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Exploring Formative Assessment Practices in Public Secondary Schools in Kicukiro District

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ABSTRACT

Various scholars acknowledged that formative assessment play a vital role in increasing students' academic achievement. The main purpose of this study was to explore formative assessment practices in public secondary schools in Kicukiro District. The specific objectives of the study were to investigate how teachers plan for formative assessment in public secondary schools in *Kicukiro district, to discover how teachers use formative assessment techniques in electing students learning evidence in public* secondary schools in Kicukiro district and to assess how teachers provide formative assessment feedback to students in public secondary schools in Kicukiro district. The study used descriptive survey research design. The study was guided by Sadler's theory of formative assessment founded in 1989. The target population of the study was 220 teachers and 13 deputy head teachers in charge of studies. A sample of 142 teachers were selected using simple random sampling while 13 deputy head teachers in charge of studies were included in the study purposively. Questionnaires, semi-structured interview and lesson observation checklist were used as research instruments in collecting data from respondents. Quantitative data were analysed using descriptive statistics such as means and standard deviations whereas thematic analysis was used for analysing qualitative data. The quantitative data were presented in tables while qualitative data were presented in the text. The findings indicate that the practices related to planning for formative assessment (M=2.41, SD=1.01) are rarely practiced in public secondary schools in Kicukiro District. It was also revealed that practices related to eliciting evidences of students' learning (M=2.76, SD=1.11) were practiced sometimes. Finally, it was revealed practices related to formative assessment feedback (M=2.33, SD=1.01) were rarely done. The study recommended that National Examination and School Inspection Authority should strengthen the practices of formative assessment at school levels. Future researchers were recommended to replicate the study in other region beyond Kicukiro District.

Keywords: Assessment, Feedback, Formative Assessment, Peer Assessment, Self-Assessment

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I. INTRODUCTION

Globally, students must receive high quality education for achieving their full potential as human being and a member of a society (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2017). Quality of instructional assessment is one aspect that influences the quality of education of any nation. In instructional context, results from assessment help teachers to take decision about instruction. According to Stăncescu (2017) assessment is not simply a final stage in educational process, it must also be part and parcel of instruction which provide feedback to both students and teachers. The feedback from assessment aim at improving teaching and learning process. In education, assessment is mainly categorized into summative assessment and formative assessment. Formative assessment is referred to assessment for learning while summative assessment is referred to assessment of learning (Looney, 2011). According to Theall and Franklin (2010) when the cook tastes the soup that is formative assessment and when the guest is testing the soup is referred to summative assessment. Formative assessment is considered as central element of teaching and learning process (Box, 2018). Formative assessment is a collection of formal and informal processes used to gather evidence for the purpose of improving students' learning and provides teachers and students with continuous, real time information that informs and supports instruction. In classrooms, formative assessment is done frequently to identify learning needs and adjust teaching suitably. Teachers who use formative assessment approaches and techniques are likely meet diverse students' needs through differentiation and adaptation of teaching to raise levels of students' achievement and to achieve a greater equity of students' outcomes. Formative Assessment is part of the instructional process (Clark, 2012). When integrated into classroom practices, it provides the





information needed to adjust teaching and learning while they are happening. In this sense, formative assessment informs both teachers and students about students understanding at a point where timely adjustments can be made. These adjustments help to ensure students realize targeted standards-based learning goals within a set time frame. If students are not involved in the assessment process, formative assessment is not practiced or implemented to its full effectiveness. Students need to be involved both as assessors of their own learning and as resources to other students (Ndoye, 2017).

There are many strategies that teachers can use to engage students. In fact, research shows that the involvement in and ownership of their work increases students' motivation to learn. This does not mean the absence of teachers' involvement. To the contrary, teachers are critical in identifying learning goals, setting clear criteria for success and designing assessment tasks that provide evidence of students' learning. One of the key components of engaging students in the assessment of their own learning is providing them with descriptive feedback as they learn. In fact, research shows descriptive feedback to be the most significant instructional strategy to move students forward in their learning. Descriptive feedback provides students with an understanding of what they are doing well, links to classroom learning, and gives specific input on how to reach the next step in the learning progression (Dommeyer et al., 2004). In other words, descriptive feedback is not a grade, a sticker, or other comments like "good job!" A significant body of research indicates that such limited feedback does not lead to improved students' learning. There are many classroom instructional strategies that are part of the repertoire of good teaching. When teachers use sound instructional practice for the purpose of gathering information on students' learning, they are applying this information in a formative way. In this sense, formative assessment is pedagogy and clearly cannot be separated from instruction. It is what good teachers do.

The distinction lies in what teachers actually do with the information they gather. How is it being used to inform instruction? How is it being shared with and engaging students? It's not teachers just collecting information/data on students' learning; it's what they do with the information they collect. Feedback is crucial to formative assessment, but not all feedback is effective. Feedback needs to be timely and specific, and highlights suggestions for ways to improve future performance. Good feedback is also linked to explicit criteria regarding expectations for students' performance, making the learning process more democratic, and modelling "learning to learn" skills for students. Huinker and Freckmann (2009) suggest that formative assessment involves both formal and informal practices which are practiced by both teachers and students or their peers in gathering learning evidences which are used in improving ongoing students' learning. According to Black and William (2009) teachers play a critical role in formative assessment. Teachers have to clarify and share learning intention with students, elicit evidences of students' learning and provide formative assessment feedback that helps learners to close their gap in learning. Although, formative assessment plays an important role in improving instruction scholars such as Arrafi and Sumarni (2018) claimed the poor practices of formative assessment due to teachers' poor understanding of formative assessment. According to Rwanda Education Board (REB, 2015), teachers are expected to use formative assessment in their classroom specifically before, during and after lesson with purpose of improving students' learning.

In Rwanda, through Education Sector Strategic Plan (ESSP 2018/19 - 2023/24) the Ministry of education has decided to improve teachers' formative assessment practices (Ministry of Education [MINEDUC], 2018). In addition, schools are encouraged to use formative assessment in their daily classroom activities instead of checking the students' understanding using end of year exam results. In the same vein, since 2019 the Ministry of education has adopted comprehensive assessment where it was noted that formative assessment should be used to assess learners continuously by their teachers and feedback should be provided to address the gap in learning which lead to improved learning outcomes (MINEDUC, 2019). The findings of study a conducted by Ukobizaba and Nizeyimana (2022) revealed that there were poor practices of formative assessment in classroom in Nyamasheke District, Rwanda. Those poor practices were linked to different factors such as class size, teachers' work load and teachers' insufficient pedagogical content knowledge. In Kicukiro District, those poor practices of formative assessment were reported by Japan International Cooperation Agency (JICA, 2022), in their final reports which highlighted that formative assessment has turned into formality. To the best of our knowledge, there is need to conduct the study to explore formative assessment practices in public secondary schools in Kicukiro District.

1.1 Objectives of the Study

- i. To investigate how teachers plan for formative assessment in public secondary schools in Kicukiro District.
- ii. To discover how teachers use formative assessment techniques in eliciting students' learning evidences in public secondary schools in Kicukiro District.



To assess how teachers provide formative assessment feedback to students in public secondary schools in Kicukiro District.

II. LITERATURE REVIEW

2.1. Theoretical Framework of the Study

The study guided by Sadler 'theory of formative assessment and feedback founded 1989. Sandler conceived of formative assessment as a feedback loop to close the gap between the learner's current status and desired goals. He made clear that information itself is not feedback, but only becomes feedback when it is actively used" to alter the gap. This theory is suitable for this study because it describes how all formative assessment practices should be done in order to improve student learning during teaching and learning process.

2.2 Teachers' Practices Related to Planning for Formative Assessment

Formative assessment is a planned process rather than happening accidentally. According to Heritage (2020), the first stage in planning for formative assessment is to develop and share learning objectives and success criteria with students in the classroom. Teachers play an important role in clarifying learning objectives and success criteria with students. Nsabayezu et al. (2022) conducted a study on the utilization of formative assessment rubric in organic chemistry using both qualitative and quantitative methods and the findings revealed that students were satisfied with using formative assessment rubric and motivation was increased in learning. Although both learning objectives and success criteria play an important role during formative assessment, the study conducted by Shafii (2021) to explore the practices of assessment for learning in secondary schools in Tanzania, the findings highlighted that 70% of teachers didn't share learning objectives with students. Besides that, Wilson et al. (2017) noted that well planned assessment tasks help teachers to explore students' ideas related to the lesson. Furthermore, the study conducted by Komba and Mwandanji (2015) on implementation of Competence-Based Curriculum (CBC) in secondary schools in Tanzania the findings reported that few teachers include assessment tasks in their lesson plans. They also added that only less than 50% of teachers use formative assessment practices using qualitative approach, the findings reported that few teachers planning their lessons.

2.3 Practices Related to Questioning Techniques in Eliciting Evidences of Students' Learning

According to Carter et al. (2021), to determine whether students have achieved the lessons intended learning objectives, teachers must employ various assessment strategies. The study conducted by Shahzad et al. (2022) to analyze formative assessment practices of English teachers using mixed method the findings revealed that only 51% of the teachers assess learners' work just once or twice in semester. Similarly, the study conducted by Rahman et al. (2021) about how formative assessment is implemented in secondary schools using qualitative approach, the findings indicated that most teachers focus on class test and class work which are usually done at the end of every week. They also added that teachers rarely use group works, home works and oral presentation in eliciting evidences of students' learning and were not marked and recorded. Therefore, the findings indicated that teachers were focusing on marks from formative assessment rather than improving students' learning. By contrast, the study conducted by Chiziwa and Kunkwenzu (2021) using qualitative approach the findings revealed that majority of the teachers use group presentation and asking oral questions in assessing students' learning. Further, they also reported that teachers during asking questions that encourage students to provide a wide range of responses instead of encouraging students to memorize content. Contrary to this, the studies conducted by various scholars reported that most teachers use low order thinking questions during formative assessment (Milawati, 2017; Gapfizi et al., 2023; Govender, 2020).

2.4 Teachers' Practices Related to Providing Formative Assessment Feedback to Students

Feedback from formative assessment is crucial in assisting students and teachers respectively in modifying their learning and teaching strategies. Wang and Zhang (2020) conducted various studies on feedback practices in formative assessment and their findings revealed that feedback from teachers either direct or indirect helps students to improve their learning outcomes. Dayal (2021) argued that formative assessment feedback provided to students should not be restricted to highlighting correct answers only. Formative assessment feedback should help students to close the gap in their learning. Descriptive feedback should be provided to highlight strong and weak area in students' work. However, the study conducted by Bahati et al. (2016) to explore feedback practices in formative assessment and the



findings revealed that there is too much delay in providing feedback to students. In addition to this, they also highlighted that the written feedback provided to learners is unclear. The students who receive feedback as comments on their work, gained more improvement in their learning compared to those who received it in form of grades (Black et al., 2002). The findings of studies conducted by Kanjee and Mthembu (2015) indicated that most teachers do not provide descriptive feedback to students during formative assessment. The findings also highlighted that teachers' feedback was limited to ticks and the comments including "well done," "poor, incomplete work," or "improve your work."

III. METHODOLOGY

The study employed descriptive survey research design that involved a cross-sectional survey design. The target population of this study was 220 teachers and 13 deputy head teachers in charge of studies in public secondary schools in Kicukiro District. Deputy head teachers in charge of studies were included in the study purposively. Simple random sampling technique was used to select 142 teachers. Deputy head teachers in charge of studies were in good position to provide accurate information concerning formative assessment practices. Teachers were also targeted because they are responsible for leading teaching and learning instructional process. Both quantitative data and qualitative data were collected using questionnaires, semi-structured interview and lesson observation checklist. Questionnaire was used to collect data from teachers and semi structured interview was used to collect data from teachers and semi structured interview with collection after time interval technique was employed in collecting data from the teachers.

The content validity of instrument was controlled using expert judgment technique. By this, two experts in the area of curriculum were given research instruments and even research objectives to give judgment on the relevance of the research items in relation to research objectives. To check the reliability of research instruments, test-retest technique was used where computed correlation coefficient was 0.81 which implies that instruments were reliable. Descriptive statistics such as mean and standards deviation were used to analyze quantitative data whereas qualitative data was analyzed thematically. Quantitative findings were presented in tables and qualitative findings were presented in text.

IV. FINDINGS & DISCUSSIONS

4.1 Profile of Respondents

The demographic information about the respondents of the study such as teachers and deputy head teachers in charge of studies are presented below. The respondents of this study were identified by their gender and academic qualification.

Table 1

Profile of Respondents

	Category	Deputy head teachers	Teachers
Gender	Male	8	87
	Female	5	55
Qualifications	A1	0	27
	A0	12	104
	BA, BCS with PGDE	1	11

Table 1 indicates that male teachers were 87 while female teachers were 55. Teachers who had A1 were 27, teachers who had A0 were 104 and teachers who had Postgraduate Diploma in Education were 11. Male deputy head teachers in charge of studies were 8 while female were 5. Deputy head teachers in charge of studies who had A0 where 12 while 1 had Postgraduate Diploma in Education.

The first question guiding this study was about planning for formative assessment. Table 2 below presents the findings from respondents.



Table 2

Practices Related to Planning for Formative Assessment

Practices		SD
Setting learning objectives of the lesson	2.73	0.74
Sharing learning objectives with students	2.39	0.83
Considering individual difference in planning assessment tasks	2.40	1.10
Designing assessment activities that match with learning objectives	2.70	1.30
Ensuring that every students understand learning objectives and success criteria	2.25	0.98
Developing rubric which clarifies specific success criteria	1.97	0.86
Integrating formative assessment throughout the lesson	1.99	0.94
Planning assessment techniques used during formative assessment		1.30
Overall score mean	2.41	1.01

The findings presented in Table 2 indicate that practices of teachers are different in planning for formative assessment. Considering their mean, the practices that were done sometimes are planning formative assessment techniques (M=2.81, SD=1.30), setting learning objectives (M=2.73, SD=0.74), and designing assessment activities that match with learning objectives (M=2.70, SD=1.30). The standard deviation (SD=1.30, SD=0.74) indicated that there was high variability and low variability in teachers' responses respectively. On other hands, practices of sharing learning objectives with students (M=2.39, SD=0.83), considering individual difference in planning assessment tasks (M=2.40, SD=1.10) and developing rubric which clarifies specific assessment criteria (M= 1.97, SD=0.86) were done rarely by teachers during planning for formative assessment. Furthermore, the overall mean score (M=2.41) indicated that practices related to planning for formative assessment was also confirmed by the majority of interviewed deputy head teachers in charge of studies. For instance, one interviewee said that:

"In my school, teachers try to plan activities that must be done by students during formative assessment. But some teachers fail to plan those activities and this was discovered through supervision of instruction I conduct regularly in order to monitor teaching and learning progress".

Furthermore, lesson observed also highlighted the low practices in planning for formative assessment. During lesson observation it was revealed that majority of teachers use unplanned question during formative assessment in classroom. It was also revealed that teachers rarely plan for learning objectives and success criteria of the lesson. These findings correlate with those of Shafii (2021) who conducted the study to explore the practices of assessment for learning in secondary schools and the findings revealed that 70% of teachers didn't share learning objectives with students at appropriate time in lesson.

The second research question guiding this study was about techniques used in eliciting evidences of students learning. The table below presents the findings from respondents.

Table 3

Formative Assessment Techniques Used in Eliciting Evidences of Students' Learning

Practices		SD
Using group works in checking students' learning progress		0.89
Using quiz to identify students with challenges in a lesson		0.84
Using homework to check the student's learning progress in lesson	2.90	0.92
Using oral questions in checking students' learning progress	2.70	0.53
Using questions that requires students to justify their answers	2.40	1.11
Asking questions linked to learning objectives	2.84	0.79
Checking the prior knowledge of students on new lesson	1.80	1.10
Using assessment techniques that facilitate classroom discussion like brainstorming	2.85	1.11
Calling students randomly to provide a response on activities provided	2.49	1.10
Providing time to students to think before providing answers		1.12
Overall mean score		1.11

The statistical findings presented in Table 3 indicate that practices related to questioning techniques are done at different level in classroom. Referring to their mean, the practices that were done sometimes are using group works in checking students' learning progress (M=3.01, SD=0.89), using quiz in identifying students with challenges in



lesson (M=2.95, SD=0.84) and using homework in checking students' learning progress (M=2.90, SD=0.92). On the other side, practices that were done rarely are checking the prior knowledge of students on new lesson (M=1.80, SD=1.10), providing time to students to think before providing responses (M=2.05, SD=1.12) and using questions that require students to justify their answers (M=2.40, SD=1.11). The standard deviation indicates that there was high variability in teachers' responses. These findings imply that there are some practices related to questioning techniques which are done sometimes but others are rarely practiced. Further, the overall mean score for all practices related to questioning techniques (M=2.76) indicates that there was heterogeneity in teachers' responses. In the same vein, the majority interviewed deputy head teachers in charge of studies also confirmed that teachers in eliciting students' learning evidence they try to ask questions using various questioning techniques. For instance, one interviewee reported that:

"Teachers in my school, during checking students' learning progress in lesson; they ask students various questions in oral and written form by using quizzes, exercises, group works and home works. But most of the time teachers prefer to use group works because there are many students in some classes".

Regarding the findings from lesson observed, it was revealed that teachers do not prefer to assess students individually while they prefer to use group works in checking students' learning progress. Addition to that, those findings highlighted that the majority of teachers ask questions of lower order thinking during questioning techniques not only that but it was also revealed that teachers rush in classroom because after asking questions they do not provide enough time to students to think before providing responses. Generally, we can observe that practices related to questioning techniques are practiced sometimes by teachers during formative assessment, but majority of teachers use low order thinking questions. These findings are similar to those of study conducted by Gapfizi et al. (2023) which revealed that teachers mainly use questions of low thinking- order during eliciting evidence of students' learning. In the same vein, findings of this study are in agreement with the results from research conducted by Owade (2017) that revealed that the time provided for students to think critically before providing responses in classroom is still inadequate.

The third question guiding this study was about providing formative assessment feedback to students. The table below presents the findings from the respondents.

Table 4

Practices		SD
Focusing on constructive comments in providing formative assessment feedback		0.91
Providing formative assessment feedback to student individually		0.96
Providing oral feedback to students in highlighting strong and weak area	2.92	0.52
Providing written feedback to students	2.89	0.90
Assisting students to provide formative assessment feedback to each other	2.11	0.99
Using formative assessment feedback in adjusting teaching strategies	2.20	1.03
Providing formative assessment feedback which is focused on learning objectives	2.95	1.11
Consulting the records of achievements before providing feedback to students.	2.37	1.31
Providing formative assessment feedback on time	1.60	0.94
Including suggestion for improvement in informative assessment feedback	2.29	1.33
Overall mean score		1.01

As indicated in Table 4, the practices related to providing formative assessment feedback to students are done at different level. Referring to their mean, the practices that were done sometimes by teachers are providing written feedback to students (M=2.89, SD= 0.90), providing formative assessment feedback linked to learning objectives (M=2.95, SD=1.11) and providing oral feedback to students in highlighting strong and weak area in their work (M=2.92, SD=0.52). On the other side, practices that were done rarely are providing formative assessment feedback to students on time (M=1.60, SD=0.94), including suggestion for improvement in formative assessment feedback (M=2.29, SD=1.33) and providing formative assessment feedback to students individually (M=1.90, SD=0.96). The standard deviation (SD=0.94, SD=0.96) indicated that there was low variability in teachers' responses while (SD=1.33) indicated that there was high variability in teachers' responses. This implies that although teachers try to provide formative assessment feedback in different forms but most practices are rarely practiced. Furthermore, the overall mean score (M=2.33, SD=1.01), indicates that the practices related to providing feedback are rarely done during formative assessment. Likewise, the interviewed deputy head teachers in charge of studies also reported the



poor practices of teachers in providing formative assessment feedback to students. For instance, one interviewee said that:

"In my school, the great number of teachers mark students' works and give students the marked papers which shows the marks on each questions but teachers also make a correction to students on black board to show them right answers. Those marks are used to make the students' report at the end of term".

The findings from observed lesson reported that, majority of teachers only write correct answers on blackboard as formative assessment feedback without any comments. This implies that majority of teachers didn't provide constructive feedback to students during formative assessment. It was also observed that majority of teachers provide oral feedback which is not linked to learning objectives since it is limited to talking about to performances of students. Generally, based on the above findings related to providing formative assessment feedback, we can observe that formative assessment feedback is rarely provided to students in classroom. The results of this study are consistent with the findings from study conducted Bahati et al. (2016) because they revealed that it takes too long time for providing formative assessment feedback to learners. They also added that the feedback provided is not descriptive enough to raise the students' learning as the comments used are unclear to students. Similarly, these results are consistent with those from the research conducted by Kanjee and Mthembu (2015) which revealed that feedback provided by teachers in formative assessment is not descriptive as it is limited to comments like "well done" or "incomplete".

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

Based on the findings of the study, it is clear to conclude that formative assessment practices related to planning were done rarely by teachers, practices related to formative assessment techniques used in eliciting evidence of students' learning were done sometimes. It was also concluded that practices related to providing formative assessment feedback to students were rarely done by teachers. Generally, it is logical to conclude that the practices of formative assessment were less done by teachers in public secondary schools in Kicukiro District.

5.2 Recommendations

Based on findings and conclusion of the study, the following recommendations were made. The National Examination and School Inspection Authority should strengthen the practices of formative assessment in schools. This can be achieved through organizing trainings aimed at helping teachers to improve their assessment practices. Teachers should improve the practices of formative assessment because feedback from formative assessment helps them to improve instructional process. Teachers should use various techniques during formative assessment in order to monitor the students' learning progress. School leaders such as head teachers and deputy head teachers in charge of studies should monitor the practices of formative assessment in their schools and advise teachers accordingly. Finally, Future researchers were recommended to replicate the study in other region beyond Kicukiro District

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