



Whole Script or Conveyor Belt Marking? Exploring the Way Forward for Public Examinations in Eswatini

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DOI: 10.53103/cjess.v6i1.455

Abstract

Without educational assessment, learning outcomes are hardly realised; and even if by chance they do, stakeholders fail to prove such milestones because their attainment remains fuzzy. Unreliable marking can make the difference between candidates getting the grade they deserve and a grade that does not reflect their knowledge and skills, and that difference can be life – changing. Good assessments of learning are a product of reliable processes, such as marking. This paper attempted to evaluate the Conveyor Belt and Whole Script Systems of marking through raising the following questions: (1) Does a relationship exist between marking system choice and the location of accrediting body among SAAEA member states? (2) To what extent do markers learn about marking systems at pre-service training level in Eswatini? (3) What factors influenced the choice of the currently used marking approach in Eswatini public examinations? The human factor theory and the models of both CBS and WSS underpinned the study. A qualitative descriptive case study designed was adopted where 9 research forum members were interviewed and 18 purposively selected markers, one former senior ECESWA staff member and five current ECESWA staff members were interviewed. The findings revealed a pattern between nature of marking approach and location of accreditor. The teacher training curriculum and pedagogy assessment was found to have very weak levels of inclusion of marking approaches. The voice of the accreditor, the level of accountability over one's marking errors were found to have been high priority factors in compelling ECESWA to mark through WSS. The study recommends ECESWA not to rush for CBS before engaging in deep dialogue with the Accreditor.

Keywords: Conveyor Belt, Marking, Public Exam, Eswatini

Introduction

Without educational assessment, learning outcomes are hardly realised; and even if by chance they do, stakeholders fail to prove them because of the lack of the evidence that assessment can generate. Good evidence of attained learning outcomes emerges from

reliable processes such as the marking of candidates' scripts. How marking is done is regarded as one of the major factors of the reliability of the process. Unreliable marking can make the difference between candidates getting the grade they deserve and a grade that does not reflect their knowledge and skills, and that difference can be life - changing (Oxford University, 2022). There are two commonly used marking approaches: The Whole Script System (WSS) and the Conveyor Belt System (CBS). This paper attempts to evaluate these two systems to inform future decision making in the public examination context of Eswatini.

Examinations for all the three levels of the 7-3-2 education system of Eswatini are set, marked, administered, and certified by the Examinations Council of Eswatini (ECESWA). This Council is a corporate body established through the Examinations Regulation of 1984, a product of the Education Act of 1981. ECESWA, like all assessment bodies, pays particular attention to issues of fairness, validity, and reliability of their assessments. During her early years of establishment, ECESWA used to mark candidate scripts via the CBS System (CBS) of marking until at the verge of the 21century where the approach was revised to whole script marking.

The number of officers who were serving ECESWA at leadership, management, examining personnel and marking level when the change from CBS to WSS system occurred has over the years declined due to a variety of reasons such as promotions and retirement. When attrition occurs in a workplace, the new teams usually face a challenge of inheriting the institutional memory that retired or promoted members earned over years, especially when change demands awareness of such memory gaps.

Upon conducting a survey on what marking approaches were currently used in each of the 15 members states of the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SEACMEQ), it was found that over 80% of the SEACMEQ members were using the CBS marking approach for their high stakes' examinations. Eswatini was found to be among the minority that still used WSS in the SEACMEQ space, something that raised the curiosity because literature reveals that group norms generally pressurise individual norms to conform (Clear, 2018, p.103). It is in the light of this backdrop that this paper aims to explore the factors that influenced the choice and loyalty of Eswatini on their currently used public examination marking approach.

Research Questions

The following questions guided the study:

1. Does a relationship exist between marking system choice and the location of accrediting body among SAAEA member states?
2. To what extent do markers learn about marking systems at pre-service training level in Eswatini?
3. What factors influenced the choice of the currently used marking approach in

Eswatini public examinations?

Reliable Marking

Marking errors are human errors and they negatively affect the reliability of a candidate score (Bukenya, 2006). These errors were found to be either knowledge-based, rule-based or skill-based (Brennan & Oeppen, 2022; Kirwan, 1998). Suskie (2004) argues that Markers' and his view is well supported by Bukenya (2006) who further highlights that an additional factor is the marking approach. He argued from the Ugandan educational assessment context that the CBS marking system tempts the Marker to err less than the WSS does.

The CBS System of marking is where examiners are organized in groups. Each group is composed of a team leader, a starter, markers, and checkers (Bukenya, 2006). Each marker marks only a set of questions and passes the candidate's answer script to the next marker who also marks the set of questions allocated to him/her. The WSS Marking System is the marking approach where candidate scripts within the envelope from the Centre are assigned a particular marker who marks the candidate responses to all the questions answered by the candidates (Risiro, 2015).

Strengths and Weaknesses of CBS Marking

The merits and demerits of both CBS and WSS marking approaches have been deliberated elaborately upon in the sub-Saharan region, particularly over first three decades of the twenty-first century. In 2006 at the 32nd International Association for Educational Assessment (IAEA) conference in Singapore, Bukenya (2006) drawing from his vast experience at the Uganda National Examinations Board (UNEB), revealed that CBS marking was more reliable than the WSS, whole script marking approach.

Table 1: Advantages and Disadvantages of CBS system (Bukenya, 2006)

Advantages	Disadvantages
Team Spirit	Demands of examiners
CBS encourages members to work as a team.	Tedious, examiners tend to breakdown more frequently than in the TMS.
CBS builds more cooperation among examiners.	Is time consuming
An examiner's commitment to marking is higher in CBS.	Leaves no room for relaxation for examiners.
Security of Scripts	Confines examiners unnecessarily
Theres is less risk of having scripts lost in CBS than in TMS. In CBS individual examiners have less control over a script than in TMS	Reduces Marking Speed
Marking speed and transparency	Cheats the fast markers financially.
CBS controls the very fast examiners more than TMS; there is less need for a rush to mark more scripts in CBS than in TMS.	Does not cater for individual differences amount the examiners.
CBS is a more transparent system of marking than TMS	
Fairness to Candidates	
A script of a candidate is marked by more than one examiner. This reduces the chances of bias and over-marking or undermarking.	
Maximisation of Examiner Concentration	
-Examiners are kept busy. This reduces redundancy and laziness on the part of the examiners.	
Minimising Malpractice. Cases of malpractice during marking are minimised. Since an examiner mark only a few questions. Moreover, movement of examiners from one room to the other is reduced.	

His findings within the same decade were echoed by several scholars from a variety of contexts. Some of these authors are the Rwandan Government through the Rwanda Focus (2009) the two marking systems and concluded in line with Bukenya

(2006), where they singled out that WSS Marking tempted the Marker to be sloppy and hasty as their remuneration was based on the number of scripts they marked.

In 2009 at the 27th Association for Educational Assessment in Africa (AEAA) conference in Yaonde, Cameroon, Manyumba and Motwiri (2009) found that the Kenya National Examinations Council (KNEC) chose CBS marking and as a way of preserving the reliability of the process they trained the Markers first and make them sit an examination be beforehand (Manyumba & Mutwiri, 2009). CBS marking in Tanzania, among other reasons was adopted to reduce the time for marking, queries, and biases by Markers. Just at the edge of the first decade, in Tanzania CBS Marking's introduction was motivated by the desire to shorten the marking period, reduce the quantity of queries, and lower the number of biases by Markers (NECTA, 2010).

In the second decade authors like Kasowe (2014) conducted a qualitative case study using open ended questionnaires and interviews on lecturers and students in Zimbabwe. The findings showed that although lecturers were aware of the advantages of CBS marking, they were not willing to change to it. Some of the reasons they attached were that the WSS approach enabled them to mark even from home in their individual space. It gave them the autonomy on how to mark. It also gave them a great opportunity to troubleshoot student queries fast and accurately. While the lecturers preferred the WSS approach, the students favoured Belt Marking as they felt that it had a potential of protecting them from lecturer biases.

In his recommendation Kasowe (2014) proposed that the University continues with the WSS marking approach and maybe use the other approach on special cases. In the same Zimbabwe context Risiro (2015) came up with a comparable set of findings same findings, though his focus was on Great Zimbabwe University instead of the Open University but both authors used similar instruments and participant types (Risiro, 2015). On a more recent remark, Ojos and Kaziro (2023) through the Ugandan context examined how personality variables correlated with the effectiveness of the CBS markings system. These authors' research revealed that while the WSS marking approach minimally develops personality traits, the CBS approach significantly does so, if well monitored (Ojos & Kaziro, 2023).

The choice of which marking approach to use constantly features among scholars. Risiro (2015) pursued the same topic but on the University examination contexts in Zimbabwe that the public examination context in Eswatini. The gap in literature exists in that though Eswatini has a collection of studies on educational assessment, none have critically analysed the currently used marking approach in the Eswatini Public Examinations context.

Methodology

Research Design

The study adopted a qualitative approach since we sought to understand the perspectives and experiences of markers, marking managers and leaders of departments and institutions that deal with the marking of public examinations. Qualitative research is designed to understand the perspectives and experiences of individuals (Bogetz, et al., 2017). A descriptive case study design was adopted focusing on Eswatini. The researchers chose Eswatini because they were Swazis by birth and served within the Education System of the country. The case study was chosen because it was found relevant to our aim of understanding how marking stakeholders in the case being studied construct meaning from their own evaluations of the CBS marking approach. A census on marking approach and accreditor was conducted for all SAAEA members through a checklist. All members that were interviewed were purposively sampled where the criteria were experiences of both CBS and WSS marking approached at either marker or leadership level. In cases where a name for a participant was recommended by the interviewee, the snowball sampling approach was allowed to influence our sample size.

Sample Characteristics

Information about the type of marking used in each SAAEA member was sourced from participants who were members of the Southern African Association of Educational Research (SAAEA) research forum. A member of the ECESWA senior management was interviewed on the pros and cons of the CBS of marking from their perspective. A total of 18 participants where one of them was the former leader of the test design section at the time when ECESWA changed from CBS to WSS of marking were interviewed. The markers were specialists in: Mathematics, English, Siswati, History, Geography, Religious Education, Business Studies, Agriculture at the Eswatini General Certificate of Secondary Education (EGCSE) level. Only English and Siswati Principal Examiners were interviewed at the Junior Certificate and Primary Certificate level.

Data Collection

Participants were interviewed during marking as most of them were currently markers for the case under study. There were participants that through snowballing emerged from interviews with the originally targeted participants. Such emerging participants were then traced and interviewed too. The bulk of the interviews occurred during the 2023 marking session where the researchers were able to run the interviews during tea and lunch breaks. Participants who were not within the marking sites, especially those that emerged through the snowballing, were interviewed telephonically.

Validity and Reliability

This study engaged data triangulation where the data were collected from the subject officer, the PE, Team Leader, and ordinary marker. For each source the phenomenon was an evaluation of CBS marking. Denzin (1978) identified four types of triangulations: data, theoretical, researcher and methodological triangulation. Data triangulation was adopted in this study and involved collecting data at different times and from different sources. Transcription verbatim was carried out by listening to a sentence, pausing, and replaying and re-listening. The re-listening was for validating the data.

Data Collection Instruments

A checklist and interview schedule were used. For the second research question, a document analysis of the course outline for the programme was also engaged. The open-ended questionnaire elicited demographic information of the interviewee that centred around the subjects they mark and their experience in marking. The second section involved a questionnaire where responses to the reasons why ECESWA changed from CBS to WSS marking were gathered. This part also included what side effects came with the change. The interview schedule also sought to establish the interviewee's understanding of CBS as a marking approach and what pros and cons were involved. The tool also sought to find out if changing back to CBS would be the best option for their subject.

Data Analysis

Thematic Analysis was used. This was because from the individual meanings and interpretations we wanted to get general meanings and interpretations. We read through the data, as a step that led us to a preliminary code list, which was then discussed with the co-author to finalise the list and create a codebook. We then coded the remaining transcripts using the codebook. The codes were then moved around to join with sister codes to form larger categories that later gave us themes.

Results And Findings **Marking Approach Choice and Accreditation Location**

Each representative of the SAAEA members was asked for what marking approach they used and whether their accreditation was by on oversees body or not. The results are shown in the table below:

SAAEA Member	CBS system or WSS system	Accredited by an Oversees Body?
Botswana	WSS	Yes
Eswatini	WSS	Yes
Lesotho	Mixed	No, Recently stopped
Malawi	CBS	No
Namibia	WSS	Yes
South Africa – IEB	CBS	No
Tanzania	CBS	No
Zambia	CBS	No
Zimbabwe	CBS	No

First Finding

The table shows that more countries in the SAAEA family are using the CBS system of marking. There is also a connection between system used for marking and type of accreditation. This connection is such that those countries currently accredited by an oversees body run with the WSS system, while the others with CBS system.

The responses of participants from their tertiary institutions are outlined in the table below:

PSEUDONYM	RESPONSES	Course	Institution	Studied CBS at tertiary	CBS meaning from ..
A	I studied BA in Humanities and PGCE. In my understanding CBS means that a marker marks a specific question and then pass on the script to the next person in the group who marks another question until the script is fully marked. I did not learn about marking approaches at tertiary level, I only got to know about CBS when I joined ECESWA as a marker. However, I never used it I only heard about it from old markers who said they used it.	BA Hums + PGCE	UNESWA	No	ECESWA marker friends who used to experience it at ECESWA
B	I did BA Humanities and PGCE. I do have an idea about the CBS as it was used years back when I started marking at Exams Council. I did not study or learn anything on marking approaches at tertiary level.	BA Hums + PGCE	UNESWA	No	I once marked through CBS
C	I studied BA humanities and PGCE. I know about CBS of marking. I learnt about it from colleagues who used to do it during marking with ECESWA a long time ago. People would share their experiences about the system during marking. No, I did not study about marking approaches at tertiary level.	BA Hums + PGCE	UNESWA	No	Colleagues who used to experience it at ECESWA
D	I did BA Humanities and PGCE. I do not know anything about CBS. I do not remember studying about marking approaches at tertiary level.	BA Hums + PGCE	UNESWA	No	None
E	I have a BED Secondary. I do not know anything about the CBS marking. I don't remember studying about marking approaches at university.	BED (Sec)	UNESWA	No	None

PSEUDONYM	RESPONSES	Course	Institution	Studied at tertiary	CBS	Learnt CBS meaning from
F	I have BA Humanities. I partly know about CBS after hearing about it from a friend who is a teacher in South Africa who mentioned that they mark in groups where one marker specialises in one question. No I did not do anything on marking approaches at tertiary level.	BA Hums + PGCE	UNESWA	No	From Teacher Friend in SA	..
G	I studied Secondary teachers diploma. No I don't remember or know anything about CBS of marking. Yes I studied about marking approaches at tertiary but CBS was not there(I think).	STD	WPC	No	None	
H	I hold BA in Humanities. According to my understanding the CBS is a system of marking in which a marker mark a specific aspect of the exam(e.g. Q1 and transfer the script to another marker who specializes in marking Q2. I found out that markers from other subjects used it in the past. I never studied about marking approaches at tertiary level.	BA Hums + PGCE	UNESWA	No	From ECESWA marker friends	
I	I hold a Master degree in French foreign language teaching. Yes I know about CBS, I did study about it during 1st year Masters where I was doing a module on assessment. I have also learnt about it through several workshops for IEB schools marking portfolios.	MA (French)	UNESWA	Yes only at MA level	Post Graduate Studies	
J	I hold a BA in Humanities and PGCE. I have heard it is used in South Africa where one marker marks certain part of the question and others mark a different question in the same script. Yes, have studied about it at tertiary level they include points based system level of response.	BA Hums + PGCE	UNISA	Yes	South African teacher friends	

PSEUDONYM	RESPONSES	Course	Institution	Studied CBS at tertiary	CBS	Learnt meaning from ..	CBS
K	BSC in Home Economics. Yes, I do know about the CBS. I learnt about from the internet. I did study about marking approaches at tertiary level.	BSC (Home Economics)	UNESWA Luyengo	- Yes	only marking approaches	internet helped with CBS	..
L	I hold a BA Humanities and PGCE. I don't know anything about the CBS. We only went through assessment types, not in detail but standard practice of marking.	BA Hums + PGCE	UNESWA	No		None	
M	I hold a BA in Humanities and PGCE. I know about CBS even though I have limited experience about it. In my previous workstation we used help each other when marking test each one marking a certain question. I learnt about marking approaches in my PGCE module 'Assessment in Education (AE3701)' at UNISA.	BA Hums + PGCE	UNESWA	No		My school had team marking culture	
N	I hold an Honours Bachelor of Education, Advanced Certificate in Education and Primary Teacher's Diploma. Conveyor Belt marking was used in marking Religious Studies (EPC) until 2013. So, I was introduced to be CBS in 2003. I did not study about marking approaches at tertiary.	Bed + Cert Ed + PTD	UNESWA	No		ECESWA when we marked using it in 2003 and also applied it up to 2013	
O	I hold a Bed Primary degree. I know a little bit about CBS, way back in 2012 ECESWA engaged markers for a week training assigned in different questions. Yes, I did not study marking approaches as it was part of the learning assessment, learning outcome and assessment criteria.	Bed (Primary)	UNESWA	No		A one week course in 2012 by ECESWA	

PSEUDONYM	RESPONSES	Course	Institution	Studied at tertiary	CBS	Learnt meaning from	CBS
P	Bed Secondary Commercials. No, I do not know anything about CBS, and I did not study about it at tertiary level.	Bed (Sec - Commercials)	UNESWA	No		None	..
Q	I did Bed Secondary in Business studies. I do not have an idea about CBS, but after googling I now understand that is an approach used for marking in some areas. I do not remember studying marking approaches in class and I don't remember seeing anything on the course outline.	Bed (Business Studies)	UNESWA	No		google	

Second Finding

The table reveals that most of the markers were not trained about either the CBS or WSS at tertiary level but now had either through internet, their South African counterparts or some former or current ECESWA markers who once marked under the CBS approach.

Factors That Influenced ECESWA's Move From CBS

The factors behind the choice of the currently used marking approach in Eswatini involved A former senior management leader, test designers, and markers.

Table 2: Former Senior Management Member's Input

Codes	Categories	Themes
ECESWA used to mark through CBS	CBS Experience Exists	CBS is less reliable than WSS.
Faster marking due to easy mastering of marking scheme, but more errors	Reliability Decline	(Threat)
Informed by Cambridge <i>Sacocodza Ihamba lencola.</i> Markers had reservation but had to change since terms and conditions of employment were binding	Accreditor driven Marker buy-in was minimal	Deductive approach to change (Threat)
Deeper research recommended	Evidence based practice	Change needs be informed by compelling evidence
In CBS less accountability at expense of reliability of the marking process.	Markers in CBS have a chance to hide behind others work	Low accountability, Low reliability
With CBS teacher misses the complete syllabus exposure as they only mark a narrow section. Teaching and Learning is deprived of the richer understanding of syllabus by the teacher.	Narrow curriculum exposure at the expense of teaching and learning	Learning from assessment frustrated. (Threats)

The member of senior management at the time of changing from CBS to WSS noted that Eswatini's change from CBS was motivated by noticing and increase in marking errors. This came at a time where the Accreditor too had just shifted away from CBS to

WSS. The low marker accountability chance in CBS was also noticed to be tempting markers to be less vigilant in their marking. The CBS approach also exposed the marker to a narrow strip of the curriculum yet when going back to class they would be expected to teach the entire syllabus.

The Case's Input on the CBS system.

Nine ECESWA staff members were interviewed, two of the typical responses are shown below:

Designer's voice E: CBS's advantage is that a marker concentrates on a specific question which increases accuracy, speed may increase with time as the marker get used to the mark scheme. However, monitoring of markers can be strenuous since there is no accountability on the part of the markers as they do not own the scripts. Markers are not evaluated on the whole question paper; slow markers can delay fast markers. CBS does not pay according to performance which may result in loss of good, experienced markers who might feel their work is not appreciated. WWS is good, with more supervision and provision of assistance to struggling markers there would be minimal problems with this system of marking. More focus should be on those who are struggling. Markers do not relax, and they take everything seriously because they are accountable for the whole script.

Test Designer F: I have mixed feelings about CBS since it does have its positives and negatives. It is good because a marker can master the question, she or he is marking which minimise errors. However, markers can relax knowing they are not responsible for the whole script and they are all going to get the same amount of money at the end. CBE needs very disciplined markers which might be difficult to get sometimes. In WWS everyone engages and applies herself/himself in the marking process knowing that if something goes wrong with a script she/he is the only one who is responsible and accountable for it. CBS can be brought back to ECESWA, my only problem with it are the markers who tend to relax and rely on other for the work to be done, otherwise it is a good system. In WWS accuracy is minimal as markers tend to rush to finish and mark as many as possible scripts.

ECESWA Exco Representative's Voice

The participant explained why ECESWA had to leave CBS to WSS marking. The words below are cited verbatim: ECESWA currently uses whole script marking because conveyor belt marking revealed some limitations as detailed as : Lack of accountability for errors because a script was shared by several markers; Limited professional development because marking focused on one or two questions, yet whole script marking means the marker is marking all the questions, thus benefiting from the marking approach; Errors

associated with addition of marks are usually not owned as markers blame each other.

The researcher then probed by asking: Which other risk that you think might occur with the Conveyor Belt system of marking. The participant responded by stating that: Some scripts ended up unmarked as markers due to lack of accountability. The researcher further probed:

If you were to speak on behalf of a Test Design leader in the assessment industry. What caution would you give to a society that is about to choose Conveyor Belt as a marking approach at the EGCSE level? The respondent added that:

I would advise them to consider the professional development of teachers because as opposed to conveyor belt marking which limits the marker to one or two questions throughout the marking session, whole script marking exposes the marker to all the questions, even those they are not comfortable with thus stretching their understanding of the whole exam. Whole script marking improves accountability because addition mistakes are owned by the marker yet in conveyor belt marking there is no accountability with regards to addition of marks in a script marked by different markers.

All in all the voices were summarised using the codes, categories and themes shown below:

All in all, the Test Designers Noted that CBS comes with higher marking rate but there were errors that get generated by the low levels of Marker accountability. The same sentiment was shared by the member of the senior management who was interviewed. This comes with time costs since tracing errors, for easy management, will be hard. The leadership structure of the marking process would now have to limit the Team Leader to being question specific something that will also narrow the scope of how the marker is evaluated. With CBS the fast marker is frustrated having to wait for slower markers to pass a script onto them. This is not the case with WSS. The WSS marking is also cumbersome in that the marker is expected to understand all tested concepts before the actual marking and that creates more room for human error such as leaving some sections unmarked.

Markers' Voices

Not all the voices of the participants are shown here but a sampled participant's remark is shown:

Participant R

I worked under both CB and WS marking approaches. I worked under CB around 1998 and at that time we were fewer, so we would group ourselves and choose which question to mark. So, we would mark our preference questions and specialise on one question, and that added a lot on the marking script. Checking of scripts occurred naturally since as script moved from table to table, people naturally checked you how you have

marked by paging back before they start working on their section, e.g. if you have given 20 instead of 25 marks they would easily notice and report that.

In this method it was easy to quarrel as people would notice if even last year you were on an easy ride question. This means with this approach the PE needs to be good with record keeping and have fair ways of balancing workload among her staff. In general, it creates problems especially with the increase in number of people who are lazy and eager to cheat. The other thing is that it is easy for scripts to get lost especially from big centres since all groups would love to begin with them. This means that while you are marking the next group would put pressure on you and try to get some scripts to assist and in the process get scripts lost.

The CB method helps minimise the effect of stingy markers as they only focus on a tiny bit of the question that to have that stinginess affects the whole centre. In the CB method you have no way of seeing your centre from the round table. The whole script method helps a lot in that regard. The CB method will not be able to give smaller scripts to new markers, yet now in the WS marking we are able to give them fewer scripts. That is a challenge with the CB. Marker errors are not easily picked in the WS marking especially for the scripts within the Team Leaders' 10% sample, while with CB, the script passes through many eyes who easily raise alarm when errors are identified.

WS marking makes each marker committed since accountability lies flatly with them. It fosters natural commitment. With CB *bantfu bese bavinyelela kulabanye bachubeke bafike late futsi badlale ngobe bayati kutsi labanye batabetfwala*.

The table below that summarises the voices of all markers, including those whose excerpts are not shown.

Statement Categories from Interviewees		Factor	Decision Clue
1	Changing to WSS marking approach was inspired by the Accreditor's marking practice direction	Accreditation	Disadvantage
2	Faster and more reliable because markers quickly internalise the marking scheme and errors of commission and omission incidentally get trapped as script moves from belt to belt but attracts accountability challenges	Reliability and Pace	Advantage
3	New marker matures faster from the teamwork. Good marking practices are modelled within the belt of team members.	Teamwork	Advantage
4	Concept marked is understood deeper	Focus	Advantage
5	Collaboration instead of competition is fostered. Some competitions can be unhealthy and end up creating unwanted errors.	Cooperation	Advantage
6	Marker fatigue from overwork is controlled as markers knock off at standard official times.	Efficient	Advantage
7	Reliability is curbed by assigning complex questions to seasoned markers and easy ones to novice markers.	Reliable	Advantage
8	Concepts marked are understood at a narrow syllabus scope. The narrowness of the syllabus scope affects the teacher's Pedagogical Content Knowledge in lesson delivery back at their schools	Impact	Disadvantage
9	Remuneration is unfair on both the hardworking and lazy marker. A key value of assessment bodies is eroded from the onset	Commitment	Disadvantage
10	Marking pace is restrained by the fact that when it is knock off time, everyone must leave, unlike in WSS, where markers who arrive early and leave late can duly reap from such sacrifices.	Pace	Disadvantage
11	Attracts administrative challenges to assessment body since accountability is low	Accountability	Disadvantage
12	Marker vigilance to mistakes is lower than with WSS	Vigilance	Disadvantage

Third Finding

The factors that were advantageous to ECESWA at the time of change from CBS to WSS were the accreditor factor, reliability and pace, teamwork, cooperation, and efficiency. The disadvantages originated from factors such as negative impact, commitment, accountability, and vigilance. Advantages that are likely to accrue if the CBS

system were chosen are reliability and positive teamwork which ultimately improves the overall marking pace. The most resounding disadvantage of choosing the CBS would be that it is contrary to what was recommended by the Accreditor. The second most resonating disadvantage was that CBS system would lower the degree of accountability of markers for their actions.

Discussion

The first finding of this study revealed that the countries that marked through CBS were not accredited by an overseas body, and those that used WSS were accredited by an overseas body. Linking this finding is triangulated by what the former senior management member identified as a major reason for changing to WSS marking.

The second finding was that most of the markers were not trained about either the CBS or WSS at tertiary level but now had either through internet, their South African counterparts or some former or current ECESWA markers who once marked under the CBS approach. This finding aligns with Brennan and Oeppen (2022)'s insight that human errors are either knowledge-based, rule based or skill-based. Since most of teaching and learning focuses on knowledge and skill, training teachers before they mark appears to play a significant role in mitigating human errors. This highlights an implication that should ECESWA consider CBS, they need to be aware of the deep need for training the markers as most pointed that they were not trained at tertiary and the knowledge they had was unstructured and haphazardly accessed.

The third finding of the study was that the factors of improved marking pace, teamwork, marker concentration, and reliability were found advantageous with the CBS system. This finding corroborates Bukenya (2006)'s finding in the Uganda context. In their elaboration, Bukenya (2006) and Risiro (2015) further reveal that these factors all emerge for the unique features of the CBS system that allows easy understanding and internalisation of the marking scheme.

The disadvantage of going against a marking approach of the Accreditor is also confirmed by the finding to the first research question of this study that for all the countries under the oversees Accreditor, the marking approach is consistently the WSS. The Accreditor factor is also listed by the former ECESWA ExCo member as the major reason that motivated ECESWA's change from CBS to WSS system. Freeman (1984) encourages companies to play high priority on key stakeholders such as Accreditors for Public Examination bodies.

The other disadvantage is reduced accountability, a factor that has the potential to lead to lost control of errors, something that any accreditor or examination board would be reluctant to permit.

Conclusions and Recommendations

Only those countries accredited abroad used the WSS system. It was also noted that ECESWA once used the CBS marking but changed mainly due to accreditation linked reasons that were inspired by the increase in marking errors. It is recommended that ECESWA begins further research from the findings of this study before they change the currently used marking approach.

Most markers were not trained at tertiary on CBS system of marking, though some have a basic know-what about it, which they accessed either through unstructured means such as friends or the internet. It is recommended that ECESWA continues and strengthens the pre-marking trainings on marking approaches especially the CBS and WSS systems.

The factor behind choice of marking approach is deeply entrenched in the contractual priorities of the whole set of accreditation conditions. What the accreditor is likely to consider to be a method that has more control on marking errors will have a stronger chance of being the local Examination board's choice too. This is mainly because the Accreditor is a central stakeholder in the day-to-day life of the organisation. The study recommends that the current marking approach status quo be maintained as this study gets to be repeated at least biennially. It is specifically recommended that should ECESWA consider the route of CBS system, they need to first pilot it and run it with low stake exams first where the Accreditor factor does not exist. When time for trialling it at the EGCSE level, careful and deep engagement with the Accreditor needs to be conducted first.

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