of procedures which include standardisation, moderation, double marking, grading and grade review in this assessment scheme. Some of these procedures are at times not applicable due to factors such as time constraints but are regarded as equally important. These findings are consistent with the literature where quality assurance in assessment is put in place to monitor the assessment practice (Clayton et al., 2000). Furthermore, FEDA (2001) and Timmins (2004) suggest that quality control and quality assurance whether specified by the examining body or not for both internal and external assessment requirements, is an important aspect of an assessment policy.

However, for this study there is evidence of quality control procedures in place but it is difficult to check if examiners fully adhere to them since there is very inadequate monitoring from the examining body. Furthermore, the findings show that the examiners' observation is that there is inadequate accountability by the moderators. Their expectations are that on submission of marks, the examining body should thoroughly check if they have marked as expected for instance after moderation especially if they have re-visited certain parts of their

work as it is often the case. Of interest, is the fact that the examining body is also aware of inadequate monitoring of the assessment process but lack of manpower and time are cited as contributing factors. Evidence however, shows that strategies put in place will improve monitoring and accountability of examiners.

Based on the findings from this study, one of the key and significantly used quality assurance procedures is moderation. The examiners, on completion of the task of assessing, are expected to report back to the rest of the group during a mandatory moderation meeting as part of the moderation procedure. Most moderators find this a useful procedure, but some argue against it. They cite that it is not a worthwhile exercise because the absence of student samples of work which makes it difficult for them to establish how the moderator really arrived at the decision. This means the student might be under or over-marked but no one can verify this without the marked piece of work. Consistent with this is Wolf (1995) who argues that in assessment systems, the use of samples of student work is particularly important as the standard is illustrated by the student work itself rather than by descriptions of their work but states that very little research has been done on this aspect of assessment.

Literature on the other hand, continues to show the importance of both the internal and external moderation as quality assurance procedure (SAQA, 2003; SQA, 2000). However, for these procedures to be effective, close monitoring by the examining body is essential as can be seen from the discussions in Chapter 5 of this study.

One other essential quality procedure evident in the findings is standardisation. The examiners value almost all aspects of standardisation, particularly the mark scheme and co-ordination meeting. These findings are consistent with Greatorex et al., (2002) and Baird et al. (2004) whose research revealed similar findings. The moderators value the co-ordination meeting for their professional development and the fact that they learn about application of the mark scheme. Of interest about the co-ordination meeting, as based on the findings, is the fact that the examiners feel part of the team and develop consistency with the other examiners and this boosts confidence while at the same time providing feedback. With regard to the standardisation exercise, moderators were unhappy about its duration; they described it as short with too much information crammed into a short period therefore leaving them confused and uncertain, particularly those unfamiliar with the exercise.

In conclusion, the results of this study suggest that even though there are quality assurance procedures in place, they may be not as effective as expected due to inadequate monitoring and accountability by the examining council. There is need for the examining body to review and monitor on a regular basis as there is evidence of little scrutiny of the moderation reports as a way for them to account for their marking. This, the respondents say, could compromise the effectiveness of the quality assurance procedures in place.

6.3.3 How does the examining body (BEC) ensure that the examiners adhere to the quality control mechanisms?

As it is the responsibility of the examining body to ensure that the quality of the qualification they offer is trusted by the public, this question accordingly aimed at establishing whether quality assurance procedures are in place and if there are ways of checking that these are adhered to. It must be noted that there is some kind of overlap between this question and the previous one. As it is a requirement for examining bodies, there has to be quality assurance procedures in place, as evident with the BGCSE, but once these are in place there is the need for them to be monitored to check if they are effective. The BEC, like other examining bodies, is engaged in the monitoring of these procedures as already discussed earlier in Section 6.4.2.

The findings of this study showed that the BEC does have ways of checking if examiners are adhering to the procedures. The BEC uses measures such as school visitations, monitoring of moderators' performance and mandatory co-ordination meetings for all examiners who mark coursework. The school visitation findings show that the BEC embarks on these with the aim of ensuring credibility of the assessment. However, the visits are not particularly significant as they are not regular and consistent. Monitoring the moderators' performance as they mark reveals discrepancies and where they are found not to adhere to set standards, they are either assisted in aligning to standards; however, if this issue persists, their contracts may be terminated. Of interest is the fact that the data does not actually show how such moderators are identified. The results show that adherence seems to only concentrate on the moderators. This suggests that generally the BEC does not have a systematic way of ensuring adherence, especially while the examiners are in field.

In conclusion, one would argue that the measures in place to check if examiners are adhering to the quality procedures during coursework assessment are not adequate. Therefore, the examining body needs to strengthen the system by setting up effective procedures, as

appropriate, for monitoring and improving the quality of coursework assessment especially where it serves external purposes. This should include monitoring the processes and the moderation outcomes. The BEC uses a dual layer of monitoring which makes up the quality control strategies that is, internal and external assessment. The suggestion here is for the BEC to increase the external monitoring, as the primary concern on any form of assessment is its quality.

6.4 METHODOLOGICAL REFLECTION

On reflection, the methodology for conducting this study was appropriate, however, three concerns arose. Firstly, use of the purposive sampling technique that warranted a small sample did not allow the findings to be generalized to the entire population, and therefore the results appear as exploratory.

Secondly, interviewing administrators at school level would have been beneficial since they play an equally important role at context level since equally their role is to provide support and guidance to the examiners. This might have created a gap in this study; however, the restricting factor here was time.

Thirdly, use of the three data sources, interviews, and documents analysed corroborated by the research journal, allowed me to compare, contrast and triangulate the data for credibility purposes.

As is the case with all qualitative studies, there are strengths as well as limitations to the study. Herbert and Higgs (2004) however, draw attention to the fact that in many cases the strengths of different research approaches can also be their limitations, as it will appear to be with this qualitative study. Firstly, this study is not transferable as observed with other qualitative studies. This is due to the fact that generally as qualitative research, its focus was on aspects of human or social world and its context, so it does not commonly seek to generalize the findings to the whole population or other context (Fraenkel & Wallen, 2000 p.508). Furthermore, as research shows, the use of the purposive sampling technique utilised in this study to select respondents was one of the factors that limited transferability and the interdependent nature of the data collected (Seval, 2004; Fraenkel & Wallen, 2000). However, on the other hand, Lincoln and Guba (1985) are of the view that experiences of teachers may have transferability or suitability to other settings.

With regard to the issue of transferability of this study, I described the methods and findings in sufficient detail to the reader so that s/he can assess the transferability of the findings in another context. Secondly, the fact that I am the researcher and therefore the sole analyst may have brought a possibility of subjectivity and bias to the findings. However, to minimize this, I took relevant action, as mentioned in the quality control and reflexivity sections of this study discussed earlier in Chapter 4 Sections 4.6.4 and 4.7. Thirdly, data obtained was difficult to handle especially during the analysis stage, which as Herbert and Higgs (2004) observed, may compromise the credibility of the study. Even though the literature shows that the data analysis process is useful in helping refine the theme and development of theory, it is a time consuming exercise as was the case with this study where the analysis was manually done. Lastly, with regard to the notion of truth in qualitative research, one rarely looks for (one) truth, rather one seeks a range of truths from the respondents during interviews for instance. Of importance here is the fact that qualitative researchers do not seek for new findings but instead in-depth results. To some this is a limitation (Seval, 2004).

Nevertheless, the results of the present study offer some implications for pre-service teacher education programmes, curriculum developers and policy makers who appear to play a significant role in the assessment system being studied. Given the limitations discussed earlier, the following implications are developed from the findings of this study and are discussed in depth in Sections 6.6 and 6.7.

6.5 REFLECTIONS ON THE CONCEPTUAL FRAMEWORK

This section presents and discusses the conceptual framework that guided this study with regard to its usefulness in relation to the different variables represented at the four levels constituting the conceptual framework.

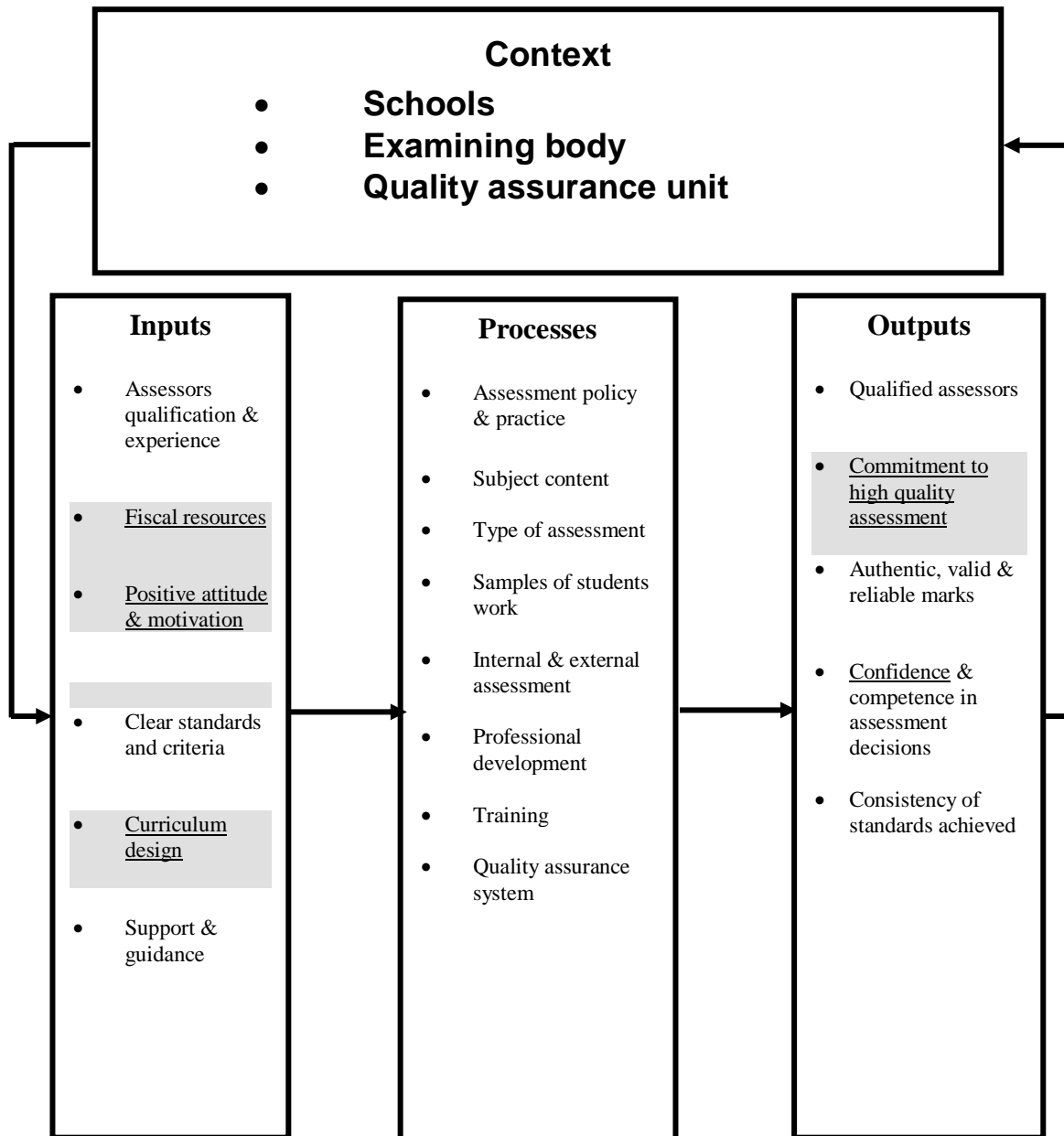


Figure 6.1: *Conceptual framework for the study.*

The above model represented in Figure 6.1, represents the conceptual framework that guided this study as based on the systems theory model (Bonathy, 2000). The model was adapted because of its principles that apply to systems in general and the fact that these principles are universal and therefore used in organisations across different fields. The theoretical aspects of the systems theory are rooted in Ludwig’s theory that pursues scientific exploration and control systems (Bonathy, 2000).

In this study, as already discussed in Chapter 3, the conceptual framework that guides the study in Section 6.1 is based on the systems theory model. I used this model in order to examine the perception of Home Economics examiners on coursework assessment. The systems theory model is based on the work of a biologist Ludwig von Bertalanffy as the basis for the field of study known as general systems theory (Muzikaci, 2006). The theoretical aspects of the model are rooted in the assumption that there are universal principles of organisation, which hold true for all systems and this therefore tends to be the focus of this model (Bonathy, 2000). The model illustrates a system in the context of this study but in order for the system to function, it relies on four underlying dimensions which are: the *context*, the *inputs*, the *processes* and the *outputs*, which were adapted for this study. Firstly, the context or environment where the schools and examining body are viewed as a key variable as the examiners cannot work in isolation since they function within the context of the school and the way they assess will be largely influenced by the environment under which they operate. Secondly, inputs such as examiners' qualifications, clear standards, criteria as well as support and guidance are influential on the processes and outputs as can be seen from Figure 6.1.

The data analysis in Chapter 5 confirms these four dimensions as being critical characteristics in order for an educational assessment system to function and therefore, of importance in this study. With regard to this study, the context, inputs, processes and outputs of the educational system under enquiry are related and are interdependent. As can be seen from the model in Section 6.4, there are internal variables that exist in an environment. This means that the variables at inputs, processes and outputs levels should not be looked at in isolation as they influence one another.

I would not make any changes to the conceptual framework, based on the findings of this study. Almost all the constructs at input level, except curriculum design, were useful as they showed the relationship between the dimensions. This confirmed that all four dimensions of the conceptual framework are critical features in the assessment system under inquiry. Summarily, one would argue that the conceptual framework was useful in this study as it illustrated and was supported by the data.

Most of the aspects of the conceptual framework in Section 6.4 are revealed in the data and the literature reviewed as important and contributing factors in coursework assessment at all

four levels that is, context, inputs, processes and outputs levels. Of importance, is the fact that the model confirms the relationship between the constructs which is consistent with studies conducted nationally and internationally (Maxwell, 2006b; Gipps, 1994).

6.6 RECOMMENDATIONS

This section presents recommendations that were formulated directly from the data obtained as a means of building on the strengths of this study as well as addressing areas of development.

The following key recommendations were made:

1. Review the BGCSE Home Economics curricula that have been running now for about eight years. It is important that after the development and implementation of such an educational innovation, it be continuously reviewed and assessed to ascertain if it is functioning as it should and to provide feedback to inform improvement. One way of doing this is to explore the concerns of the teachers involved.
2. The BEC should address the major problem of persistent variations of marks between examiners, identified by this study, which leave the credibility of the qualification questionable.
3. Subject meetings and workshops at both regional and national level should be held on a more regular basis than as indicated in this study. Such training will ensure that resources and expertise are not only devoted to the development stage but to the implementation stage as well. Furthermore, the in-service training will equip teachers especially those joining the profession as it provides them with more opportunities to develop skills and confidence for implementing the innovation.
4. There should be more documented guidelines for use by all Home Economics teachers to include moderator guidebooks. These documents will provide and guide the examiners especially the novice, with information needed in conducting the assessment.
5. Initial teacher training and professional development should reflect the significant role of assessment in education by giving it appropriate time and attention. More emphasis needs to be placed on improving teachers' skills in assessment especially that of practical subjects like Home Economics.

6. There is a need for the examining body to strengthen the monitoring system especially with regard to the adherence of the examiners to the quality control procedures. When assessment takes place, it is important for the examining body to ascertain quality through monitoring of standards. There should be quality assurance procedures in place to ensure that mechanisms for ensuring quality and that all involved in assessment are supported in their use. Without adherence and monitoring of the quality assurance procedures, this tends to compromise the quality of the assessment.

6.7 RECOMMENDATIONS FOR FURTHER RESEARCH

This section presents recommendations for further research as derived from the findings of this study and these are:

Firstly, this study could be expanded to investigate the extent of the variations between teacher and moderator marks with emphasis on possible sources of bias in their assessment and then seek a solution.

Secondly, there is need for further research into school-based assessment towards a better understanding of teacher's perceptions that may offer success to improved practice. A study could be conducted with all optional subjects engaged in coursework assessment. Experience could then be compared regarding the two studies. Findings from both studies could be compared to provide a more comprehensive understanding of the experiences of both teachers on this issue.

6.8 CONCLUSIONS

From the findings of this study, it is evident that the examiners need to become more empowered through in-service training in order to develop skills and competence in coursework assessment. The impression gained from this study is that training, development of expertise and support of examiners focuses on the developmental stage, and once the scheme was implemented, further training and support is then limited. This therefore, means that uncertainty and lack of competence continue to prevail among the examiners especially those joining the profession. Given the fact that this is a new innovation and also taking into consideration the implications of this study, it is a matter of urgency for a review or an

evaluation of this assessment scheme so as to obtain feedback from the examiners in order for improvement. One way to evaluate the new assessment system would be to explore the concerns and perceptions of the examiners through further research.

This study has revealed several gaps in the knowledge about the processes by which teachers arrive at judgements especially in coursework assessment. An assessment like that of coursework and one in which the teacher is centrally involved, is a challenge to those handling it in terms of validity and reliability. This is due to the range of skills, processes and the context in which it may take place. In order to ensure that BGCSE Home Economics assessment serves its purposes of certification, there ought to be some assurance that there is comparability across the examiners' assessment decisions, which in this study was found to be inadequate despite the quality control procedures in place. As a result, there is need for BEC to strengthen this aspect and ensure that all moderators adhere to the set guidelines and criteria.

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APPENDICES

APPENDIX A

BGCSE Food & Nutrition Syllabus

1. INTRODUCTION

As part of the Senior Secondary Education Programme, this Food and Nutrition Assessment Syllabus is designed to assess candidates who have completed a two-year course based on the Senior Secondary Food and Nutrition Teaching Syllabus.

This syllabus aims to assess positive achievement at all levels of ability and candidates will be assessed in ways that encourage them to show what they know, Understand and can do.

The candidates will sit four papers, details of which are given in Sections 4 and 6. Differentiation will be achieved by task and outcome, with candidates sitting the same papers, based on common content.

Candidates will be graded on a scale A-G. As a guide to what might be expected of a candidate's performance, grade descriptions are given in Section 7.

This syllabus should be used in conjunction with:

- (a) The Senior Secondary Food and Nutrition Teaching Syllabus;
- (b) The specimen question papers and marking schemes.

2. AIMS

Candidates following this syllabus should have acquired and developed:

1. An appreciation of the role of Food and Nutrition in improving the health status of individuals;
2. Foundation skills to help them to be productive and adaptive to meet the challenges of an ever changing environment;
3. An awareness of the Food Policies at national and international level;
4. Knowledge and skills for effective organisation and management of resources in relation to Food and Nutrition;
5. Consumer awareness for decision making in contemporary Food and Nutrition issues;
6. Technological capabilities in applying knowledge and skills systematically in food preparation for maximum nutritional benefit;
7. Managerial and entrepreneurial skills in Food and Nutrition.

8. An appreciation of indigenous foods and traditional dishes.
As far as possible, the Aims will be reflected in the Assessment Objectives; however, some

3. ASSESSMENT OBJECTIVES

Aims cannot be readily assessed.

The three assessment objectives in Food and Nutrition are:

- 1 Knowledge with understanding**
- 2 Handling information and solving problems**
- 3 Experimental skills and investigations**

1 Knowledge with understanding

Candidates should be able to demonstrate their knowledge and understanding of:

- 1.1 scientific and technological terminology and principles;
- 1.2 nutritional needs in relation to social, economic and environmental implications;
- 1.3 The correct use of equipment;
- 1.4 safety, hygiene rules and regulations;
- 1.5 basic quantities, methods and the importance of accuracy;
- 1.6 basic concepts in Food service business and consumerism;
- 1.7 factors influencing food choices;

Questions assessing these objectives will often begin with one of the following words: *define, state, describe, outline, etc.* see appendix C, glossary of terms.

2 Handling information and solving problems

Candidates should be able to:

- 2.1 read and interpret information;
- 2.2 translate information from one form to another;
- 2.3 follow given instructions;
- 2.4 manipulate data;

- 2.5 organise and manage time, money, energy, material and equipment in a given situation;
- 2.6 estimate and measure accurately, shape, size, capacity, amount, weight, time and temperature;
- 2.7 evaluate information on food products and services;
- 2.8 budget for intended item! Product or service;

Questions assessing these objectives will often begin with the following words: *discuss, suggest, predict, calculate, determine, etc.* (see appendix C, glossary of terms.)

3 Experimental skills and investigations

Candidates should be able to:

- 3.1 identify problems;
- 3.2 follow given instructions;
- 3.3 test and compare methods, materials and equipment used in food preparation;
- 3.4 obtain and interpret evidence on which to base judgements and choices;
- 3.5 identify priorities;
- 3.6 assess and evaluate the effectiveness of the course of action;
- 3.7 record observations;
- 3.8 Carryout a variety of food preparation techniques/ processes/ methods which demonstrate manipulative skills.

Questions assessing these objectives will often begin with the following words: Calculate, evaluate, demonstrate, measure, construct etc. (see appendix glossary of terms)

<h2>4. SCHEME OF ASSESSMENT</h2>

The syllabus is assessed through one written paper and an assessment of practical skills.

All candidates will sit Paper 1, 2, 3 and 4

Written Paper

All questions are compulsory.



Paper 1 **2 hours** **100 marks**

The paper will range over the entire syllabus content and will assess Assessment Objectives 1, 2 and 3. This paper will constitute **50%** of the overall assessment

There will be three sections.

Section A

Short answer questions, worth a total of forty marks, 40 marks

Section B

Four structured questions, worth ten marks each. 40 marks

Section C

One essay type question worth twenty marks 20 marks

Continuous assessment

This will consist of the following components:

- 1 Paper 2: Practical Test 1 done at the end of Form 4.
- 2 Paper 3: Individual Study done during the second term of the final year.
- 3 Paper 4: Practical Test 2 done at the end of final year.



Paper 2
Practical Test 1

100 marks

This will assess assessment objective 1, 2 and 3 and will constitute **5%** of the overall assessment.

The paper will consist of the following parts

Planning	20 marks
Processes	35 marks
Quality of results	20 marks
Presentation	10 marks
Evaluation	15 marks

The individual school is responsible for developing the question paper.

The paper will be internally assessed by the teacher and marks will be handed to the chief invigilator, who in turn will submit them to the external moderator. The practical test will take place at the end of Form 4.



Paper 3

Individual Study

100 marks

A classroom and laboratory based paper, which will assess Assessment Objectives 1, 2 and 3 will constitute 30% of the overall assessment.

The paper will consists of the following: -

- | | |
|-----------------------------|----------|
| 1. Presentation | 5 marks |
| 2. Task analysis | 10 marks |
| 3. Planning | 10 marks |
| 4. Investigations/ research | 30 marks |
| 5. Realisation | 20 marks |
| 6. Communication | 10 marks |
| 7. Evaluation | 15 marks |

ERTD will develop the theme annually.

The paper will have a problem solving approach following the design process.

The paper will be assed and standardised by teachers within the department and externally moderated

The moderators will sample 30% of the total candidate and the teacher will assess the rest. This will be done during the second term of the final year.



**Paper 4
Practical Test 2**

100 marks

This will assess assessment objective 1, 2 and 3 and will constitute 15% of the overall assessment.

The paper will consist of the following parts

Planning	20 marks
Processes	35 marks
Quality of results	20 marks
Presentation	10 marks
Evaluation	15 marks

ERTD will develop the practical test 2 annually and the examination will be sent to schools at the beginning of term 3.

The moderator will select the candidates to be moderated and these will be 30 % of the total candidature for each school. The Practical will be done at the end of Form 5.

Assessment Grid

The following grid summarises the connection between the assessment objectives and the papers.

PAPER	Weighting	ASSESSMENT OBJECTIVES		
1	50%	40	40	20
2	5%	25	25	50
3	30%	20	40	40
4	15%	25	25	50

Awarding and reporting

Candidates' results will be reported on a seven Grade scale from A -G. (See page 21 on grade descriptions.



5. CONTENT

The syllabus content is arranged in three columns.

- a. Topics**
 - b. General Learning Objectives**
 - c. Specific Learning Objectives**
- a) Topics in the first column are those strands of the subject which candidates should have studied.
 - b) Each topic is then defined in the second column in terms of the General Learning objectives - knowledge, understanding and skills on which candidates may be assessed.
 - c) The specific learning objectives - in the third column address the topic and the general learning objectives. These may be assessed practically and or in a written examination.



1. NUTRITION AND HEALTH

Topic	General Objective	Specific Objective
	Candidates should be able to:	: Candidates should be able to
Nutrients	Understand the relationship between nutrients and food.	<ul style="list-style-type: none"> - Explain nutrition with reference to nutrients and food; - Identify the main groups of nutrients found in food (protein, carbohydrates, fats and oils, vitamins, minerals, water and non-starch polysaccharide).
	Appreciate the nutritive value of indigenous foods and other foods.	<ul style="list-style-type: none"> - Define a food pyramid or plate; - describe food groups which make up a food pyramid! Plate; - Group indigenous foods according to food pyramid/ Food plate; - discuss the nutritive value of indigenous foods and a variety of other foods from all the groups in the food pyramid! Food plate.
Diet and health	Understand the effect of nutrients on an individual's nutritional status.	<ul style="list-style-type: none"> - Discuss the nature, sources, properties and functions of nutrients; - Discuss maintenance of good health through diet; - Discuss the importance of the food pyramid or food plate in relation to healthy eating; - Discuss the effects of fast foods e.g. chips on an individuals health; - discuss causes, signs symptoms and prevention of deficiency diseases. (Choose one from the following groups of nutrients: carbohydrate, protein, fats and oils, vitamins, minerals, water, and non starch polysaccharide); - discuss the cause, signs and symptoms, prevention and control of diet related disorders, for example, anorexia nervosa, Obesity, etc.
Dietary Requirements	Acquire knowledge on current dietary guidelines to improve nutritional status of Individuals.	<ul style="list-style-type: none"> - Discuss current dietary guidelines; - Explain the importance of RDA (Recommended Daily Allowances) and DRV (Dietary Reference Values) in planning balanced diets; - Investigate nutritional requirements of



		<p>individuals from childhood to adulthood to include special needs such pregnancy, lactation, vegetarian, etc</p> <ul style="list-style-type: none">- Discuss use of food supplements and how they promote and affect individual's health.
Planning meals	Apply principles of nutrition when planning meals	<ul style="list-style-type: none">- Investigate factors which influence People's choice of food;- Plan balanced meals using food Pyramid! Plate (childhood - Adulthood);- Plan meals for various individuals With reference to their needs;- Plan a modified diet (low energy, Low sugar, iron rich etc.) For a diet Related disorder of your choice;- Discuss principles to bear in mind When planning meals for HIV / AIDS patients;- Work out the nutritional value of Dishes! Food using food Composition tables and /or computers;- Cost dishes and meals prepared Using the actual price of the food Item.



2. FOOD AND TECHNOLOGY

Topic	General Objective	Specific Objective
	Candidates should be able to	Candidates should be able to
Kitchen planning	Acquire knowledge Understanding and Skills in kitchen Planning.	<ul style="list-style-type: none"> - Discuss different kitchens; Traditional, domestic and Industrial; - Investigate factors to Consider when planning a Kitchen for example shape, Size, ventilation, lighting and Safety; - Plan a kitchen suitable for Your needs; - Discuss ways of improving Traditional /outdoor cooking Areas.
Kitchen Equipment	Acquire knowledge, Understanding and Skills in the efficient Use of kitchen Equipment;	<ul style="list-style-type: none"> - discuss factors to consider When choosing kitchen -Demonstrate the correct use of equipment. Kitchen equipment; - Investigate the efficiency of various kitchen equipment and technologies used in the kitchen.
	Acquire knowledge, understanding and Skills in the care of the kitchen; kitchen equipment And surfaces	<ul style="list-style-type: none"> - discuss suitable cleaning agents and materials used in kitchen - demonstrate appropriate ways of cleaning kitchen surfaces - demonstrate the correct ways of cleaning kitchen equipment; - demonstrate the correct ways of storing kitchen equipment.
Kitchen hygiene And safety	Explain and Demonstrate safe and hygiene rules and practices Food preparation	<ul style="list-style-type: none"> - discuss the importance of hygienic practices in when handling food; - discuss and compile guidelines on safety precautions in the Kitchen; - Apply hygiene rules and practices when handling food; - practice safety precautions in the kitchen.
Methods of	acquire knowledge and understanding of heat transfer	<ul style="list-style-type: none"> - investigate methods of heat transfer conduction, Convection and radiation; - carry out experiments using kitchen equipment to demonstrate good and bad conductors of heat.
	Appreciate and apply scientific principles underlying various methods of cooking.	<ul style="list-style-type: none"> - relate ways of heat transfer to different cooking methods (Dry, moist and combination); - investigate and explain the effect of moist



		<p>and dry heat on food: flavour, texture, appearance and nutritive value;</p> <ul style="list-style-type: none"> - investigate ways of cooking. Food traditionally in relation to flavour, texture, appearance and nutritive value; - explain the advantages and disadvantages of different methods of cooking; - apply cooking methods suitable for different foods; - Demonstrate economic use of food, fuel, labour and time.
Food selection	Analyse and evaluate the factors that influence food selection	<ul style="list-style-type: none"> - identify factors that affect food influence food availability and access in selection. Botswana in relation to economic and social factors, seasonal effects and geography; - assess the characteristics of food when selecting them in relation to texture, odour and appearance; - describe the sources of foods (protein, cereals, vegetables and fruits) and compare their versatility, nutritive value, value for money, etc.
Preparation Food	<p>Apply skills in the preparation and serving of meals using indigenous and other foods.</p> <p>Acquire knowledge and understanding skills in the use of Convenience foods.</p>	<ul style="list-style-type: none"> - investigate and explain the effect of food preparation processes on the nutritive value of foods; - investigate the use of indigenous foods and their place in the diet; - Prepare and serve dishes to demonstrate the use of indigenous foods; - Prepare and serve meals for various individuals with reference to their needs; - prepare and serve meals for a health disorder of your choice; - using given recipe data, describe and demonstrate methods of making food products/dishes to include flour mixtures; - Discuss reasons for modifying a recipe; - investigate with various ingredients to develop a new food product; - prepare and serve meals for special occasions to include entertaining, packed meals, snacks, etc; - Demonstrate attractive presentation of foods such as garnishing, decorating, glazing, table etiquette etc. - investigate convenience foods in relation to types discuss the importance of Food labels;



Food spoilage and preservation.	understand and apply principles underlying food spoilage and preservation	<ul style="list-style-type: none">- Compare convenience foods with their home made equivalents: cost, ease of storage, use, time, palatability, flavour, consistency, and keeping quality and nutritive value;-Investigate different food additives;-Indicate health problems associated with food, additives e.g. tetrazzini on children. - Investigate the action of micro - organisms and enzymes on food;- Discuss the importance of food preservation;-investigate principles of food preservation in relation to moisture, exclusion of air, temperature, use of chemicals and irradiation;-Demonstrate food preservation by using any principle of your choice (exclusion of moisture, exclusion of air, temperature, use of chemicals and irradiation).
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1. CONSUMER EDUCATION AND FOOD SERVICE BUSINESS

Topic	General Objective	Specific Objective
	Candidates should be able to:	Candidates should be able to:
	-develop awareness and appreciation of Consumer service rights and responsibilities enhance informed decision making	<ul style="list-style-type: none"> - explain the importance of education consumer education; - Differentiate between consumer, to producer, goods and services; - Discuss the rights and. Responsibilities of a consumer; -Discuss measures in place to advocate consumer protection such as Botswana Bureau of Standards, Consumer Affairs Unit, Independent Consumer groups, Health inspectors, Food Act, Environmental Unit and Ombudsman; -Discuss factors which influence consumer decision making; -Compare and discuss the price of food with reference to shopping facilities available (wholesaling, Small general dealers, departmental stores, delicatessen etc.).
Cash Budgeting	Acquire knowledge, understanding and skills in the management of Personal business finances.	<ul style="list-style-type: none"> - State the importance of budgeting; - Discuss factors to consider when budgeting; - Define income (gross and net); - Identify different sources of income; -Draw up personal and family budget; - Draw up a budget for the food business/service of your choice (set aims/objectives, gather information, prepare sales and production budgets, prepare other operating budgets and produce Master plan budget).
Food service business	Develop awareness of the operation of a food service business	<ul style="list-style-type: none"> - Identify Food and Nutrition related careers and businesses in Botswana; - Investigate the common forms of business organisation or ownership in relation to food service; - Discuss skills and resources necessary to start a food business; draw up guidelines on how to start a food service business;



		- develop a food business plan.
Marketing a food service business	Understand and apply the market mix in a food business	<ul style="list-style-type: none">- Explain the market mix (Product, place, promotion, and price) for a chosen food product;- Discuss selling techniques (direct and indirect selling); investigate ways of buying and selling food in a food business or service (cash, sales on credit, trade sales, credit sales, .hire purchase for large equipment, cheques, direct debit, standing order, credit cards etc); <ul style="list-style-type: none">- Discuss customer service in a food outlet.
Production	Acquire knowledge Understanding and skills in the production of the Chosen food product /service.	<ul style="list-style-type: none">-set realistic goals for production sales and profit of chosen food Business;-draw up production design and Layout: consider; equipment, material and human resources;-make a production flow chart for a chosen food product or service;- draw up guidelines on costing and pricing of the chosen food product. Service (fixed and variable costs);-discuss the importance of a control and feedback system in a food business;-identify environmental pollution problems related to the food business;-determine ways of preventing environmental pollution.
Record keeping	acquires knowledge,	<ul style="list-style-type: none">- discuss the importance of record keeping.- interpret and use a cash book, sales and order book and inventory cards in a food business, service;-interpret a balance sheet and income statement of a food business.-demonstrate record keeping in a food business.

6. CONTINUOUS ASSESSMENT

Individual Study

This is a problem solving activity. Candidates will be given a theme in which they will analyse and identify a problem. They will then be required to carry out some research to solve the problem, using information based on the content of the syllabus. This will be a whole term's project, which will be internally assessed by teachers and externally moderated.

Marking

A final mark is decided when the whole project is submitted. There must be internal standardisation of marking and all members of the department must be involved in the exercise. A meeting should be convened for the purpose, presided over by a senior member of staff, designated by the head of the centre.

7. GRADE DESCRIPTIONS

Grade descriptions indicate the overall levels of achievement expected of candidates for the award of particular grades. The grades awarded will depend upon the extent to which the candidate has met the Assessment Objectives overall.

Grade A

Candidates should:

- Apply scientific principles and technological vocabulary and terminology;
- justify choice of kitchen equipment and use them correctly;
- justify factors which influence consumer decision making;
- apply basic concepts in food business and consumerism;
- Identify hazards and explain safety precautions in order to minimise accidents;
- Justify and practice hygiene principles;
- develop recipes;
- Demonstrate the ability to convert units of measure and temperature;
- identify, process, and present relevant information logically and correctly according to the given situation;
- Investigate the relationship between nutrition and health;
- Exhibit precision in executing tasks.

Grade C

Candidates should:

- Use scientific principles and technological vocabulary and terminology;
- make appropriate choice of kitchen equipment and use them correctly;
- identify factors which influence consumer decision making;
- Use basic concepts in Food business and consumerism;
- Identify safety hazards in order to minimise the occurrence of accidents;

- practice hygiene principles;
- Adapt recipes;
- Measure ingredients accurately;
- Identify and present relevant information;
- Identify the relationship between nutrition and health;
- Exhibit ability to execute tasks.

Grade F

Candidates should:

- Follow scientific principles and list technological vocabulary and terminology;
- Identify basic kitchen equipment and use them;
- Identify some factors which influence consumer decision making;
- List basic concepts in Food business and consumerism;
- List safety hazards and precautions;
- Follow recipes;
- Measure ingredients;
- Identify and present information;
- List basic nutritional needs;
- Carry out tasks.

8 Appendices

A MARKING CRITERIA FOR COURSE WORK. (INDIVIDUAL STUDY)

Presentation 5 marks

General description

- * Complete, clean, well bound, neat.
- * Fully labelled, with correct headings.

4 to 5 High

- * Clean and attractive (good illustrations, pictures, etc.)
- * Has content page
- * Numbered pages
- * Clearly laid out information with headings and subheadings.
- * Well bound
- * Well labelled (name of candidate and centre numbered, title and date of study.
- * Bibliography and acknowledgements.

2 to 3 Medium

- * Attractive
- * Has content page
- * Some pages numbered
- * Some headings
- * Labelled folio
- * Adequately labelled
- * Bibliography and acknowledgements

1 mark (Low) (Only one or two of these points shown)

- * Partly labelled folio
- * Fairly attractive folio,
- * Some headings indicated

Task analysis 10 marks

General descriptions

- * Analyse the theme, identify the need task, problem
- * Come up with brief I task
- * Show an understanding of aims and objective, of the task and factors involved
- * State what he/ she hopes to achieve at the end of the task

7 to 10

- * Interpret and analyse the theme in order to identify the need / task / problem
- * Analyse the task and give a precise task title
- * Identify and justify priorities in the task clearly and concisely.
- * Clearly specify the aims and objectives of the task (what to do? Why do it?)



- * Identify and explain factors to consider when carrying the task?

4 to 6 marks

- * Interpret the theme in order to identify need! Task! Problem
- * Give a precise task title
- * Identify and justify priorities in the task
- * Specify aims and objectives of the task

1 to 3

- * Show an understanding of basic requirements of the task
- * Identify one or two factors with help and guidance
- * Identify some aims and some objectives of the task

Planning

10 marks

General description

- * Methods and procedures/ techniques
- * Sequence of work
- * Resources
- * Time frame

8- 10

- * Main and subtopics relevant to task
- * A variety of techniques and methods
- * Logical sequence of work to be done
- * Effective plan of work (resources)
- * Resources to be clearly outlined
- * Clear evidence of development of ideas

5-7

- * Relevant topic with few subtopics
- * Correct techniques and methods
- * Time plan indicated
- * Resources identified
- * Sequencing of work

1-4

- * Identify topics
- * Techniques and methods used
- * Brief sequencing of work
- * Time plan not logical

Investigation / research

30 marks

General description

- * Various methods /skills of collecting data, comprehending and interpreting Information
- * Up to date information
- * Variety of experiments and recording of data

- * Analysing data
- * Conclusion leading to product specification

26 to 30

- * Variety of methods used
- * Excellent selection, use and application of knowledge and information related to the study

20 to 25

- * Variety of methods used
- * Appropriate selection, uses and application of knowledge and information and attempts to apply this to the study

14 to 19

- * Variety of methods
- * Collects and uses knowledge and information and attempts to apply this to the study

8 to 13

- * Variety of methods used
- * Limited information collected
- * Comprehending and interpreting knowledge insufficient and limited application to study

1 to 7

- * One method used
- * Little evidence of acquired vocabulary from research.
- * Indiscriminate collection of data.

0 No work submitted

Realisation

20 marks

General Description

- * Effective Use of resources
- * Demonstrate high level of organisation
- * Appropriate selection of materials
- * Adopts/ modifies and plans to overcome problems.

16 to 20

- * Uses resources effectively
- * Clearly demonstrates a high level of organisation showing initiative
- * Work appropriately regarding the aims and objectives of the task
- * Adopts / modifies, plans in order to overcome problems and seek advice on making changes
- * Selects materials and resources

12 to 15

- * Demonstrates level of organisation showing some initiative
- * Uses resources effectively although resources may not be as originally planned
- * Recognises when to adapt plans in order to overcome problems and seek advice when Making changes
- * Selects materials and resources for task

6 to 11

- * Demonstrates some organisational skills and showing some initiative
- * Manages resources with guidance
- * Overcomes some problems with help
- * Selects resources correctly although help may be needed

1 to 5

- * Demonstrates limited organisational skills and initiative
- * Selects resources with guidance
- * Limited recognition of problems before they occur

0 realisations not done.

Communication **10 marks**

General description

- * Clear communication of ideas
- * Uses relevant language for the study
- * Uses different forms of communication

8-10

- * Clearly communicates the ideas relating to all aspects of the study, i.e. (investigation, Measurement evaluation, charts, questionnaires, experiments
- * Relevant language
- More than on form of communication used

5-7

- * Communicates some aspects of the study
- * Limited use of relevant language

1-4

- * Fairly communicates some aspects of the study, but with relevant use of language
- * Limited expressions of ideas

Evaluation **15 marks**

General description

- * Self evaluation
- * Critical review of work done (strengths and weaknesses)
- * Comments on achievements of goals/ objectives
- * Recommendations
- * Modification and changes where necessary
- * Interpretation of outcomes to include other stages
- * Conclusion

12 -15

Excellent evaluation

- * Review work critically and respond appropriately
- * Comment on whether they achieved what they intended (in relation to the aims of the study)
- * Self evaluation (how did I perform, diligence, application organisation)
- * Recommendations
- * Conclusion (effective conclusion)
- * Modification and changes well justified outcome well interpreted

8-10

Good evaluation

- * Review work and respond appropriately
- * Examination of the points made in relation to the aims of the study
- * Review tasks
- * Satisfactory self evaluation
- * Adequate evaluation
- * Recommendations
- * Modification and changes justified
- * Outcomes interpreted

4-7

Satisfactory evaluation

- * Satisfactory review of work and response
- * Self evaluation
- * Limited conclusion
- * Some recommendations
- * Limited justification of modification
- * Limited interpretation of outcomes

B MARKING CRITERIA FOR PRACTICALS

Planning 20 marks

- Choice of work 7 marks
(5 for dishes and 2 for recipes.)
- Time plan 8 marks
- Shopping list 5 marks

Processes 35 marks

- Correct and appropriate processes (manipulative skills) 20 marks
- Efficient use of resources (food, fuel and labour) 10 marks
- Tidiness and hygiene 5 marks

Quality of results 20 marks

- Colour 5 marks
- Texture/ Consistency 10 marks
- Flavour/ Taste 5 marks

Presentation

- Serving and Packaging 10 marks**
- Correct serving dishes/ packaging materials and labelling 3 marks
 - Tidy and attractive serving environment 4 marks
 - Cleanliness of dishes/ packaging materials 3 marks

Self Evaluation 15 marks

There should be justification for every point

The Quality of the product

The process you went through the practical, the success of your final product

How well you have worked

- Have I addressed the task? / have I solved the problem? 4 Marks
- What were my constraints? 2 marks
- What went right and what went wrong? 5 marks
- What would I do if were to do it again? 4 marks

Rules and guide lines for practical examinations

Marks should be submitted to the chief invigilator who will in turn submit them to the external moderator.

Planning should be within two weeks before the practical test /examination.

There should be 5 - 8 candidates per session taking into consideration the space and resources available.

The external moderator will select the candidates to be moderated and these will be 30% of the total candidature for each centre.

Candidates should be allowed to go straight into the Evaluation as soon as they finish the practical. The amount written and the time spent on Self Evaluation, up to a maximum of half an hour, are left to the candidate. The comments written by the candidate should be attached to the plans.

Form 4 Practical tests 1.

Planning and preparation two weeks before the examination.

Practical and Self Evaluation 2 hours

Form 5 Practical tests 2

Planning two weeks before examination.

Practical and Self Evaluation 2 ½ hours

C. Glossary of terms

Learning objectives in the content section of the syllabus are expressed in terms of what the candidates **know, understand and can do**. The words used on examination papers in connection with the assessment of these learning outcomes are contained in this glossary. This is neither exhaustive nor definitive but is meant to provide some useful guidance.

1. Written questions about what candidates are expected to know.

A lot of the marks are involved with recall. Words used on examination papers in connection with such questions may include:

State; List; Give Name; Define; Draw; Write; What; How; What is meant by etc.

State and Name implies a concise answer with little or no supporting argument.

List requires a number of points generally each of one word, with no elaboration.

Define is intended literally, only a formal statement or equivalent paraphrase being required.

What is meant by normally implies that a definition should be given together with some relevant comment on the significance or context of term(s) concerned, especially when two or more are included in the question. The amount of supplementary comment intended should be interpreted in the indicated mark value.

2. Written questions about understanding

Understanding May be associated with simple factual recall. In this sense the candidates is required to recall the relevant part of the defined syllabus and use this recalled information to amplify and extend this in a wider context. This wider context will include situations or materials with which the candidates are familiar. Questions may include:
Explain; Complete; Why; Construct; Which; etc.

Explain may imply reasoning or some reference to theory, depending on the context.

Understand may also be associated with skills other than factual recall. It can be used to assess the candidates' abilities in problem solving, interpretation and evaluation, data handling and in communication of scientific ideas, principles and concepts. Words include: suggest; *Work out, How you would know that; .etc.*

Suggest is used in two main contexts, i.e. either to imply that there is no unique answer or to imply that candidates are expected to apply their general knowledge to a novel situation, i.e. one that may not formally be in the syllabus. This would be related to the assessment objective 2-"Handling information, application and solving problems".

3. Written questions about be able to

The use of this phrase is often associated with higher-order skills of interpretation, evaluation, and communication. It involves the ability to recall the appropriate material from the content and apply this knowledge. Questions may well include:
Deduce; relate; interpret; explain; carry out; evaluate; predict; discuss; construct, suggest; calculate; find; demonstrate; estimate; determine. etc.

Deduce is used in a similar way to predict except that some supporting statement is required e.g., reference to a law or principle, or the necessary reasoning to be included in answer.

Predict implies that the candidate is not expected to produce the required answer by recall but by making logical connection between other pieces of information. Such information may be wholly given in question or may depend on answers extracted in an early part of the question.

- Calculate** is used when a numerical answer is required. In general, working should be shown when two or more steps are involved.
- Find** is general terms that may be interpreted as *calculate, measure, determine, etc.*
- Measure** implies that the quantity concerned can be directly obtained from suitable measuring instruments.
- Estimate** implies a reasoned order of magnitude statement or calculation of quantity concerned making such simplifying assumptions as may be necessary about points of principle and about the values of quantities not otherwise used in question.
- Discuss** requires the candidates to give a critical account of the points involved in the topic.
- Determine** often implies that the quantity concerned cannot be measured directly but is obtained by calculation, substituting measuring or known values of other quantities into a standard formula.

APPENDIX B

BGCSE Food & Nutrition Marking Criteria

Scheme of assessment

Allocation of marks

The total of 100 divided thus:

Preparation session

a.	Choice and plan	20 marks
b.	Method of working or processes	35 marks
c.	Quality of results	20 marks
d.	Presentation	10 marks
e.	Evaluation	15 marks

DETAILED ALLOCATION OF MARKS

(A) Preparation session

(i) Choice of work Maximum 7 marks

- 5 marks for dishes and 2 marks for ingredients.
- Repeated skill 1st dish full marks and 2nd dish mark out of ½.
- Water should be included under recipes where it is needed as part of the Recipes e.g. drink.
- For over planning divide 5 by amongst all dishes planned for.
- General points applicable to the test
- The dishes chosen should:
 - meet the specific requirements of the test
 - combine to form well balanced meals (where applicable)
 - show an awareness of time available for cooking and serving.
 - Ingredients for dishes chosen must be clearly listed with quantities for each dish.

(B) Method of working or processes Maximum 35 marks

Award marks for the following points:

- General approach to the test: business like, well organised, methodical and Appreciation of timing. (5)
- Methods used in preparing food and dishes i.e. general manipulation, variety of Skills and degree of skill. (16)
- Economy of utilities and cleaning materials e.g. gas. Electric, solid fuel, water etc. (3)
- Personal and food hygiene. (5)

- Food economy; e.g. scraping off mixtures from Mixing bowls etc (3)
- Tidy (3)

As a general guide, the following range of marks could be applied

- 28/35 to 35/35 (80% to 100%) for very good methods, excellent timing and variety Of skills shown. These marks will only be given to a very able candidate.
- 22/35 to 27/35 (60% to 77%) should be awarded for 2 skilful dishes and 1 less skilful Dish. i.e. repetition of skills. Skills not adequately executed.
- 18/35(51%) should be awarded for 1 skilful dish and two not so demanding dishes.
- 17/35 should be awarded for a candidate who does not show a variety of skills.

If candidate has wrongly answered the question, he/she should lose 7 marks for Wrong choice of dishes. The candidate should then be marked as normal and the Total mark divided by 2.

(C) Presentation: Maximum 10 marks.

Serving/packing labelling:

- correct serving dishes/ packaging materials neat, appropriately labelled, under plates For casseroles, correct use of doilies etc (3)
- Tidy and attractive serving: Sequencing. (Where applicable) floral arrangement, Labels or menu cards, table cloths/place mats. Mood to meet the requirement of the test (4)
- Cleanliness: clean dishes, tablecloth and serving environment (3)

4

(D) Quality of results maximum 20 marks

Marks should be divided between dishes and accompaniments according to skills used. Please indicate on the mark sheet the **full mark** allocated for each dish and **mark awarded**.

(E) Evaluation 15 marks

This exercise is to be conducted at the end of the practical work. In evaluating their own work, candidates have the opportunity to reflect on the following:

- **Processes undertaken** (2)
At least 4 processes
- **Quality of products** (candidates are expected to state a minimum of two points or 2 each dish) (6)

- Dishes must be named and specified with the results, texture, flavour, And appearance.
- should comment on all dishes, each should be represented.

In assessing the quality of finished dishes, candidate's are expected to write

Comments on the assessment sheet about flavour, texture, appearance etc.

- **Successes (at least three achievements) (3)**

What has the candidate achieved?

- Having finished all the dishes- time used effectively.
- Able to decorate the cake
- Being able to light the oven
- Used the pressure cooker
- Able to follow the time plan
- Able to whisk properly
- Weighing accurately
- Being able to finish and clean up the working area.

- **Constraints (at least two constraints) (2)**

Factors where candidates do not have control over
Factors that hinders candidate's progress

e.g. - Power failure

- Lack of water
- Sharing equipment
- Substituting the ingredients
- Not able to use the equipment correctly/properly

If a candidate writes **No Constraints** there is need to justify.

- Comment as an examiner, if the candidate has written no constraints.

- **Modifications (at least 4 modifications) (2)**

- The difference a candidate can make on what has been done.' if given another chance what Would a candidate do differently.
- Possible alterations
- Candidates can comment on the following:
sequence under time plan,
the dishes chosen,
how the dish can he made more nutritious
how the colour of the dishes can he changed if need be, etc

NB If a candidate does not qualify statements made mark out of the total.

- Examiners comments

- (summary of the candidate's performance to qualify the marks allocated.)

* **Reminders**

- Candidates must taste and **not eat** during the evaluation exercise.
- Mark evaluation sheets with the products at hand.
- Hygiene and safety is a concern during the practical session.

APPENDIX C

BGCSE Food & Nutrition Preparation Sheets

APPENDIX D

Interview Schedules (Teachers)

HOW SHOULD TEACHERS AND MODERATORS ASSESS HOME ECONOMICS COURSEWORK IN BOTSWANA SENIOR SECONDARY SCHOOLS?

INTERVIEW QUESTIONS: TEACHERS

Name of interviewee.....

Qualification.....

School & Region.....

Time of interview.....

Interview date.....

1. How long have you been teaching?
2. What according to you is assessment?
3. What challenges do you face during assessment of Home Economics in general?
4. Have you been trained to assess or mark Home Economics coursework?
5. What was the duration of the training?
6. How often did you undergo training?
How has the training assisted you as a teacher and examiner?
7. What kind of guidance/support have you received in the past? Was this sufficient?
8. Do you feel you and other teachers could benefit from further training? If so, please detail these training needs.
9. Tell me about the school-based assessment you are involved in as a teacher and Examiner.
10. How are you able to separate the dual role you play as a teacher and examiner?
11. Do you believe coursework assessments are objective and consistent?
12. As an examiner, how do you ensure that standards remain consistent across the group of students you assess?
13. How essential is the marking scheme provided for coursework marking?
14. What according to you are the quality control mechanisms in place?
How are these mechanisms monitored so that they are adhered to?
15. Do you believe the quality control mechanisms in place contribute to objective, consistent and quality assessment information?
16. Is there anything else you would like to add?

APPENDIX E

Interview Schedule (moderators)

HOW SHOULD TEACHERS AND MODERATORS ASSESS HOME ECONOMICS COURSEWORK IN BOTSWANA SENIOR SECONDARY SCHOOLS

INTERVIEW QUESTIONS: MODERATORS

Name of interviewee.....

Qualification.....

School & Region.....

Time of interview.....

Interview date.....

1. How long have you been teaching Home Economics?
2. How long have you been moderating Home Economics coursework?
3. What training have you undergone as a moderator?
4. How long was the training?
5. Where was the training done and by who?
6. What did the training entail?
7. Has the training benefited you as teacher and moderator? If so, state how?
8. Do you feel you and other moderators could benefit from further training? If so, please detail these training needs.
9. What guidelines are given before you start moderating?
10. What do you do as a moderator to ensure that the assessment is as fair as possible?
11. What according to you are the quality control mechanisms in place?
How are these mechanisms monitored so that they are adhered to?
12. Are the quality control mechanisms in place useful or effective? If so, state how?
13. Describe how you adhere to them.
14. How useful is the mark scheme provided for coursework assessment?
15. Describe to me how you separate the dual role you play as a teacher and moderator?
16. What challenges do you encounter in moderating Home Economics coursework?
17. What, if any changes in relation to moderation or assessment of coursework do you consider should be put in place.
18. Do you wish to add something?

APPENDIX F

Interview Schedules (BEC officers)

HOW SHOULD TEACHERS AND MODERATORS ASSESS HOME ECONOMICS COURSEWORK IN BOTSWANA SENIOR SECONDARY SCHOOLS?

INTERVIEW SCHEDULE: SUBJECT OFFICERS (BEC)

Name.....

Position held.....

Qualification.....

Interview date.....

1. Please tell me about yourself?

Prompts: How long have you been teaching before joining Botswana Examinations Council (BEC)?
Why did you leave teaching? What is your post of responsibility with BEC?

2. How many years have you been with BEC?

3. What do your duties entail as an officer with BEC?

4. What training have you undergone to allow you to guide and support examiners?

5. How often does BEC provide training and support to moderators to ensure dependability of assessment?

6. Are moderators registered and accredited?

7. How does BEC check if examiners have indeed acquired appropriate skills and knowledge to conduct assessment effectively?

8. Please describe the moderation procedures in place for BGCSE Home Economics coursework assessment.

9. What moderation model does BEC use to check consistency of judgement?

10. When were BGCSE coursework procedures last reviewed?

11. What does BEC do to overcome deficiencies of teachers, and moderator's judgement?

12. In cases where mark schemes are devised by centres/schools, who checks them for ambiguity and consistent application?

13. What quality control mechanisms are in place during coursework assessment?

14. To what extent do the quality control mechanisms minimize the variations between Examiners marks?

15. What is your opinion with regard to the overall credibility and meaningfulness of coursework?

16. What does the council do when standards vary between centres, or between the moderators?
Themselves?

17. What challenges does BEC face concerning Home Economics coursework assessment?

18. What else would you like to add to this interview?

APPENDIX G

Letter to Ministry of Education

University of Pretoria
Centre for Evaluation & Assessment
Groenkloof Campus
Pretoria

14th May

The Director
Department of Secondary Education
Ministry of Education
P/Bag 005
Gaborone
Botswana

Dear Sir/Madam,

**RE: PERMISSION TO DO RESEARCH IN THREE SENIOR SECONDARY
SCHOOLS FROM THREE REGIONS OF BOTSWANA**

Please refer to the above captioned matter.

I am a Home Economics teacher at Naledi Senior Secondary School and currently on study leave pursuing a post graduate degree at the University of Pretoria (RSA) in Assessment and Quality Assurance under the Government of Botswana scholarship.

The research is entitled “Moderation Procedures for Home Economics Coursework in Senior Secondary Schools of Botswana.”

The purpose of the research is to explore how examiners achieve and maintain high quality assessment during marking and moderation of Home Economics coursework.

I intend doing the investigations in October/November 2007 in the South, South Central and Central regions.

I am enthusiastically looking forward to doing this project and having the opportunity to work with teachers and/or moderators.

I hope to hear from you soon.

Your assistance regarding this matter will be highly appreciated.

Yours faithfully,

Gosetsemang Leepile (Mrs)

APPENDIX H

Letter to the examining body (BEC)

University of Pretoria
Centre for Evaluation & Assessment
Groenkloof Campus
Pretoria

27th September 2007

The Director
Botswana Examinations Council,
P/Bag 70,
Gaborone
Botswana

Dear Sir/Madam,

**RE: PERMISSION TO DO RESEARCH IN BOTSWANA EXAMINATIONS COUNCIL
HOME ECONOMICS.**

Please refer to the above captioned matter.

I am a Home Economics teacher at Naledi Senior Secondary School and currently on study leave pursuing a post graduate degree at the University of Pretoria (RSA) in Assessment and Quality Assurance under the Government of Botswana scholarship.

The research is entitled “Moderation Procedures for Home Economics Coursework in Senior Secondary Schools of Botswana.”

The purpose of the research is to explore how examiners achieve and maintain high quality assessment during marking and moderation of Home Economics coursework.

I intend doing the investigations in October/November 2007 if permission is granted.

I am enthusiastically looking forward to doing this project with the examinations council.

I hope to hear from you soon.

Your assistance regarding this matter will be highly appreciated.

Yours faithfully,

Gosetsemang Leepile (Mrs)

APPENDIX I

Respondents Informed Consent



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

MODERATION PROCEDURES FOR HOME ECONOMICS COURSEWORK IN SENIOR SECONDARY SCHOOLS OF BOTSWANA

16th September 2007

Dear Participant,

I am currently undertaking my Masters Degree in Assessment and Quality Assurance through the University of Pretoria, South Africa. I have completed the coursework component of the programme and I am now undertaking a research project which forms the basis for my dissertation. The aim of this study is to explore how examiners (teachers and moderators) achieve and maintain high quality assessment during marking and moderation of Home Economics coursework.

The results of this study will be used to provide recommendations as to how the moderation process can be improved upon by drawing on your valuable insight. Furthermore, the findings of the study will contribute to a better understanding and implementation of final coursework assessment for Home Economics.

As a participant in this study, your role will be to provide valuable information regarding the training and execution of moderation so as to improve on the current practices if necessary and or to provide suggestions for future examinations.

Data will be collected through interviews, the interviews will take approximately 45 minutes to complete and will be undertaken at a time convenient to you. The interview questions will be provided beforehand and your participation will be voluntary. You can therefore at anytime elect not to participate in the study. The results will be kept confidential and under no circumstances will the identity of the interviewees be revealed.

Your contribution will add value to this study. Please be so kind and sign the attached consent form to acknowledge that you are fully informed and understand the processes and purpose of the study.

Yours sincerely,

Gosetsemang Leepile (Mrs)

S26069823@tuks.co.za

Cell: 0763051505

Informed Consent

I agree to participate in the study on “Moderation procedures for Home Economics coursework in senior secondary schools of Botswana” conducted by Mrs G. Leepile as part of her studies towards a Masters programme in Assessment and Quality Assurance. I will allow her to audio-tape our interview, and use the data collected for the purpose of her dissertation as well as write an academic article.

I understand my rights as a subject and voluntarily consent to participate in this study since she has fully explained what the study is about and why it is being done. My participation in this phase of the study does not obligate my participation in the follow up interviews that may take place.

I understand that I will receive a signed copy of this consent form.

Participant’s signature.....: Date.....:

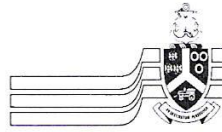
Witness.....

Researcher’s signature.....: Date.....:



APPENDIX J Ethics Clearance Certificate

ANNEXURE I



UNIVERSITY OF PRETORIA
FACULTY OF EDUCATION
RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE

CLEARANCE NUMBER : CS07/11/01

DEGREE AND PROJECT

M.Ed Assessment and Quality Assurance in Education and Training
Moderation procedures for home economics coursework in senior secondary schools of Botswana.

INVESTIGATOR(S)

G Leepile - 26069823

DEPARTMENT

Curriculum Studies

DATE CONSIDERED

25 January 2008

DECISION OF THE COMMITTEE

APPROVED

This ethical clearance is valid for 2 years from the date of consideration and may be renewed upon application

**CHAIRPERSON OF ETHICS
COMMITTEE**

Dr Salomé Human-Vogel

DATE

25 January 2008

CC

Dr V Scerman
Mrs J Beukes

This ethical clearance certificate is issued subject to the following conditions:

1. A signed personal declaration of responsibility
2. If the research question changes significantly so as to alter the nature of the study, a new application for ethical clearance must be submitted
3. It remains the students' responsibility to ensure that all the necessary forms for informed consent are kept for future queries.

Please quote the clearance number in all enquiries.