



BOTSWANA
EXAMINATIONS
COUNCIL

EXAMINERS' PERCEPTION OF 2007 MARKING EXERCISES.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	v
EXECUTIVE SUMMARY	vi
Project objectives	vi
Procedure.....	vi
Outcome	vi
Recommendations.....	viii
1.0 INTRODUCTION	1
1.1 Background to the Study	1
1.2 Objectives for the Project	2
2.0 STUDY PROCEDURES	3
2.1 Population of interest	3
2.2 Instrumentation	3
2.3 Data Collection	3
2.4 Data Analysis.....	3
3.0 RESULTS AND DISCUSSION	4
3.1 Background of the Examiners	4
3.1.1 Sex	4
3.1.2 Marking experience	4
3.2 Professionalism in Marking	6
3.2.1 Time for standardisation and marking	6
3.2.2 Competency and professionalism of examiners.....	9
3.2.3 Errors in marking	10
3.2.4 Marking Exercise and Professional Development.....	10
3.3 MANAGEMENT OF THE MARKING EXERCISE	13
3.3.1 Invitation Letters	13
3.3.2 Quality of Marking Venue and BEC Staff.....	13
3.3.3 Catering	13
3.3.4 Travelling Claims	13
3.3.5 Informal Dressing.....	14
3.4 HOW MARKING CAN BE IMPROVED.....	15
4.0 SUMMARY AND CONCLUSIONS.....	16
5.0 RECOMMENDATIONS	17
6.0 Appendices	19

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EXECUTIVE SUMMARY

Project objectives

The marking of Junior Certificate and Botswana General Certificate Examination scripts takes place annually during the first two weeks of December. The first two days are mainly used for standardisation, so that effective marking utilises the remaining days. Examiners work hard, starting quite early in the morning and ending late. Schools are used as the marking venues while catering is out-sourced.

A short questionnaire was administered to find out the views of the examiners about the marking exercise. Specifically, it was designed to find out if:

- examiners feel there is professionalism in the exercise that would convey confidence that the work of the candidates was assessed properly
- examiners feel that the marking exercise was properly managed.

Procedure

The 2007 marking of JCE and BGCSE scripts took place in four venues around Gaborone. A short questionnaire was distributed to marking centres to be completed by the examiners after marking and handed over to centre coordinators. The number of examiners expected to respond was 3070 (1695 for JCE and 1375 for BGCSE).

To explore professionalism, examiners were asked if they were satisfied with the time available for standardisation and marking, if they thought the senior examiners were competent in their work and they themselves were dedicated to the exercise to the extent that they felt marking was of value to them and that they applied themselves so that there were no errors in the marks assigned to candidates.

Examiners expect to be invited to the exercise in good time. A comfortable marking venue where ventilation, seats, catering would be desired. The staff of Botswana Examinations Council, as the organisers of the exercise, would be expected to be efficient, and courteous. These are minimal considerations that were explored to address management issues.

Outcome

A total of 1348 examiners completed the questionnaire. There were 766 female and 499 male examiners, with 6% who did not indicate their sexes. Out of a total of 797 JCE examiners, 519 were females, while there were 247 female examiners at BGCSE out of 468. Sex consideration is important in planning for facilities such as ablutions at the marking venue.

An examiner who has marked for 3 years and above is considered experienced and on the basis of this criterion about 36% of the examiners were not experienced. Reasons for shortage of experienced examiners could be due to promotion or change of jobs. These reasons should be established more systematically so that the Council could act on aspects that can be remedied in order to improve retention of examiners.

Examiners of some subjects indicated that they did not have enough time for standardisation and for marking. In this study, where 50% or more of the examiners indicated inadequate time for marking or standardisation, such a subject was noted as problematic. At JCE, examiners for Setswana, Business Studies, and Religious Education indicated that they did not have sufficient time for standardisation. At this level, examiners

for Setswana, Business Studies and Integrated Science indicated that they did not have enough time for marking.

At BGCSE, Setswana and English language examiners indicated inadequate time for standardisation. Time was not enough for marking Setswana, Science: Double Award, Human and Social Biology, Social Studies and Development Studies.

Insufficient time for either standardisation or marking is a serious threat to the accuracy of the marks assigned to candidates. The situation of subjects with inadequate standardisation and marking time need to be looked at closely and remedied where there are real deficiencies. The shortage of marking time could be solved by employing more examiners to compensate for lost time during standardisation. Setswana stands out as a subject that needs attention for both standardisation and marking at both the JCE and BGCSE levels. Examiner retention should also improve efficiency of marking and possibly reduce the time required for marking. Examiners at JCE should also be trained like the BGCSE examiners so as to improve their efficiency at marking.

Examiners take marking as a professional activity that helps in their development. They believe that senior examiners are competent in their work. One worry is that over 50% of them believe that despite all the checks put in place, there are some errors that could slip through. Examiners should feel their work is perfect. For such a large number of examiners to admit the possibility of errors is a pointer to the Council that something should be done. A simple start could be made by deploying independent checkers, just to verify the concerns of the examiners. A systematic study of marking accuracy should also be entered into.

The management of the exercise is done properly, except for what is beyond the Council. Invitation letters are sent early to examiners. Council staff are friendly and helpful, although 41% responded to the contrary. BEC staff also performed well on the following: introduction of user friendly claim forms, banking facility and the provision of stationery on time.

However, examiners are unhappy with the venues. They would like to mark in air-conditioned rooms or rooms with more fans. The chairs they sit on are too hard and therefore they prefer cushioned ones. Catering is efficient and friendly, but the food is not delicious and nutritive. Up to 84% of them are not happy with the speed of processing their traveling claims. Most examiners would prefer casual dressing during the marking period. They made many suggestions to the Council, including:

1. a conducive marking environment, with tight security.
2. increased marking and standardisation fees.
3. checking and entry of marks into marksheets by different individuals not examiners.
4. increase in standardisation time
5. timely processing of claim forms by BEC.
6. training before marking for JCE examiners
7. regulating working times as 0730hrs to 1630hrs.

Subject specific suggestions were also made, such as provision of calculators and mathematical set of instruments for Mathematics, and assistance in stamping the criteria for ease of marking Setswana.

Recommendations

This was a limited study which was further constrained by the fact that responses were not received from over 50% of the examiners who were present. However, it has helped to flag out certain issues that can be acted on or investigated further. Among the recommendations made from the study are:

1. Those subjects that need more time for either standardisation or marking should train more examiners to compensate for time needed.
2. Institute a small independent group to verify accuracy of additions and transcription of marks
3. Conduct a study on marking accuracy
4. Speed up the processing of traveling claims
5. Train JCE examiners
6. Maintain smart casual/formal dressing and sensitise examiners on implications of informal dressing
7. Revise standardisation and marking fees with the view to increase

1.0 INTRODUCTION

1.1 Background to the Study

Botswana Examinations Council (BEC) is charged with the responsibility of conducting school examinations and any other examination as desired by the Ministry of Education. In executing this responsibility, BEC employs staff as the secretariat to plan, organise and execute its work. The principal activities ostensibly carried out are product development, the administration of examinations and research. Concurrently going on, but much less visible in the public eye, are information technology and communication(ICT) work, human resource and financial management.

While ICT, human and financial management works are largely handled by BEC secretariat staff, with networking and partnership as necessary, the performance of product development, examinations administration and research inevitably requires a large number of players who are not regular employees of BEC. A large number of teachers are involved in the writing of items. Some of this work with BEC staff up to the point of preparing question papers. Collecting research data often requires the cooperation and participation of a large number of teachers.

However, the activity that requires the largest number of non-BEC staff members, albeit for short periods of time, is the administration and marking of examinations. Starting from registration, the cooperation of all centre supervisors is essential to ensure that each candidate is registered according to regulations. Administration of examinations to candidates would not be possible without the involvement of heads of centres, teachers and security personnel. This exercise starts with moderators of coursework, many of whom spend days travelling from centre to centre. Finally there comes a time for marking the written work of the candidates.

The marking of examination scripts is a centralised activity. So far, examiners are invited to Gaborone. They find their own accommodation and report to marking venues each morning. A day's working time theoretically is scheduled from 0730hrs to 1630hrs. In practice, because there are only two weeks for marking, examiners start to report at marking centres by 0600hours and stay on till 2200hours. Examiners who mark the Junior Certificate and the Botswana General Certificate of Education Examination scripts are over 3000. This is a large number of people to recruit, manage and make payments to.

1.2 Objectives for the Project

In order to perform any task properly, persons of the correct qualification and experience have to be engaged. This study concentrated on a brief evaluation of the marking exercise. A limited number of issues were focused on in order to kick-start research in this area. The study objectives were directed at the following:

1. Do examiners feel there is sufficient professionalism in the marking exercise?

Professionalism requires that examiners of the right qualifications and experiences need to be employed. They should be given sufficient tools to carry out the exercise while they themselves should be dedicated to the work, with firm belief in the value and purpose of the exercise.

2. Are there areas where examiners feel the marking exercise could be managed better?

Management of large numbers of people is always a challenge. It is even more difficult where the groups come together for a brief period of time and execute a very demanding job. They need to be settled in a conducive venue, taken good care of by meeting all their reasonable needs. Examiners would have views of deficiency in the way they are managed if this ideal is not met.

The required data for addressing these questions were obtained by administering a questionnaire to the examiners.

2.0 STUDY PROCEDURES

2.1 Population of interest

The evaluation exercise was intended to cover all examiners at JCE and BGCSE levels. Examiners are mainly teachers who have been in the service for over three years. Examiners at BGCSE are trained before they are allowed to score candidates work. JCE examiners are not trained before they could mark. The training of examiners at BGCSE is a requirement since this examination is accredited by the Cambridge International Examinations (CIE). About 1375 examiners turned up for BGCSE and 1695 for JCE marking. There were four marking venues for the two levels of examination.

2.2 Instrumentation

The instrument for data collection was a questionnaire soliciting biographic data and 15 statements on 4-level Likert scale format of Strongly Agree to Strongly Disagree. The 15 statements sought to elicit the respondents on issues of value of the marking exercise, welfare, and marking administration. There were two open response questions, which allowed examiners to give their opinions on how the marking exercise could be improved and what was handled properly during the marking session.

2.3 Data Collection

The questionnaires were distributed to the examiners at the marking venues. The examiners were expected to fill these up and hand them in at the end of marking. There were cases where in some subjects the return rate was zero. Coordination arrangement for collection of the instrument did not work efficiently, hence some completed instruments did not reach the office.

2.4 Data Analysis

The data was subjected to simple frequency distributions, except for the open items where the different types of responses were tallied and rank ordered.

3.0 RESULTS AND DISCUSSION

3.1 Background of the Examiners

3.1.1 Sex

This was a census study targeting 1695 JCE examiners and 1375 BGCSE examiners. Twelve out of sixteen subjects at JCE and fifteen out of twenty seven subjects at BGCSE provided responses (see appendix A). A total of 1348 examiners completed the questionnaire. The response rate for JCE was 50% and for BGCSE was 36%. Respondents were further segregated according to sex as shown in Table 1.1. There was no information regarding the number of males and females examiners invited.

Table 3.1 *Numbers of Respondents by Sex.*

Level	Respondent Sex		Total
	Male	Female	
JCE	278	519	797
BGCSE	221	247	468
TOTAL	499	766	1265

The number of examiners whose responses were received and specified their sexes was 1265. Of these, 797 (63.0%) were JCE examiners and 468(37.0%) were BGCSE examiners. The majority of the respondents were females (57%) compared to (37%) males. However, 6% did not indicate their sex. Knowing the sex composition of the examiners is important for planning for facilities at the marking venue.

3.1.2 Marking experience

Marking is a technical exercise which requires experience besides mastery of the subject. Table 3.2 indicates that in some subjects over 50% of the examiners have marked for less than three years.

Table 3.2 Percentages of examiners with less than 3 years marking experience per subject

JCE		BGCSE	
Subject	%	Subject	%
Commerce and Office Procedures	61	Agriculture	61
Mathematics	56	Food & Nutrition	33**
Home Economics	61	Science: Double Award	42
Moral Education	53	Literature in English	44
Religious Education	52	English Language	35
Agriculture	44	Social Studies	23
English	27	Business Studies	42
Design & Technology	24	Mathematics	28
Integrated Science	14	Design & Technology	31
French	22	Setswana	30
Setswana	21	Geography	14
General Science	0	Development Studies	10
		Science: Single Award	6
		Computer Science	0
		Human and Social Biology	0**

** Very few respondents

In this study, experience of three years is taken as adequate for effective marking. In JCE the following subjects have more than 50% of inexperienced examiners: Mathematics, Commerce and Office Procedures, Home Economics, Moral Education and Religious Education. In BGCSE the subject with more than 50% is only Agriculture. Various factors could have contributed to the situation of having inexperienced examiners. It is essential to establish the reason why there are so many examiners with less than three years of experience especially that some of the affected subjects have been in existence for some time. Some of the salient reasons for more inexperienced examiners which cut across the subjects are increase in candidature from year to year and promotions to senior teacher posts. Reasons advanced which are subject-specific are discussed below:

BGCSE Agriculture: introduced specialised marking that is, when one marks course work, then he/she is not eligible to mark other components.

JCE Mathematics: All examiners who were on the reserve list were invited instead of filling up spaces for only those who indicated that they won't turn up for marking.

JCE Home Economics: The list that had been drawn up was not adhered to.

JCE Commerce and Office Procedures: most examiners were expatriates whose contracts expired while some citizen teachers went for further studies.

3.2 Professionalism in Marking

3.2.1 Time for standardisation and marking

The marking exercise is a critical activity because it translates what a candidate has presented into a level of achievement. The work must therefore be handled by qualified examiners with competent leaders. Sufficient time must be given for standardisation and actual marking. Table 1.3 presents information on the adequacy of time for the standardisation and marking.

A frequency of 50% or above was taken as expressing an agreement or disagreement with the given statement. On the basis of this, in JCE subjects, standardisation time was said to be adequate except for Commerce and Office Procedures, Setswana and Religious Education. For BGCSE, time for standardisation was thought to be inadequate for English Language and Setswana Table 1.3 lists the subjects at each examination level by adequacy of standardisation time.

Table 3.3 *Adequacy of standardisation time by examination level*

Examination Level	Time for Standardisation	
	<i>Adequate</i>	<i>Inadequate</i>
JCE	English Mathematics Agriculture Design and Technology Moral Education Home Economics French General Science Integrated Science	Religious Education Setswana Commerce and Office Procedures
BGCSE	Mathematics Science: Single Award Geography Literature in English Design and Technology Computer Studies Agriculture Science: Double Award Human and Social Biology Development Studies Business Studies	English Language Setswana Food and Nutrition

The time available for marking examinations is about two weeks after schools closed in term three. Examiners work extra hard to complete the marking within the stipulated time. Examiners in some subjects reported that the time for marking was inadequate, while others felt the time for marking the scripts was sufficient. Overall 55 % of the respondents indicated that the time for marking was enough. In the free response section, most examiners advocated for increase in marking time. Table 1.4 lists the subjects at each examination level by adequacy of marking time.

Table 3.4 *Adequacy of marking time by examination level*

Examination Level	Time for Marking	
	<i>Adequate</i>	<i>Inadequate</i>
JCE	English Mathematics Agriculture Design and Technology Moral Education Home Economics French General Science Religious Education	Setswana Commerce and Office Procedures Integrated Science
BGCSE	English Language Mathematics Science: Single Award Geography Literature in English Design and Technology Computer Studies Agriculture Business Studies	Social Studies Setswana Food and Nutrition Science: Double Award Human and Social Biology Development Studies

At JCE, examiners in Setswana, Integrated Science and Commerce and Office Procedures responded that time given was not enough for marking. Among the subjects at BGCSE where examiners reported inadequate time for marking were Setswana, Science: Double Award, Social Studies and Development Studies.

Table 3.5 presents this cross-tabulation of subjects by adequacy of time for both standardisation and marking. Appendix B lists the subjects by adequacy of time for both standardisation and marking with percentages of agreement and disagreements

Table 3.5 *List of subjects by adequacy of both standardisation and marking time*

Standardisation Time		Examination Level	Marking Time	
			Adequate	Inadequate
	Adequate	JCE	English Mathematics Agriculture Design and Technology Moral Education Home Economics French General Science	Integrated Science
		BGCSE	Mathematics Science: Single Award Geography Literature in English Design and Technology Computer Studies Agriculture Business Studies	Science: Double Award Human and Social Biology Social Studies Development Studies
	Inadequate	JCE	Religious Education	Setswana Commerce and Office Procedures
		BGCSE	English Language	Setswana Food and Nutrition

Subjects in which examiners report both inadequate times for standardisation and for marking should be noted. Examiners are flagging these subjects as possible areas of difficulty and therefore needing attention.

At JCE, Setswana and Commerce and Office Procedures are the only subjects indicated by most respondents as needing extra time for both marking and standardisation. Setswana examiners at BGCSE reported that they do not have enough time for both standardisation and marking. For example, according to BGCSE Setswana Officer, the marking guide is demanding as the paper has a lot of options, thus taking a long time to standardise and also internalising the marking guide. A solution would be to increase the number of examiners.

The JCE subjects that present a happy front for having enough time for both standardisation and marking include Mathematics, Agriculture, Home Economics and French while at BGCSE such subjects include, Mathematics, Science: Single Award, Computer Studies and Design and Technology. It should be established why examiners in these subjects find the time adequate for standardisation and marking. Perhaps the principles they use can help solve the problems in subjects where standardisation and marking time is inadequate.

3.2.2. Competency and professionalism of examiners

Effective and efficient marking of scripts requires senior examiners who are competent in the subject area, as well as experienced in marking procedures, have planning, management and leadership skills. The examiners themselves have to be knowledgeable in the subject matter, understand and apply the marking schemes appropriately as well as be committed to the importance of marking as a procedure for evaluating the achievement of real human beings, not just scripts. The application of the marking scheme has to be adhered to throughout the marking period, regardless of pressure for completion time, irrelevant distractions like hand-writing, self expression, etc by candidates.

Overall 89 % of the examiners reported that their senior examiners were competent. The views of the 11 % need not be dismissed summarily, but the subjects involved should be noted. At JCE level, 100 % of the examiners in Commerce and Office Procedures and French responded that their senior examiners were competent. For BGCSE the same percentage was reported for Science: Single Award, Development Studies, Design and Technology. The percentage of examiners who responded they were professional in their work is 89 %; again the views of the 11 % of the respondents who did not agree that examiners were professional in their work should be explored further.

3.2.3 Errors in marking

The credibility of an examination depends on each candidate's performance level being assessed with maximum care and accuracy. This is attained through competent and professional examiners. No examinee's achievement is expected to be reported with error. When errors do occur it becomes worrisome as people will begin questioning the integrity of the examination. This level of perfection is not always attained. At JCE, 54 % of examiners perceived that some errors could have slipped through even with checking of each others' scripts. On the other hand 46 % of the BGCSE examiners also agreed that there are some errors in marking.

More than 50% of the respondents in the following JCE subjects reported that there are errors in marking English, Integrated Science, Agriculture, Design and Technology and Religious Education while in BGCSE the subjects are Mathematics, Human and Social Biology, Social Studies and Literature in English. It should also be noted that some of the subjects reporting adequate time for standardisation and marking are admitting the possibility of error slipping through.

The questionnaire does not provide for exploring the sources of error that worry examiners. Errors could come from failure to apply the marking scheme appropriately, arithmetical operations and at the stage of transcription of marks from the scripts to the mark sheets. Because of the implications of errors to the fate of the candidates, a subsequent study should investigate the sources of these errors.

3.2.4 Marking Exercise and Professional Development

The marking exercise engages an examiner in discussion with colleagues as to what candidates are expected to achieve and what is considered important in learning acquisition. This should therefore serve as an in-service training which sharpens a teacher for better performance in the classroom. The fact that 96% of the respondents at JCE and 95% at BGCSE indicated that participation in marking helps them in their professional and personal development, is an indication that teachers do not agree to mark merely for payment but for development. As a matter of fact JCE examiners indicated that they should be trained in marking just like the BGCSE examiners. This would help them with skills of applying the marking scheme better.

Teachers naturally convert the scores of their students into grades. JCE examiners are asked to follow a grading procedure and come up with recommendations of marks for key grades A, C and E. Out of the JCE examiners who responded, 58 % indicated that they did not fully understand judgmental procedure while at BGCSE, it was 34 %. These processes should be thoroughly explained to examiners to assist them to set grade thresholds at the end of the marking exercise.

3.2.5 Average Scripts marked by Examiners, Team leaders and Principal Examiners

Table 3.5 *List of subjects by adequacy of both standardisation and marking time*

Average Scripts marked		
SUBJECT	Examiner	Team leaders and Principal examiner
Religious Education	234	366
Human and Social Biology	251	339
Agriculture	283	306
Business Studies	451*	535*
Computer Studies	343	229
Accounting	521*	710*
Geography	427	445
Mathematics Component 2	619*	720*
Physics	452	269
Physical Education	348	396
Mathematics Component 1	733*	676*
Design and Technology	294	232
Commerce Component 2	483*	646*
Double Award Component 4	409	384
English Literature	283	206
English Language Component 2	396	441
Biology Component 4	505*	400
Home Management, Food and Nutrition	188	212
Mathematics Component 3	482*	322
Science Single Award Component 4	428	265
Science Single Award Component 3	546*	425
Setswana Component 1	410	435
Setswana Component 2	551*	519*
Setswana Component 3	483*	726*
Science Single Award Component 2	414	274
Biology Component 3	459*	285
Physics Component 2	407	345
Chemistry	482*	595*

* This indicates a very high number of scripts scored by both the examiners and their supervisors

It could be seen that in some subjects, examiners score on average in excess of 400 scripts and their supervisors sometimes review far more than that. Components and subjects differ in their demand in scoring, but there is a reasonable expectation on the number of scripts an examiner could mark in 10-12 days. It may be time that BEC looks at this issue in light of the examiners responses that indeed there are errors that slip through during marking. The asterisk indicates number of scripts scored by both the examiners and their supervisors considered to be high given the two-week marking period. This high numbers may compromise both the scoring of the candidate script and its review. The Directorates of Examination Administration and Certification and Product

Development and Standards may want to look at this issue closely. As one can note, this list does not include all the subjects at BGCSE and no JCE subjects

3.3 MANAGEMENT OF THE MARKING EXERCISE

3.3.1 Invitation Letters

About 90% of the examiners received their invitation letters on time. They appreciated this as it is among the things BEC did well.

3.3.2 Quality of Marking Venue and BEC Staff

Marking venues has been a concern of Botswana Examinations Council since school facilities are not ideal for marking. Overall, 76% of the examiners reported that the venues used were not conducive for marking. They suggested that they need air conditioned rooms (or more fans) and cushioned chairs.

Overall 59% of the examiners reported that BEC staff was friendly and helpful. This was further analysed according to venues. The percentage of examiners appreciating BEC service at one venue was 64 and at two venues the percentage was 61. One of the four venues had only 35% of the examiners agreeing that BEC staff was friendly and helpful. It is suggested that BEC should intensify on customer service both on its permanent and temporary staff so that there should be improvement in relating with examiners.

3.3.3 Catering

About 60% of the examiners reported that the catering company staff was efficient and friendly, while 38% disagreed. Regarding the nutritiveness and adequacy of food, 42% agreed while 55% disagreed. Catering was further divided into venues as shown in Table 3.6

Table 3.6 *Good quality food vs preference of own food*

Venue	Good Quality Food		Own Food Preferred	
	% Disagree	% Agree	% Disagree	% Agree
1	45	53	50	48
2	58	36	51	45
3	60	37	47	51
4	57	42	38	61

Centres which do not like the quality of food served preferred to cater for themselves. The data reveal that despite lack of quality, only 51% of the examiners prefer their own catering. This is a small window through which the seriousness of examiners can be assessed. Knowing that own catering takes time in search of food; it would be beneficial to BEC if more effort is devoted to improving catering in some of the centres. Perhaps BEC should standardise menus so that quality could be comparable.

3.3.4 Travelling Claims

One problematic area BEC has to deal with during the marking is the processing of the claims of the examiners. The time is short, but the examiners would wish they are paid back what they spent on travelling upon completion of marking.

Claims are not paid as they come from the claimants. The claims must be checked and approved. The sheer number of examiners makes this task a gigantic exercise. The only way at the moment is to refund the examiners through their banks when all the checking is completed.

Examiners are not entirely happy with this as 84 % of the respondents said that the processing of travelling claims was not effective and efficient. This is an area which they also suggested that BEC should improve on.

3.3.5 Informal Dressing

Most of the examiners are teachers or education officers. They are used to formal dress codes. They feel that during marking the formal dressing requirement should be relaxed as 60% of them said that they should be allowed to put on informal dressing instead of smart casual or formal wear compared to 38 % who disagreed. According to sex, the percentage of males and females who supported the statement was 62 % and 59 % respectively. If the idea of smart/casual wear is relaxed, there could be all sorts of dressing standards at marking venues.

3.4 HOW MARKING CAN BE IMPROVED

The examiners appreciated that they were invited on time. BEC also performed well on the following: introduction of user friendly claim forms; banking facility and the provision of stationery on time.

However, for future improvements of the marking exercise the examiners suggested the following in rank order:

- A conducive marking environment that is comfortable, cushioned chairs, air conditioned rooms or have many fans. This is also accompanied with tight security.
- Increased marking and standardisation fees.
- Checking and entry of marks into marksheets should be done by different individuals not examiners.
- Standardisation time should be increased for some subjects.
- There should be timely processing of claim forms by BEC.
- JCE examiners need training before marking.
- Regionalise subjects when marking to avoid congestion in one place.
- Have a resting day as marking is a strenuous exercise.
- Standardise working times from 0730hrs to 1630hrs.
- Same tax amount for all examiners or abolish tax.

Other suggestions are subject-specific like provision of calculators and mathematical set of instruments for Mathematics, and an assistant in stamping the criteria for ease of marking Setswana.

4.0 SUMMARY AND CONCLUSIONS

It has already been noted that the response rate in this study was low. The conclusions reached should therefore be supplemented with observations of officers who manned the marking venues. Similarly the recommendations made should be scrutinised alongside experiences that have been accumulated over the years.

The major outcomes of the study are listed below. The major conclusions reached are summarised below.

1. The majority of the examiners are female, particularly at the JCE.
2. In some subjects more than 50% of the examiners are inexperienced due to various reasons such as yearly increase of candidature, further studies, promotion of teachers to managerial positions, non-renewal of contracts of expatriate teachers, etc.
3. The time for standardisation is not enough for some subjects. Similarly, examiners reported a few subjects where they felt the time for marking was insufficient.
4. Examiners for Setswana at both JCE and BGCSE felt that they did not have enough time for both standardization and marking. Although the respondents were less than 50% at BGCSE, the subject officer advanced reasons inherent in the marking scheme, leading to slower standardisation and marking speed. Respondents in Commerce and Office Procedures at JCE also reported lack of sufficient time for both standardisation and marking. This finding tends to suggest that these subjects could have a higher propensity to error in trying to complete marking within the stipulated time.
5. Examiners feel that there could be some errors which slip through despite the checks they put into the exercise. There is therefore a strong suggestion that a study should be conducted to assess the extent of errors that slip through.
6. The marking exercise is valued by examiners for providing professional and personal growth to them. They also feel that their leaders are competent enough to handle the exercise well.
7. Examiners are not happy with the environment they operate in. They need a secure location, with air-conditioned rooms and cushioned chairs.
8. The general concern of examiners is that the current standardisation and marking fees across the board are low, hence the call for an increase. They also want scoring and clerical work (checking, mark entry and shading) to be done by separate groups of individuals.
9. Though a number of subjects complete marking within the stipulated time, examiners strongly feel that they are overstretched, hence suggested either they work within standardised time (0730-1630hrs) or be given a resting day in between.
10. Examiners appreciated the introduction of the user friendly claim form and the new banking facility. However, they were not happy with the time it takes to process the claims. They were also happy that invitation letters were sent to them in good time. Catering was generally satisfactory, except for one venue. The nutritive value of the food served could be improved. About 51% of the examiners prefer own catering.
11. The majority of examiners prefer to come to marking dressed informally.

5.0 RECOMMENDATIONS

1. **Take corrective action to ensure all subjects have sufficient standardisation and marking time.** Those subjects that critically need more time for standardisation and marking could deploy more examiners to reduce marking time thus compensating for time needed in standardisation. Marking schemes that are complicated become difficult for all examiners to comprehend and apply, resulting in marking errors.
2. **JCE examiners should be trained.** JCE examiners are not trained. Although after two or three years of marking, a keen examiner could acquire the technicalities, we recommend that examiners at this level be trained as the BGCSE. There is a lot that can be imparted to examiners during a session designed specifically for training. Otherwise they may bring to the marking exercise the practices they implement in their individual schools. Trained examiners are more likely to grasp marking schemes faster and that may improve on the speed of marking.
3. **Deploy a separate group of individuals to study possible clerical errors.** It is possible for examiners to make clerical errors, such as addition, and transcription from the scripts onto the mark sheets. The extent of this kind of error should be established by deploying a group of checkers to check on the work of the examiners.
4. **Carry out marker consistency study.** Clerical checking can establish whether there are errors in the handling of marks assigned by examiners, but it cannot establish whether the marks were correctly assigned. A study should be designed and executed for this purpose.
5. **Establish a database for examiners.** Electronic database for examiners should be created. This will facilitate monitoring of the examiners in terms of their experiences, invitation letters, and biographical data.
6. **Put into place a machinery for rapid processing of claim for ms.** Examiners need to get back the money they have spent as rapidly as possible. A layer of staff could be put in place to carry out checking of the accuracy of the claims before submitting to the authorising officer. One office alone cannot check all the forms within the short time.
7. **Work on ways to reduce examiner fatigue.** Marking is a taxing exercise. Long hours of work could lead to examiner fatigue, which induces error. We recommend deployment of sufficient examiners so that marking for long hours does not become necessity to complete marking within the available time. Time off for all examiners should be explored for implementation on a Saturday or Sunday when the marking is halfway through.
8. **Examiners should dress decently.** The smart casual/formal dressing should be maintained. If a patient walks into a hospital and finds a shabby looking doctor, his/her confidence in the treatment may go down. No candidate or parent would believe that an examiner who is not decently dressed is evaluating the work of candidates with seriousness.
9. **Revise standardisation and marking fees.** It is important to review fees paid to examiners to ensure that what they get is competitive. It is granted that no amount of money will ever be enough for any group of workers, but evaluating the reward for labour from time to time is a useful management strategy.
10. **Revisit the issue of taxation.** Examiners contend that the same amount of effort should be taxed the same for examiners. Marking a script is theoretically equally demanding for all examiners. Taxing an examiner at a higher income bracket higher than an examiner at a lower income bracket for the same script is difficult for examiners to comprehend, despite the legal requirement for taxation. Senior examiners should not be paid per script marked, but they should be given flat fees commensurate with their responsibilities. This is working very well for TIMSS and it also worked for Standard Four project. The fees should be set at such a level that an examiner paid for scripts marked cannot take home more money than the senior

examiners. This will settle the issue for the most capable and perhaps most experienced examiners. Additional appeal could be made to BURS to waive taxation on what is paid for marking, though we see this as not being easily acceptable.

11. **A Limit to the number of scripts an examiners could score during the marking period:** it may be time that DEA & C with the assistances from DPD & S come up with a script limit by demand by subject/component. Some team leaders and principal examiners review more scripts than what an examiner could score, this is not desirable and could compromise standards.
12. **Conveyer belt scoring:** DEA & C could explore the possibility of employing scoring a script by the use of different examiners. This could assist in the languages where an examiner has to have read and understood the themes of more than five books. This could greatly assist in reducing errors in scoring.

6.0 Appendices

Appendix A. *Number of respondents and actual number of examiners present at JCE and BGCSE marking*

JCE Subject	Respondents	Expected Examiners	Response rate%
Setswana	143	273	52.4
English	122	337	36.2
Mathematics	133	198	67.2
Integrated Science	99	142	69.7
Agriculture	61	127	48.0
Design and Technology	37	52	71.2
Moral Education	109	133	82.0
Home Economics	38	44	86.4
Commerce and Office Procedures	17	31	54.8
Religious Education	77	91	84.6
French	9	10	90.0
General Science	4	5	80.0
Social Studies	0	171	0
Physical Education	0	69	0
Music	0	12	0

BGCSE Subject	Respondents	Expected Examiners	Response rate%
English Language	127	184	69.0
Setswana	86	214	40.2
Mathematics	54	132	40.9
Science: Single Award	18	39	46.2
Science Double Award	38	147	25.9
Chemistry	0	30	0
Physics	0	34	0
Biology	0	30	0
HSB	3	8	37.5
History	0	45	0
Geography	29	91	31.9
Social Studies	22	46	47.2
Development Studies	29	55	52.7
Literature in English	9	12	75
Religious Studies	0	3	0
Design and Technology	16	18	88.9
Art & Design	0	21	0
Computer Studies	4	16	25
Commerce	0	66	0
Agriculture	49	54	90.7
Food & Nutrition	3	16	18.8
Fashion and Fabrics	0	9	0
Home Management	0	11	0
Accounting	0	18	0
Business Studies	12	20	60.0
Physical Education	0	10	0
CRE	0	46	0

Appendix B: Inadequacy of time for standardisation and marking

	Inadequate time for standardisation		Adequate time for marking	
JCE	% Disagree	% Agree	% Disagree	% Agree
Setswana	49	50	55	45
English	59	39	39	60
Mathematics	83	17	29	70
Integrated Science	56	41	76	23
Agriculture	72	28	45	55
Design & Technology	65	35	11	89
Moral Education	68	28	28	68
Home Economics	82	18	44	56
Commerce and Office Procedures	41	59	88	12
Religious Education	48	52	44	56
French	89	11	0	100
General Science	100	0	25	75

BGCSE	% disagree	% agree	% disagree	% agree
English Language	48	51	48	50
Setswana	48	50	59	36
Mathematics	61	37	44	50
Science: Single Award	72	22	11	89
Science: Double Award	66	32	50	47
Human and Social Biology	100	0	67	33
Geography	79	21	14	83
Social Studies	45	27	91	9
Development Studies	66	31	52	45
Literature in English	67	22	33	56
Design and Technology	69	31	25	75
Computer Studies	100	0	0	100
Agriculture	65	35	35	65
Food and Nutrition	0	100	67	33
Business Studies	58	42	42	50

In some cases, totals do not add up to 100 because of missing cases

Appendix C: BGCSE and JCE Inadequacy of time for standardisation per subject component

BGCSE Subject	Component 1		Component 2		Component 3		Component 4	
	agree	disagree	agree	disagree	agree	disagree	agree	disagree
English	66	32	32	68	-	-	-	-
Setswana	79	21	23	74	76	21	-	-
Mathematics	47	53	23	73	-	-	-	-
Geography	25	75	-	-	15	85	-	-
Social Studies	60	40	53	47	-	-	-	-
Development Studies	38	50	29	71	-	-	-	-
Literature in English	22	67	-	-	-	-	-	-
Design and Technology	31	69	-	-	-	-	-	-
Food and Nutrition	100	0	-	-	-	-	-	-
Business Studies	33	67	50	50	40	60	-	-
Science: Single Award	-	-	18	82	-	-	29	57
Human and Social Biology	-	-	0	100	-	-	-	-
Computer Studies	-	-	0	100	0	100	-	-
Agriculture	-	-	35	65	-	-	-	-
Science: Double Award	-	-	-	-	32	66	-	-

JCE Subject	Component 1		Component 2		Component 3		Component 4	
	agree	disagree	agree	disagree	agree	disagree	agree	disagree
Setswana	-	-	44	56	51	47	-	-
English	-	-	10	90	46	53	33	64
Mathematics	-	-	17	83	-	-	-	-
Integrated Science	-	-	41	56	-	-	-	-
Agriculture	-	-	28	72	33	67	-	-
Design and Technology	-	-	35	65	-	-	-	-
Moral education	-	-	28	68	-	-	-	-
Home economics	-	-	18	82	-	-	-	-
General Science	-	-	0	100	-	-	-	-
Religious Education	-	-	52	48	-	-	-	-
French	11	89	-	-	-	-	-	-
Commerce and Office Procedures	-	-	-	-	59	41	-	-

