



Exploring the Context Dependent Factors That Shape Teachers' Practice of Quality Classroom Questioning: A Case of a Secondary School Setting

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Abstract

Classroom questioning as one of the practices and tools at a teacher's disposal in the teaching and learning process can be considered the strongest tool to teach students how to think. In the teaching and learning process, there is traditional questioning and quality classroom questioning. The purpose of this study is to explore the context dependent factors that shape quality classroom questioning practices manifested in the teaching and learning process in a form four class. The study used the Bloom's taxonomy and the Information Processing model as theoretical framework for the study to analyze the quality of questions and activities used to direct learner attention, encourage thinking, and promote real learning. The study was based on interpretivist paradigm that is exploratory in nature taking a qualitative approach. It involved use of classroom observation, semi-structured interviews involving four teachers and six learners, and document analysis on departmental minutes, schemes of work, lesson observation forms and lesson plans to collect data. It was found out that the context dependent factors that shape questioning were found to include the classroom setting, examinations, pedagogical culture, and learners' state of mind. Further studies are recommended to establish relationship between contextual factors and question presentation practices, and on the influence of contextual factors on cognitive level of questions and responses.

Key words: *Traditional Classroom Questioning, Quality Classroom Questioning, Information Processing Model, Contextual Factors.*



Introduction

In the teaching and learning process, one of the many tools available to a teacher to practice is classroom questioning, which Dergisi (2006), views as the strongest tool to teach students how to think, and as a tool of retrieval practice in learning process (Perry et al., 2021). However, Walsh and Sattes (2017) observe that in classroom questioning, there is traditional questioning and quality classroom questioning in which the latter starts by, introducing a quality classroom question that directs learner attention, encourages thinking, and promotes in real learning. There is therefore a need to explore on the practice of quality classroom questioning by teachers.

Teachers generally use questioning in the daily teaching and learning process, thus pointing to the fact that teachers are aware of classroom questioning. However, Robitaille and Maldonado (2015) argue that having knowledge about quality questioning, may not mean that the teachers are actually practicing the same. Moreover, Yang (2017) observes that, teachers' classroom questioning exhibits difficulties, such as, asking with no intention for answers, asking questions for the sake, learners not being able to respond to questions, thus affecting the quality of classroom questioning. There is therefore a need to explore the teachers' knowledge of quality questioning, and practice of the same.

Context-dependent factors tend to shape the questioning skills and actual practice of questioning in class. Context as viewed by Tennant (2017) entails the circumstance that forms a setting for an activity. Context dependent factors can therefore be said to be those factors that relate to the circumstances that form the setting for quality classroom questioning. Pedder (2010) argues that it is important to recognize the basis for complexities and challenges teachers and students face in incorporating assessment in the teaching and learning process such as, nature of classrooms,



changes in teachers' and students' conceptions of their classroom roles, teacher flexibility, and professional learning. In addition, Massonnié et al., (2020) views classrooms as places prone to incoming audio effects, such as external sounds. Similarly, Perry et al., (2021) argues that there is a substantial variation in working memory capacity between individual learners that may require consideration during questioning. This study therefore will focus on the contextual factors that are instrumental in shaping quality classroom questioning.

The decision to research on quality classroom questioning practices was grounded on the universality of classroom questioning in education and being applicable to all the teachers and students. This study was conducted in form four in a day, mixed secondary school, which has five academic departments with a total of 20 teachers. Form four was selected since the learners have selected their preferred subjects, and at this stage considered to be in a senior class, which as argued by Adekoya et al. (2013), have developed innate abilities in the learning process. It can be argued that for the period they have been in school, the students and the teachers in form four understand the questioning practices that go on in their classes.

The context dependent factors that shape teachers' skills and actual practice of quality classroom questioning are not well evident. This resulted into a study that explored the context dependent factors that shape teachers' practice of quality classroom questioning in the teaching and learning process in a form four classroom. The main objective of the study is to explore the context-dependent factors that shape both teachers' questioning competences and actual practice of quality classroom questioning. The study attempts to answer the questions

- i. What context dependent factors shape teachers' competences in classroom questioning?



- ii. What context dependent factors shape the teachers' actual practice of classroom questioning?

The findings of the study help teachers focus their thinking towards quality classroom questioning in their teaching and learning processes, by factoring in contextual factors. The results further inform the integration of quality questioning in the institutionalization of formative assessment. In addition, the study will help researchers institute further research into quality classroom questioning based on the variables that result from the study. This study was carried out based on the assumption that during the teaching and learning process, teachers tend to ask questions, therefore there are practices manifested in the questioning process, that are worth exploring

Theoretical framework

Blooms taxonomy and the Information processing model were used as theoretical framework for this study. The Bloom's taxonomy informs the analysis of the cognitive level of questions used by teachers based on the six levels of complexity (Bloom et al., 1956; Forehand, 2011; Krathwohl, 2002; Teachthought staff, 2019). Bloom's taxonomy generally looks at three domains, that is, affective, psychomotor and the cognitive domains. The study however inclined more towards the cognitive domain as revised by Krathwohl (2002). Nayef et al. (2013) highlights that the Bloom's taxonomy provides a means to decide the cognitive level of questions asked. Additionally, in a study by Ertmer et al (2011) to examine the relationships between the level and structure of question prompts and levels of critical thinking demonstrated by students' responses,



the Bloom's taxonomy has been used to classify levels of teachers' questions and levels of students' responses.

Information processing model has been used to analyze how the questioning practiced directs learner's attention, encourages thinking and promotes real learning. According to Robbins (2003) the information processing model of learning examines how learning takes place using "mind as a computer" metaphor. According to the model, the internal structures of the learners' mind consist of sensory memory, short term memory and long term memory all working as a process. The information enters the sensory memory, stored temporarily in the short-term memory, and then the long-term memory which connects new concepts to the previously learnt concepts. This study therefore explores the contextual factors in practice of quality classroom questioning, in gaining student attention, bringing to mind the relevant prior learning, organizing information, and repetition of learning (Robbins, 2003).

Methodology

Research design

This study was based on the interpretivist paradigm, in which the context dependent factors shaping quality questioning is to be understood and interpreted. The study was exploratory in nature based on a qualitative study approach. Qualitative approach is commonly used in education and enables for flexibility in the data collection process as highlighted by Creswell (2007) and Merriam (2009). Exploration here is used due to limited understanding about context dependent factors shaping quality questioning practices manifested during questioning, in the teaching and learning process, hence worth studying (Stebbins, 2001). The information collected may be false, and since a small sample is involved, the results may not be representative of the general



population. Furthermore, the interpretation of data may be biased and judgmental. However, Owen (2014) claims that an interview aims at finding out the peoples' perceptions about an event, occurrence or object. Therefore, the researcher's main aim is to seek the interviewee's understanding of the context dependent factors that shape quality classroom questioning.

Selection of participants

Purposive sampling method was used to select 4 teachers and 6 students as research participants. The suitability of purposive sampling as Elo et al. (2014) argues is where the informants, who the researcher is interested in, are considered to have the best knowledge of the information sought. As explained by Tongco (2007), purposive sampling is a deliberate, non-random technique of selecting participants, based on the required qualities of the informants. Palinkas et al. (2015) argues that purposeful sampling involves identification and selection of participants conversant with a phenomenon of interest. The researcher therefore used purposive sampling to identify the form four learners and teachers who met the criterion set by the researcher.

Data collection methods

Classroom observations, semi-structured interviews, and document analysis were used as the methods of data collection in this study. Classroom observation was used as one of the methods of collecting data, and the qualitative data underwent thematic analysis. Merriam (2009), and DeMonbrun et al. (2015) view observation in a qualitative enquiry is an important data collection method to conduct researches in educational contexts. Classroom observation was therefore relevant for this study, being in an educational context.

The semi-structured interviews were conducted on the students and teachers to extract in-depth information on practice of quality questioning. This method was selected for its flexibility



as viewed by Dudovskiy (2019) and Dowling et al. (2010). The process included three categories of questions, that is, main questions as put in the interview guide, the follow-up questions and probes based on interviewee responses. The STAR (Situation, Task, Action, and Result) technique of interviewing was used as suggested by Careers Network (2016).

Document analysis was carried out on lesson observation tools, schemes of work, records of work covered, learners' books and lesson attendance forms. To establish convergence and corroboration, document analysis was used in conjunction with the students' and the teachers' interviews, and classroom observation. Research questions were used to define the information to be found out, and then transcribed data from the interview used to select the fitting data from the documents. The information was then coded, analyzed and interpreted in consistence with ten-step-approach provided by Rasch (2020), for qualitative document analysis.

Research instruments

Classroom observation protocols as used in this study were designed following the framework of the Teachers Service Commission classroom observation form, but focusing on the questioning practices in the lesson. The protocols documented aspects of classroom questioning including, questions asked, timing of the questions, information about the questions, structuring of responses and the nature of student responses.

The interview guides were used to conduct interviews both face to face, and on phone. This study was based on three research questions each split into three interview questions, in both the students' and the teachers' interview guides. The interview questions were designed to encourage the respondents to tell their experience story, of the process of questioning in the classroom. This is because the method of analysis was based on narration.



Document analysis protocols were used in the collection of data. The information obtained about the questioning practice includes information on lesson topic, learning outcomes and activities related to questioning. The document analysis guide lists the documents required for the study such as lesson observation forms, schemes of work, records of work, learners' books, and lesson attendance forms.

Data analysis

Thematic analysis of data which as argued by Jugder (2016), facilitates an investigation of the interview data from a data driven perspective and a perspective based on coding in an inductive way, was employed. On the classroom observation, and interview, data analysis started as the study began by analyzing the field notes from the observation and interviews. The lesson videos, and interview audio were played several times and transcribed upon completion of data collection process. These were read several times, and analyzed for open coding (Creswell, 2007; Lewis, 2015). The coding was guided by the Bloom's taxonomy, and the information processing model. This was followed by axial coding where the occurring patterns across codes were determined. Finally, selective coding was done while focusing on the main ideas identified, then the similar codes categorized into themes. The findings were then reported through a narration.

This study employed both descriptive and evaluation coding. Saldaña (2009) has recommended descriptive coding especially for studies that involve document analysis since they begin with general questions. This study involves document analysis, hence the relevance of this descriptive coding method. When more documents added were not leading to new themes, it was concluded that data saturation had been achieved. The findings were reported descriptively through a narration.



During the whole process of coding, an analytic memo was written that was to aid in the analysis. Owen (2014) observes coding to be an interpretive act that is a transitional process between data collection and more extensive data analysis. This can be said to form a basis for deeper understanding of the data collected. The analytic memo aided in searching for patterns and themes for deeper understanding of the quality classroom questioning practices from within the responses. This aligned the codes to a more analytic format of the data obtained from the class observation, interview and the document analysis.

Limitations

The study was conducted on one school and in one class, though different subjects were covered. The research was also conducted in a mixed day school, found in a rural setting. As a result the findings cannot be generalized to urban schools, and full girls, or boys boarding schools, as the contexts may be different. Limited time and the effect of the COVID-19 pandemic could not allow collection of more extensive information from several class observations. However, attempts were made to observe more than one lesson conducted in different streams and subjects.

Delimitation

The researcher chose to explore quality classroom questioning as practiced by teachers in the teaching and learning process. This is because it is considered the strongest tool to teach students how to think Dergisi (2006). Since there is traditional questioning and quality questioning, the researcher realized that there is no much literature that has been reviewed on quality classroom questioning basing on Bloom's taxonomy and Information Processing Model as theoretical frameworks. This study therefore focused on exploring quality questioning practices while interpretation was restricted to the Bloom's taxonomy, and the information processing model.

**Rigor and trustworthiness of the study**

Rigour and trustworthiness as argued by Connelly (2016) is meant to ensure degree of confidence in data, interpretation, and methods used. It involves establishing transferability, credibility, dependability, and confirmability which is consistent with Lincoln and Guba (1985). This study being qualitative in nature, the interpretations the researcher accords the interviewees' responses may be subject to bias. As a result steps to ensure trustworthiness at all stages of the study were carried out.

Credibility was established by prolonged engagement with the interviewees, use of three data sources, carrying out member checking and keeping a research journal. However, Polit and Beck (2017) argues that by simply learning that member checking was done, readers may not develop much confidence in the study as some participants may conspire to conceal some information. In this study, opportunity for participants to conspire was not provided, as the participants were not aware of participation of each other.

Transferability according to Ghafouri and Ofoghi (2016) implies that findings in this study will be same as findings of a different study in the same context and suitable for future use. Semi-structured interviews together with comprehensive description of findings have been done. Confirming evidence of influence of contextual factors on quality questioning practices was obtained from the listed professional documents and learner books.

Dependability according to Ghafouri and Ofoghi (ibid) implies the ability of another researcher to pursue the methods and conclusions made by the main researcher. In this study, this was done by having more than one coder, being able to access tape records and data registry and



notes taken during interview. In this study therefore, an external reviewer was able to access the interview transcripts, observation videos, and the interpretations.

Confirmability, which Polit and Beck (ibid) explains that it concerns establishing that the data represent the information participants, and not the researchers' biases, was also ensured by video recording of the lesson, then lesson observation forms filled together with the teacher who conducted the lesson. The findings on the questioning practices as well as details regarding each observation, were then discussed to ensure accuracy in findings. Data triangulation was done and leading questions avoided. Peer review of the transcripts and their interpretations was done in this study.

Ethical consideration

Ethical consideration in a qualitative research can be said to involve steps aimed at ensuring the protection of human subjects. Arifin (2018) argues that it in all stages of a qualitative study, it is crucial to consider ethical issues. This can be said to be in a bid to establish a balance between the potential risks to the participants and data, and the benefits resulting from the research.

The first stage in this study was to obtain ethical approval to access the participants. The second stage involved the process of obtaining consent from the participants. The participants were treated with anonymity and confidentiality. Data analysis and dissemination of the findings were carefully managed. The regulations on the COVID-19 pandemic were followed to ensure safety of the participants.

Data transcription was privately done to eliminate the probability unauthorized people hearing the recordings. In presenting the findings of the study, coded identities have been used to refer to the participants in the verbatim quotes. Written document which may have contained the



participants' personal detail, such as consent forms, were kept in a locked cabinet accessible to researcher only. Analysis of data was done as data collection continued, after which the transcribed data was independently analyzed. The data collected was stored online on google drive, OneDrive and email, all password protected to ensure no loss.

Findings

The purpose of this study was to explore context dependent factors that shape teachers' skills and actual practice of quality classroom questioning. The findings that emerged from the data collected and analyzed using the theoretical framework that was adopted for this study is now presented in this chapter. The main question that the study attempts to answer is, "what context-dependent factors shape both teachers' questioning skills and actual practice of quality classroom questioning?"

Context-dependent factors in preparation for questioning

As evident from the responses, these contextual factors that influence questioning preparation include examinations, school and national policies. First, the learners considered questions in the context of the examinations. Asked about examinations and questioning in the classroom, a learner responded as follows.

"Those questions can make us understand more than we were to understand before and also how questions can be set differently and how they can be twisted and varied in an examination situation." [Jackson, personal communication, September 11, 2020]

It is evident that learners also look at questioning process in the context of examinations. The teachers therefore adapt questioning to examinations in line with the response given below,



“They get sample papers for agriculture concerning the question he asked in class in order to make the student to understand more on what he said during the explanation”[Victoria, personal communication, September 11, 2020].

“So maybe the questions he is asking are those that mostly are set in the examinations” [William, personal communication, September 16, 2020].

It is therefore evident that examinations are a contextual factor that influences questioning in the classroom. The teachers therefore adapt it to classroom questioning by asking questions related to examinations and asking those questions that are commonly set in the examinations.

The other contextual factor manifested in the classroom questioning practice is policy. There are national and school level policies that tend to influence or are influenced by the questioning practices. The first factor is on the consideration of national policies touching on the duration of a lesson. This has influenced the number of questions a teacher schedules in a class. One of the teachers responded as follows,

“National Policy where a lesson is stipulated to last 40 minutes, plays a great role... you may not be able to ask so many questions...in a duration of 40 minutes, I always ask questions in a period of 8 to 10 minutes...”[Liam , personal communication, September 11, 2020].

“I think questions should be asked frequently throughout the lesson, maybe up to six times or more within a lesson. Maybe within a lesson of 40 minutes, I will ask a question after every 8 to 10 minutes.”[Jack, personal communication, September 12, 2020]



The influence of the national policies to fix the duration of a lesson, which in turn restrict the teachers on the number of questions to ask in as much as teachers may set to ask as many questions as possible.

It is also evident from the staff minutes that the teachers questioning practices tend to influence school policy interventions, in a way that they expect the questioning practices to be favored. This is in terms obtaining revision materials, and allocation of more time. These are captured in minutes as follows:

“It was recommended that administration to buy exams....there is need for more revision materials....”[Personal communication, September 11, 2020]

“... it was agreed that the candidates will be taken through as many revision questions as possible ... requested for more time to be allocated for mathematics so as to increase contact time”[Personal communication, September 11, 2020]

The suggestions to obtain more revision materials, having as many questions as possible, and allocating more time, are all aspects which touch on school policy issues and that through classroom questioning, the policy could be influenced.

Context-dependent factors in question presentation

From the findings, the contextual factors that may shape question presentation may include, learners being furious, school policy, and disappointment during questioning process.

Learners maybe in different states of mind, that is, maybe furious and thus may affect the teachers process of questioning. Furious learners are those who behave angrily in the classroom. Questions can be seen here to be affected by furious learners in class.

The teachers responded as follows



“... Some of them will throw answers and therefore some learners will want to know what has happened and this will affect the whole class” [Layla, personal communication, September 18, 2020].

The teachers understand that when learners are furious, the questioning process will be affected as learners may give irrelevant or arrogant answers.

In this context the teachers adapt to it in a professional manner, by bringing the learners down first. The teachers when asked about handling the furious learners responded as follows:

“...so incase one student is furious, what you have to do is to, since you are a professional, first you don’t take things personally and then create a space setting. You have to demonstrate non-threatening body language, you have to wait, use positive communication, you listen and then you find a common ground, maybe you can now address that student personally or address it to the whole class...”[Bella, personal communication, September 18, 2020].

This affects questioning in that you may not ask the furious learner questions immediately, thus question distribution has been disrupted, and hence the teacher tends to handle the learner by bringing them down first before directing any questions to them.

Another contextual factor that affects questioning process in the classroom is the reaction of the students. The reactions of learners as evident from the responses may influence the distribution of questions, in some cases may lead to teachers stopping questioning process. The teachers responded as follows:

“Reactions of learners would affect my questioning in class such that in class you know we have categories in class. We have those who are bright and those who are in the



middle.....and those who are weak students, so I would ask questions that are in a way that all of them can answer. I will not ask a question that will kind of belittle the weak students and give the bright students glory” [Jack, personal communication, September 12, 2020]

In this response it can be seen that the anticipated reactions of learners make teachers distribute questions in such a way that there are particular questions directed to perceived weak learners, and questions directed to perceived academically bright or strong learners. The skill manifested here is the establishment of equality of learning opportunities in the questioning process.

Context-dependent factors in Response and Feedback processing

The teachers also tend to ensure that learners enjoy psychological security during the questioning process by ensuring that the learners do not experience attack from either fellow learners or the teacher. The teachers do this in a number of ways, according to the following response given by the learners:

“... if someone gives an answer and the others shout “NOO” to signal that he is not right, is a reaction that tends to demoralize others. So, these kinds of actions, the teacher tends to stop them. The teacher stop and discourages the class by telling them to always give time to those who are giving answers” [Jackson, personal communication, September 11, 2020].

From this response, it is clear that the learners are aware of the practices during questioning that can result to psychological insecurity that may put them off from learning. The learners however report that teachers act in a manner to ensure that learners enjoy psychological security by stopping learners from putting others off.



Some learners however expressed that the teacher's practices tend to stress them during questioning at the point of obtaining responses. A learner expressed that in some cases when a teacher asks a question in class and nobody was answering, the teacher will always resort to the same learners to give a response. These same learners as a result feel stressed and uncomfortable, according to the response below:

"This happens mostly when a teacher asks questions in class and you know people will not answer, so it is obvious the teacher will come to you to answer that question, yet at that time, you may also not know the answer. So, I get stressed up when the teacher asks others a question and you know very well he will not stop asking that question unless it comes to you" [Victoria, personal communication, September 12, 2020].

This means that the teacher perceives some learners as academically strong, so tend to ask questions which the other class members may not be able to answer, but assume that the academically students will answer, so will always land on the same learners whenever there is no response coming from the learners. This as a result makes these learners feel psychologically insecure.

Discussion

Classroom questioning as a process

The findings of this study are based on the aspects of quality classroom questioning, which can be seen as a process that starts from question preparation to response and feedback processing. This is consistent with views of scholars such as McCosmas & Abraham (2004); Jackie A. Walsh & Sattes (2017) who view quality questioning as a process from preparation to polishing and



improving the questioning process. In these processes, there are the context-dependent factors that shape the teachers' competences and practice of quality questioning.

Contextual factors that shape teachers' questioning competences.

In practicing classroom questioning, the teachers practice different ways of adapting the questioning practices to contextual factors. The teachers expressed knowledge of contextual factors that may influence the practice of questioning. This is evident from the responses teachers gave on planning, dissemination and final delivery of classroom questions. This is consistent with Morales et. al.(2019) who argue that teachers seem to have skills in including questions across different difficulty stages that entail competent use of and handling of responses to, inquisitive questions, unplanned questions and higher order thinking questions.

Teachers are seen adapting their questioning to examination formats. The learners stated that teachers get sample papers based on the question asked in class to make the students to understand more on what he said during the explanation and those that are mostly set in the examinations. This is consistent with Robbins (2003) who explains that this promotes real learning by helping learners find out what sort of questions have been asked in the past, thus identifying the information they need to know. This is as argued by Perry et al. (2021) helps promote real learning, since it exposes learners to question types, thus the working memory is not overwhelmed and learning will continue. However, Sardareh et al. (2014), Walsh and Sattes (2017) and Yang (2017) suggests the need for teachers to give consideration to content focus, instructional purpose and cognitive level at which they want students to think while designing questions. It can therefore be argued that through examinations, then these suggested considerations can be achieved.



The other contextual factor that shape teachers' competence in questioning is learners' psychological security during the questioning process by ensuring that the learners do not experience attack from either fellow learners or the teacher. The learners report that teachers act in a manner to ensure that learners enjoy psychological security by stopping learners from putting others off. In offering psychological security to the learners as they react to the questions, the teachers exhibit the skills of minimizing interference from other learners as one student is responding to the questions. This is consistent with the findings of Robitaille and Maldonado (2015), where teachers stated that they first established an environment of respect and rapport where learners felt emotionally safe and comfortable enough to be wrong. Massonnié et al. (2020) however argues that there are students with higher switching skills who are able to refocus on the activity that was interrupted especially when responding to a question. Therefore, the psychological security offered by the teacher as found out in this study can be argued to be quite instrumental to learners when responding to questions.

Contextual factors that shape teachers' actual practice of questioning.

The teachers could be seen to either rephrase or repeat their questions based on learner reactions during the lesson. The teachers reported that sometimes learners may throw answers that are undesirable when asked questions. Pedder (2010) argues that this consideration of contextual factors is important in incorporating questioning in daily classroom teaching, as it is necessary to adapt questioning to developments that unfold before and during lessons, such as learner reactions during classroom questioning. This is consistent with Perry et al. (2021) who argues that considerations need to be given to effect of emotions such as anxiety on a learner's working



memory during classroom questioning. Learner reactions can therefore be argued to influence the aspects of questioning such as wait-time, question distribution and response structures.

Question distribution is also affected by the learners' state of mind, such that when a learner is furious, the teachers tended not to direct questions to them at that moment. Based on this response it can be seen that the anticipated reactions of learners make teachers distribute questions in such a way that there are particular questions directed to perceived weak learners, and questions directed to perceived academically bright or strong learners. However, Milawati (2017) lists a number of purposes of classroom questioning, including stimulating student participation, involving students in creative thinking, control behavior and support student contribution in class. The competence exhibited here is the establishment of equality of learning opportunities in the questioning process.

The other factor that seems to shape quality classroom questioning is the school's pedagogical culture. This according to Morales et. al. (2019) entails the framework and mechanism for planning, delivering, and evaluating pedagogical processes and the extent by which performance and teaching focus is advanced. It can be argued that this is done through the national and school policies. The national policy guides on lesson duration and this in turn restricts the number of questions that a teacher can ask within a lesson while at the same time teaching. It was evident from the departmental minutes the appreciation of early completion of syllabus, which then prompted a suggestion that as many questions as possible to be presented to the learners. This is however not consistent with Pedder (2010) who claims that many teachers felt constrained by a policy context that encouraged rushed curriculum coverage, and teaching to test. The teachers were however seen to distribute the questions according to their own plans, present questions suitable



for their planned purposes and control the number of questions within the available time. This is in agreement with Schulte (2018) that implementation of a policy at classroom level entails the “politics of use”, where contextual factors come into play.

At school level, policy development has implications of helping determine the school’s preferences towards policy choices, such as, crafting agendas to improve performance, like in classroom questioning. From the findings, teachers are seen to recommend to the administration to buy more revision materials, allocate more time for mathematics and that learners be taken through as many questions as possible. In this context, the school policy is understood as the authoritative allocation of values. Lipskys, as quoted by Khan (2016) views teachers as the real policy makers being the “street level bureaucrats”, since the decisions they make affect the successful outcomes of the policies. Through classroom questioning, there is the bottom up approach to creation of policy intervention, since according to Weimer and Vining (2011), it starts with the actors involved in questioning, the strategies they use, and activities they undertake. On the other hand, Khan (2016) criticizes the bottom up approach for its limited explanatory ability of the implementation dynamics. However, it can be argued that classroom question operates in the context of policy, and in an attempt to polish questioning practices, the teachers tend to use the experiences to influence the creation or change of various policies.

Summary, Conclusion and Recommendations

Summary of findings

The teachers’ process of questioning in the classroom is shaped by a number of contextual factors. From the findings these were identified as influence of examinations, school level policies, national policies and the learners’ state of mind. These factors influence the role of the teacher in



the questioning process, role of the student in the questioning process, the purposing of the questions, the teacher-to-learner interaction, and the learner-to-learner interactions. These in turn will determine whether the practice is traditional or quality classroom questioning.

Conclusions

The study, using classroom observation, document analysis and semi-structured interviews conducted on 4 teachers and 6 learners, explored context dependent factors that shape quality classroom questioning as practiced in the teaching and learning process. Practicing quality classroom questioning requires that teachers conduct a questioning process that directs learners' attention, encourages thinking, and promotes real learning. In this regard, the Bloom's taxonomy and the information processing model were used as the theoretical framework for this study. The Bloom's taxonomy was used to analyze the cognitive level of questions asked by the teachers. The process of delivering the questions have been analyzed using the information processing model to determine if it, directs learner attention, encourages thinking and promotes real learning. It can therefore be concluded that the findings answer the research questions that this study sought to answer.

Recommendations for further study

Following the results of this study, there are a number of questions which come up that will call for further study. The questions arising include; what is relationship between the contextual factors and the question presentation practices; what influence does teachers' special considerations during questioning, have on the preparation skills for questioning; how do the contextual factors influence the cognitive level of questions presented by the teachers and the responses given by the learners.



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