

Dimensions of Questioning: A Qualitative Study of Current Classroom Practice in Malaysia

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Abstract

This study investigated questioning as practiced in Malaysian secondary school classrooms, to determine teachers' rationale for adopting certain techniques of questioning, and to use the findings to inform teacher education. Questioning is a central aspect of any classroom interaction as it serves so many functions but it is still an under-researched area in the Malaysian classroom context. This study employs an in-depth naturalistic approach and focuses on every day classroom events pertaining to questioning. Research constraints faced in conducting the fieldwork included dealing with the authorities, and the timing and duration of research as constrained by school schedules and national holidays presented by the multicultural milieu of Malaysia. It was found that the majority of questions set by EFL and science-as-content-taught-in-English classes were low-level and factual, and not designed to encourage critical thinking on the part of learners. There was a mismatch between what is stipulated by the national curriculum and how teachers actually teach in terms of posing questions. While national policy stipulates helping learners become critical thinkers, teachers seem concerned with other, short term goals. For instance, teachers' beliefs about their students' academic needs and what teachers should do in a classroom make them tailor their questions to align with the SPM examination (Malaysian Certificate of Education) with the result of posing more questions at a low-level factual category.

Teachers' Questioning in Classrooms

Questioning has always been acknowledged as the stock-in-trade of classroom teachers and fundamental to outstanding teaching (Klein, Peterson, & Simington, 1991; Frazee & Rudnitski, 1995; Nunan & Lamb, 1996). Effective questioning by the teacher is believed to focus students' attention to understand lesson content, arouse their curiosity, stimulate their imagination, and motivate them to seek out new knowledge. In short, questioning, done skillfully, would elevate students' level of thinking (Muth & Alverman, 1992; Orlich, Harder, Callahan, Kauchak, & Gibson, 1994; Ornstein, 1995).

In reality, effective questioning does not always happen, even among teachers with considerable experience in teaching. Nunan and Lamb's (1996) research on questioning in language education reveals that over the years, teachers still pose questions in much the same way as always, with most of the questions low-level, despite improvement in teaching materials, curricula, and methods of teaching (see also Ornstein, 1995). Findings from Ghazali's (1998) study on questioning in Malaysia indicate that most teachers have problems utilizing the whole

range of questions (low- and high-level thinking, convergent, divergent, and literal and inferential questions) available to them. Low-level thinking questions invoke lower cognitive processing such as memorizing facts and concrete information, and are useful for students who have no pre-requisite knowledge and who need to experience simple questions before moving on to complex and more abstract thinking (Ornstein, 1995). Literal and convergent questions are also low-level. Literal questions have obvious intent and answers can be lifted directly from the text (Cruickshank, Bainer, & Metcalf, 1995; Muijs & Reynolds, 2001). Convergent questions deal with facts, and also with logic and complex data, abstract ideas, analogies, and complex relationships (Ornstein, 1995; Moore, 1995). An example is "Who wrote the novel The Pearl?" In contrast, high-level thinking questions go beyond memory and factual information, and involve analysis, synthesis, cause and effect relationships, or problem solving about complex situations (Ornstein, 1995; Arends, 1997). Divergent and inferential questions are high-level. While inferential questions go beyond basic meaning and require learners to apply their prior knowledge in trying to decipher their intent (Frazee & Rudnitski, 1995), divergent questions deal with opinions, hypotheses, and evaluations; are open-ended; encourage broad responses; and have a variety of appropriate answers (Ornstein, 1995; Moore, 1995; Kauchak & Eggen, 1998). "How does John Steinbeck use his characters to discuss the village community in *The Pearl*?" is a divergent question and "What does this paragraph tell us about the doctor's life?" is an inferential question.

Teachers have the tendency to pose a series of specific, factual, low-level questions that hardly challenge students to think of the answers because answers can be readily lifted from the texts (Moore, 1995). This reliance on low-level questions and neglecting other types of questions promotes rote learning and discourages higher-order thinking processes among learners (Perrott, 1990). The problem is perpetuated when students in Malaysia are perceived as recipients of knowledge, and the teacher as the "all-knowing" feeder of knowledge to the students. This means that the way a teacher conducts a lesson (via questioning) can affect students' performance (Sahin, Bullock, & Stables, 2002).

Questioning in Malaysian Classrooms

Although it is stated in the national *Curriculum Specifications* (Ministry of Education of Malaysia, 2003, p. ii) that "the classroom should be the place for nurturing young minds," in which students are expected to acquire knowledge that can elevate their levels of thinking, teachers' techniques of questioning may prevent students from achieving this. Teachers' knowledge (theoretical or book knowledge of good teaching) and beliefs (perceptions of needed classroom practice) about their teaching and their students' needs and abilities influence the way they implement national education policies in their teaching (through questioning) which in turn may affect their classroom practice, which is arguably in contradiction with the stated national aspiration.

My interest in research on questioning stems from the need to prepare my adult students for classroom teaching and entry into teaching. My clients are student teachers who have to do their practicum at schools for a term before embarking on their careers. These student teachers are assigned to a supervisor at their practicum schools and are required to observe how their supervisors teach during the first week before practice teaching for the rest of the semester. I focus this study on questioning as it is a central aspect to any classroom interaction, and yet, I think, is still an under-researched issue in the Malaysian classroom context.

Context as an Influence on the Study

My choice of method, timing of the study, choice of research setting, and choice of topic were influenced by my context. To elaborate, I conducted the study using a naturalistic approach, a qualitative research method (Hitchcock & Hughes, 1995), to enable me to investigate classroom events (i.e., questioning) in the natural setting of the classroom. I did not impose any intervention on the participants of the study and the flow of the lessons. This allowed me to avoid resentment on the part of the participants (the teachers) for my intrusion into their space. To elaborate, the three teachers had to "consent" to be observed because I had the permission from those in authority to do so. If I were to conduct experimental research that would require them to use "my method," they might resent my presence, my interruption of their teaching schedule, and more importantly, using my method over theirs would imply they were weak teachers. Using a naturalistic approach allowed me to obtain in-depth data on what actually took place in the classrooms. Having to request permission from various authorities (the Ministry of Education, the State Education Department, the Economic Planning Unit, etc.) to gain access to the research setting was another factor for choosing qualitative methods for the study as only one school was the setting of the study. Thus the small population (seven teachers and twenty students) necessitated the study to use a qualitative approach.

Constraints of time and access influenced my timing to conduct the study. I conducted fieldwork at the school from February to April 2005, as this was the only period suitable for me to stay on a continuous basis for three months. January was too early, as I would not be able to get data because teachers would be busy with registration and other clerical work associated with the beginning of a new semester. May to June was the semester break, so that time frame was not possible. And researchers are not allowed access to secondary schools from July to December, to accommodate the three national examinations in Malaysia taken during this period. The constraint of time to access the setting dictated that I had to request permission from the respective authorities four months ahead of the fieldwork, to give authorities time to process and approve the application.

Malaysia is a multi-ethnic society with many festivals and public holidays that may affect research duration. During my fieldwork, the school had public holidays for the Chinese New Year, Thaipusam, and the Celebration of the Prophet's Birthday, plus one week of intra-semester break in March. My research was shortened by two weeks as a result. To accommodate for this shorter period, I requested permission from the teachers participating in the observation to observe as many lessons related to English and EST (English for Science and Technology) as possible. In selecting a topic to research too, I have to consider the sensitivity of the various ethnic groups in the country and not to research controversial issues or be prejudiced against any particular ethnic group. For instance, if I were to research the low English language proficiency of the Malays compared to their Chinese and Indian counterparts, this might bring forth the issue of the suppression of the Malays during colonial times. Therefore my decision to research teacher questioning is based on the fact that it is a universal issue in education and applicable to all teachers and students regardless of their ethnic background. The study was conducted at a secondary school in a city in Malaysia. I deemed the school an ideal setting for the study as it represented a typical secondary school in Malaysia with a student-staff population comprising the three major ethnic groups in Malavsia, and with students from the middle class.

Research Questions

Three research questions (RQs) were posed in the study:

- 1. What are the levels of questions that teachers pose to their students during lessons?
- 2. What are teachers' conscious knowledge and beliefs about questioning?
- 3. What are students' perceptions of questions posed by their teachers?

I used RQ #1 to gauge teachers' knowledge (theoretical or book knowledge of good teaching) of levels of questions available to them and whether they really pose questions at various levels they claim to know (beliefs, or perceptions of needed classroom practices), as it is postulated in the literature that teachers make excessive use of low-level over high-level questions (Klinzing & Klinzing-Eurich, 1987; Gall & Artero-Boneme, 1994). I used RQ #2 to determine if teachers' knowledge matches with their beliefs. Sahin et al. (2002) indicate that teachers' beliefs (what they think they need to do in a classroom) influence their practice, which means that teachers' beliefs rather than their knowledge (what they know about good teaching through theory or books) could determine their actual practice, with impact on students' learning and performance. RQ #3 allows me to focus on teachers' questioning from the students' perspectives. To date students in this context have been mere recipients of their teachers' teaching and their feelings and ideas pertaining to their learning have not been considered. Additionally, besides giving students an opportunity to express their thoughts on teachers' questioning the data obtained could be used to verify what teachers claim they do (knowledge expressed in the interviews) and what they actually do (practices stemming from beliefs, as seen in the observation sessions).

Method

Participants

Seven English language teachers and two intact classes of Form 5 Science students of the selected school participated in the study. The teachers were selected based on accessibility (Kvale, 1996) as there were only seven teachers teaching English in the school. Their academic qualifications and training were in English and their experience of teaching English ranged from 4 to 26 years. Three of the English language teachers took part in three components of the study namely observations, individual interviews, and extended interviews. Their selection for observation was based on the fact that they were teaching the two classes observed (5A and 5B), they were teaching both the subjects observed (English and EST), and their experience in teaching English (at least nine years).

The two classes of Form 5 formed the student participants of the study. They were selected based on accessibility (Kvale, 1996). The initial plan was to conduct the study with two classes of Form 4 science classes of the school, in accordance with the policy of conducting research in Malaysian classrooms (not to conduct research in examination classes). However, there was only one Form 4 science class in the school and the research design required two science classes for the observation sessions. The school principal relented on the issue when the researcher explained the unobtrusive nature of the study. The two classes were indirectly involved in the study through observation sessions.

Twenty students, ten from each class of Form 5, were directly involved in the study through focus group interviews. They became interviewees by volunteering to participate in the interviews at the suggestion of their teachers (the three teachers who were observed). The teachers helped in selecting students who were not reticent by giving the researcher a list of more than ten names from each class. The researcher then approached the listed students and invited them to participate. The first ten volunteers from each class formed the focus group participants of the study, and were aged from 17 to 18.

Materials

Five research instruments were used for triangulation in the study, namely classroom observations, individual interviews, extended interviews, focus group interviews, and a document review. Since this study was small scale and in-depth, using the five instruments for triangulation would help to validate the findings, since the findings from all the instruments could converge to inform one phenomenon: Teachers' use of questioning in Malaysian classrooms (Burgess, 1993; Cohen & Manion 1994; Bryman, 2001; Holliday, 2002).

Classroom observation protocol. A classroom observation protocol (see Appendix A) was the main instrument of the study. Four observation sessions were conducted for each subject (English and EST) and the two Form 5 science classes (5A and 5B) resulting in sixteen

observation sessions for the entire study. The researcher adopted a naturalistic approach to study teachers' techniques of questioning in the classroom (Agrosino & Mays de Pérez, 2000). This allowed the researcher to observe what actually happened in the classroom pertaining to questioning (Allwright & Bailey, 1991) and yet be unobtrusive (Ackroyd & Hughes, 1992; Bryman, 2001). Furthermore, applying "focused whole-class observation" (Marriott, 2001) enabled the researcher to be "covert," that is to not reveal exactly what she was looking for in the observation. Additionally, having a checklist of criteria to observe helped the researcher focus on aspects she wanted to investigate in the study: levels (low versus high), and teachers' techniques of questioning (Agrosino & Mays de Pérez, 2000; Hopkins, 2002).

Individual and extended interview protocols. Individual interviews were conducted with all seven teachers and extended interviews with the three teachers observed (described above), to gather in-depth information about teachers' knowledge and beliefs on questioning (Arksey & Knight, 1999; Sahin et al, 2002; Marvasti, 2004)(see Appendix B). The extended interviews (see Appendix C) were used to seek clarification for teachers' techniques of questioning, i.e., for teachers to rationalize why they do things the way they do (Merriam, 1988). Ten semi-structured interview items were posed in the individual interviews. The interview items used in the extended interviews were developed based on the classroom observation of the three teachers. Questions posed in each extended interview were based on what was observed in that particular participant's lessons but still within the parameters of the research questions for the individual interviews.

Focus group interview protocols. Focus group interviews (see Appendix D) were conducted with four groups of five students each from the two classes observed. They were used to elicit students' perceptions pertaining to their teachers' techniques of questioning (Morgan, 1997; Krueger & Casey, 2000). There were six semi-structured interview items with a few sub-questions for each question to help the researcher obtain in-depth information from the participants (Mertens, 1998; Fielding & Thomas, 2001) yet had flexibility of questioning (Hitchcock & Hughes, 1995). Additionally, the interview items were translated into Bahasa Melayu (the national language of Malaysia) to accommodate for student-participants with inadequate command of the English language.

Document review. Documents used in the setting (classrooms) during the observation sessions such as teachers' lesson plans, textbook (for English), the novel "The Pearl," students' homework, handouts, worksheets, monthly tests, and mid-year examination papers for both English and EST; and the *Curriculum Specifications for the English Language for Form 5* (Ministry of Education of Malaysia, 2003) were reviewed to authenticate the findings from the other instruments (Mason, 1996; Hitchcock & Hughes, 1995)(see Appendix E for a sample).

Procedure

The pilot study. The observation protocol and the protocols for both the individual and focus group interviews were piloted with a TESL teacher and a Form 4 science class at a secondary school in the same city. The teacher and the class represented a sub-sample of the intended study population (Anderson & Burns, 1989; Arksey & Knight, 1999). Based on the findings from the pilot study, the researcher decided that the interview items for the teachers to remain as they were, to help participants in the actual focus group interviews to open-up and not simply nod agreement to others' viewpoints, and to maintain the time allocation for the individual interviews at 25-30 minutes and for the focus group interviews at 45 minutes.

The fieldwork. The fieldwork was conducted in the following order: the observation, the individual interviews, the extended interviews, the focus group interviews, and compiling the documents for reviewing. This helped reduce "participants' bias" (Cohen & Manion, 1994; Ackroyd & Hughes, 1992) when they may try to accommodate to what they assume the researcher was looking for.

Analyses

The sixteen taped observation sessions were transcribed. Data from the observation transcripts were analyzed based on the intuitive interpretation of the researcher (Kvale, 1996). Initially, the data were analyzed into three broad categories: academic, non-academic, and pseudo questions. Academic questions are related to the content of the lesson (Good & Brophy, 2003). Non-academic questions are posed for management, rather than expecting answers from students (Frazee & Rudnitski, 1995; Hopkins, 2002; Wragg & Brown, 2001)(An example: A teacher asks "Do you agree?"). A "pseudo question" is when the teacher poses a question to the class but then provides the answer to the question (Harrop & Swinson, 2003).

Only academic questions were considered and analyzed further in the study. Academic questions were assigned levels based on Moore's Mental Operation Questions where questions were assigned to four categories: factual, empirical, productive, and evaluative (Moore, 1995). Factual and empirical questions were considered low-level while productive and evaluative were considered high-level. A factual question is posed to find the answer to a problem. The expected one answer is drawn directly from the content of instruction/text (Muijs & Revnolds, 2001; Cruickshank et al, 1995; Good & Brophy, 2003). A sample is "What is the name of the place?" Ouestions at the empirical level involve observation, recall of facts, and possible experimentation. Students need to integrate or analyze given information to arrive at a single predictable answer (Wragg & Brown, 2001; Moore, 1995). A sample is: "Which turns well then, the raw egg or the boiled egg?" Productive questions are open-ended with many correct responses, requiring students to link basic related information with their imagination, to think creatively and to produce something unique (Moore, 1995), for example "What sort of problems do you want to discuss with your close friends?" Questions at the evaluative level require students to make judgments about the merit of information based on internal or external criteria set by some objective standard (Kauchak & Eggen, 1998; Orlich et al, 1994). A sample is "Why do you want to spend time with family members?" Analyses for observation sessions were done directly from the transcripts. Results for the four observation sessions for each subject and class (e.g., English, 5A) were tabulated. Tables for levels of questions were derived from the transcripts in a similar way.

The analyses for the individual interviews, extended interviews, and focus group interviews was similar because basically, they all were interviews, except that in the final stage of the analysis, the data from the focus group interviews were considered collectively (Bloor, Frankland, Thomas, & Robson, 2001). The researcher listed sub-themes relevant to RQ #2 for the individual interviews and extended interviews. Themes from the extended interviews that were similar with those in the individual interviews were merged into the sub-themes for the individual interviews. Similarly, sub-themes for RQ #3 (students' perceptions) were developed for the focus group interviews. Data in the interview transcripts were then coded according to the sub-themes to make them manageable for interpretation (Miles & Huberman, 1994; Coffey & Atkinson, 1996; Arksey & Knight, 1999; Newman, 2000). Relevant excerpts from the transcripts were incorporated in the analysis to substantiate the points, showcase the sub-theme and to give 'thick description' to the analysis (Seale, 1999; Holliday, 2002; Bryman, 2001). These excerpts are shown in quotations.

Results

For RQ #1, Table 1 below shows categories of questions observed in 16 total sessions.

Table 1Categories of Questions in the Study

Total number of questions: 782

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Academic questions: 526 (67.3%)					
Low level questions 458 (87%)		High-level questions 68 (13%)			
Factual Empirical		Productive	Evaluative		
288	170	47	21		
(62.9%)	(37.1%)	(69.1%)	(30.9%)		

The three teachers observed asked a total of 782 questions comprising academic, non-academic, and pseudo questions in 16 observation sessions. 526 questions (67.3%) of the total questions asked were in the academic category. The majority of the academic questions were low-level (458 questions, 87%) and the remaining 68 questions (13%) were high-level. In the low-level category, questions at the factual level outnumbered questions at the empirical level (factual: 288 questions, 62.9%; empirical: 170 questions, 37.1%). This pattern was repeated with the high-level category in which questions at the productive level outnumbered questions at the evaluative level (productive: 47 questions, 69.1%; evaluative: 21 questions, 30.9%).

For RQ #2, the three teachers rationalized using factual level questions because "most of the questions in Paper 2 of the SPM exam are factual questions" (SPM: Malaysian Certificate of Education)(T1-the first teacher). T2 (the second teacher) mentioned that the exam format "uses the ratio 5:3:2 (50% for low level, 30% for intermediate and 20% for high level questions). This is stated in the Ministry of Education circular." An example from the data:

Teacher: "If I were to put one raw egg and one boiled egg in front of you, how would you know which one is a raw egg and which one is a boiled egg?" (The teacher then explained how to answer this type of question in the SPM examination.)

A confirmatory review of the mid-year examination papers for both English and EST revealed that most of the questions were indeed low-level where the required answers were in the form of multiple-choices (A, B, C, D), short phrases, or one-sentence answers. Additionally, the document review revealed that homework assigned to students was "an extension of classroom work" for "tasks that students cannot complete in class" (T3-the third teacher) which means that questioning used in homework was similar to what was experienced by students in class.

Table 2 below suggests that even high-level questions posed by teachers were handled similarly to low-level questions:

Accepting one answer for each question	T1, T2, T3
Elaborating on a student's answer	Т3
Providing answers to own questions	T2, T3
Posing a series of questions	T2, T3

Table 2
Teachers' Techniques of Posing High-Level Questions

Note. T1 = first teacher, T2 = second teacher, T3 = third teacher.

In the classroom observations, all three teachers seemed to accept one answer for each question they posed to the class before moving on to the next question. The teachers did not seem to expect other students to respond to the same question. T3 had a tendency to elaborate on the answer given by her students or to interject her own answer into a student's response, and did not give the student the opportunity to complete the answer. At times, both T2 and T3 provided the answer to the question they posed straightaway, without giving their students time and

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opportunity to answer the question. T3 reasoned: "I get no response even when I give them cues. I don't want to leave the question hanging . . . I elaborate or continue the answer given by students . . . show them how the answer can be elaborated." T2 denied "spoon-feeding" her students and said she provided the answer to her questions only when she was "running short of time." "Students are passive," she said, noting she wanted "to finish the lesson."

Additional data from an English class observation is suggestive of how high-level questions are treated as low-level ones (sample questions from a literature lesson based on the novel *The Pearl* by John Steinbeck):

Teacher: What did the rooster do? (Crowing)

What's Kino's house made of? (Brush)

Any furniture in the house? (No)

What did Kino have for breakfast? (Corncakes)

The teacher formulated the questions based on the novel. The answers given in the brackets were all taken directly from the novel and students gave their answers in monosyllables like those given above.

Another example:

Teacher: "How do you know Kino loves his family? . . . look on page 89"

This question could be at a higher level category because there were a number of places in the novel that students could use to demonstrate this point but when the teacher gave the clue that the answer was on page 89, there was only one possible answer. Students just had to scan page 89, identified the answer and gave the answer to the teacher. Data in Table 2 above also indicate that T2 and T3 had the tendency to pose a series of questions to their class, making them have more questions in a lesson compared to T1. T1 might have posed fewer questions compared to T2 and T3, but her questions were academic questions albeit that they were mostly in the factual level category. T2 and T3 claimed they pose a series of questions to monitor their students to give the answer they wanted (evidence of a belief of what teachers need to do in a classroom).

All seven teachers interviewed admitted to being the questioners but none had exposed their students to techniques of asking questions nor had they encouraged their students to do so. This could be the reason their students (in the focus group interviews) mentioned that even when "sometimes I don't understand what my teacher was explaining to us but I can't just put up my hand and say I don't understand ... so I'll do the research myself" (look for the information on their own) (FG2-second focus group). One reason for this could be that students do not have the experience of asking questions. It could also be due to the Asian culture whereby we are not supposed to question our elders lest we are considered being uncouth.

For RQ #3, in reacting to their teachers' techniques of questioning, students mentioned that there was "no need to find the answer because later (eventually) our teacher will provide the answer" (FG3-third focus group). When asked if they were happy with this situation of not having to look for the answers themselves, they replied, "it's ok, because then we don't have to research for the answer" (FG4-fourth focus group). They were also reluctant to volunteer any answer because "our teacher gives her answer even after we have provided the answer and it's as if that's the only answer" (FG3).

Discussion

The findings can be categorized into four major themes: assumptions of teachers and their

teaching; mismatch of expectations of teachers and the way they actually teach; teachers' knowledge and what they believe are two separate entities; and questioning as the prerogative of teachers in Malaysian classrooms.

Three issues based on assumptions of teachers and their teaching emerged from the study. For instance, society at large assumes teachers know how to pose questions effectively because they are teachers (Muth & Alverman, 1992) since they spend a large part of their time in class posing questions to their students. Since these teachers were teaching English, they therefore should know how to teach literature as well. Another assumption is that teachers of English should have no problem teaching science (EST) in English. However, the findings indicate that the majority of teachers have never received any formal training in asking questions. Not all teachers trained in TESL (Teaching of English as a Second Language) in Malaysia read literature during their university years. Teachers who feel inadequate to teach literature might cope by adhering closely to the workbook, novel, and modules for the subject. Teaching literature in a similar way as that of teaching reading comprehension would not help students to see the layers of meaning and aesthetic values embedded in literary texts. In fact, students might feel bored because it is as if they are having two double-period comprehension lessons within a week. Teaching literature in this way too defeats the purposes of incorporating the literature component into the English language syllabus: to inculcate students with the habit of reading, develop their critical and creative thinking skills and instill them with aesthetic values (Ministry of Education of Malaysia, 2003).

Another finding is a mismatch between what is stipulated by the curriculum and how teachers actually teach in terms of posing questions. Policy makers are aiming at providing learners with a holistic education, and preparing learners to meet the challenges of the real world by focusing on language use in society and everyday life (Ministry of Education of Malaysia, 2003). Education administrators expect teachers to adhere closely to the curriculum in their teaching. Teachers, however, are concerned with short term goals. For instance, these teachers' beliefs about their students' academic needs and what teachers should do in a classroom make them tailor the questions they pose to align with the SPM examination (Malaysian Certificate of Education) and to pose more questions at factual level category. There are many implications of posing questions aligned to the national examinations. From one perspective, this is good because the students will be prepared for the examinations. But from another perspective, this type of instruction will not elevate students' level of thinking. In the long term, students' knowledge of the subject is just textbook knowledge. Students just regurgitate facts that have been given to them earlier and not try to think out the answers themselves. Even those who score high marks in their examinations/tests may do so not so much because they really understand the knowledge they have but because they have become adept at answering exam questions (Perrott, 1990; Ramachandran, 2004; Soosayraj, 2004). The paradox is that while rote memorization may get students passing scores on examinations, these skills will not help them to acquire thinking skills (Ranjit, 2004). The findings also point to the fact that students, regardless of their ability, have not been given much exposure to high-level questions in the classroom. While the curriculum stipulates that students should be taught "how to learn," teachers have been teaching their students "what to learn."

Teachers' knowledge (theoretical knowledge) and beliefs (perceptions of what teachers should do) as separate entities are discerned through the techniques of questioning they applied in their teaching such as teachers answering their own questions; accepting only one answer for a question before moving to the next question; elaborating on or interjecting into a student's response; and posing a series of questions. When the teacher provides the answer for the question she poses to the class, she inadvertently denies her students the opportunity to answer the question and share their ideas with the class. Good questions may malfunction into pseudo questions (Harrop & Swinson, 2003). Posing questions in this way may turn students into passive learners, because in reality, there is very minimum interaction here: Students are mere spectators and the teacher dominates classroom interaction (Brown, 2001; Ranjit, 2004)

In accepting only one answer for each question, the teacher lowers the level of the question (Good & Brophy, 2003). The communication becomes a "closed-circuit" between the teacher and one student, while the rest of the class is not involved (Orlich et al, 1994). When a classmate has already given the answer and the teacher accepts that as the answer, the rest of the class is not challenged to think (Frazee & Rudnitski, 1995). A teacher's tendency to elaborate on a student's answer may have the adverse effect of undermining students' confidence in their ability to answer questions. It also conditions the class to wait for the teacher's response rather than to pay attention to the student answering the question, because the class perceives the teacher's answer to be the better answer (Burden & Byrd, 1994; Orlich et al., 1994). The implications delineated above indicate that teachers may not be aware of their techniques of questioning, and the impact of posing questions has on their students' learning (Good & Brophy, 2003) and how teachers' beliefs influence their practice (Sahin et al., 2002).

Questioning has always been the prerogative of teachers. For students to benefit, there is the need to confront the issue of teachers' dominating classroom interaction through their role as the all-time "questioner" (Arends, 1997; Ayaduray & Jacobs, 1997; Dillon, 1982; Orlich et al., 1994; Ho, 2005; Wajnryb, 1992). Teachers may not be aware that this type of instruction is detrimental for their students' learning when students have no opportunity to express their ideas and opinions, or to ask the teacher to clarify a point because they have never been taught how to ask questions. Therefore, teachers need to be more flexible by allowing students to pose questions to the teacher sometimes, to allow more student-student interaction in the form of discussion, and to let students know that the teacher values the students' thoughts and ideas (Ayuduray & Jacobs, 1997). Classroom interaction needs to be more learner-centred (Wajnryb, 1992) and teachers need to expose their students to the art of asking questions. Only when students are courageous enough to pose questions to their teacher, and to express and share ideas with their classmates will they be able to participate actively and develop their thinking skills (Burden & Byrd, 1994; Orlich et al., 1994)

Conclusion

Many issues pertaining to teachers' questioning have not improved much over the years. This could be due to the assumptions we make about teachers and their teaching, and assumptions made by those at ministries of education that are incongruent with the reality of teachers' practice of questioning. Since questioning is a much-used instructional strategy in the classroom, teachers need to be made aware of the weaknesses in their current techniques. This is especially true for teachers who are assigned as supervisors for trainee teachers doing their practica in schools because novice teachers would look upon them as the role model of teaching.

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Appendices

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Appendix A

Observation Protocol: Classifications of Questions

Behaviour Categories				
Levels of questions asked (RQ1)				
1. Academic: Factual question				
2. Academic: Empirical question				
3. Academic: Productive question				
4. Academic: Evaluative question				
5. Non-academic: questions				
dealing with personal, procedural or disciplinary				
matters rather than curriculum				
(From Hopkins, 2002)	 	 	8 8	

Note. Adapted from Good and Brophy (1997) in Hopkins (2002) and ideas from Moore (1995) and Wragg and Brown (2001).

Appendix B

Individual Interview Protocol

1.	Do you use questions in class/during lessons?
2.	How often do you pose questions in class?
3.	Do you need to pose questions during lessons? (Yes / No) Why? (Benefits of questioning) Why do you pose questions to your students? Do you think it is important to pose questions to your students? In what way do you think questioning helps your students to learn?
4.	How do you pose the questions to your students? (at random, following certain taxonomies, certain principles) Do you apply certain principles in posing questions to your students? What are they? How do you use them?
5.	How do you prepare the questions you use in your lessons? Where do you source the questions from? Have you ever made the questions you use in class, yourself? If yes, how do you prepare the questions? Why do you make the questions? What are the differences between the questions you made and the questions in the textbook/workbook? If no, why?
6.	How do you decide on the levels and types of questions to pose to the class/students? What are the factors you consider in choosing the questions you use (with your students/ in your lessons)? How do you determine the questions you use with your students? What are the criteria you apply in choosing the questions?
7.	Are you aware of different levels and types of questioning? Do you know of any taxonomy of learning? Can you name some of the taxonomies?
8.	Do you think it is good to apply the taxonom(ies) of learning in questioning? Why? Do you think the taxonomies of learning are practical/applicable in the classroom context? Why?
9.	What are the procedures in use in this school, in preparing questions for examinations and tests, at school level?Do you have to prepare the questions for examinations and the monthly tests for your subject (EST or English)?Would you please describe how do you prepare the questions?
10.	Is there anything you would like to suggest/ to add, about questioning? Do you have any suggestions about how questioning used in the classroom can be improved? What do you think are the constraints in questioning and how these constraints can be reduced?

Appendix C

Sample of Extended Interviews Protocol

1.	So, which do you find more difficult, preparing for English or preparing for EST?
2.	During the observation sessions, there were interaction between you and your students but the interaction was rather passive on the part of most of the students. Students tend to give short answers, the questions that you posed were more at factual level, with very few questions at HLT (higher level thinking). So, I would like to know your reasons for posing questions to your students in this way?
3.	Based on the observation sessions, I find that you pose quite a number of non-academic questions during a lesson such as: 'Ok, are you ready?' 'Why don't you bring your dictionary today?' 'Is it because it's too heavy?' I'm not saying that it is wrong, but I am interested to know your rationale for posing such questions to your class.
4.	During the observation sessions, one of your good points is that you pose the question to the class as a whole, then only you call on a student or invite a volunteer. So, the way you pose questions to the class, do you have certain principles underlying your techniques?
5.	 This is rather personal and I hope you don't mind, but based on the observations, I notice that a) you have the tendency to answer your own question(s), and b) to elaborate on your students' responses. May I know your rationale for doing this? (Is there any underlying principle that you believe in, that makes you want to elaborate on students' answers?)
6.	How about with the weak classes? Are there any differences in your way of posing questions to the weak classes? So, do you believe in exposing your weaker students to higher level thinking questions? (expressing opinion, making inference etc.).
7.	I notice that (based on the observation) that you don't assign (many) questions or tasks or homework at the end of your lessons to your students. I would like to know your reason(s) for doing that?
8.	Which do you think your students need more, practice in answering questions orally or practice in answering questions in written form?

Appendix D

Focus Group Interview Protocol

1.	Your teachers normally pose questions during lessons, right? (for all subjects) Are you always able to answer questions posed by your teacher(s) in class?
	Why? (If yes, why? If no, why?)
	Are the questions normally easy or difficult?
	How do you decide that a question is easy or difficult
	What kinds of questions are easy/difficult?
	[How do you categorize the questions (posed by your teacher) into easy or difficult?] What types of questions were you usually able to answer?
2.	What types of questions do you like?
	(questions that you can easily get the answers from texts? Questions that challenge
	you to think?, Questions that require you to look for the answers in the library or to discuss with friends/classmates?)
3.	How do you find the questions posed by your teacher(s) in English and Science classes? (Boring, interesting, challenging, easy, difficult)
	Do the questions asked by your teachers (Science and English subjects) fit with your question type preference in no.2?
	Do you like your teachers' way of asking you the questions?
	If you have a chance to choose the way questions are posed to you (by your teacher) how would you like it to be?
4	Are there any similarities or differences between the questions in your written work
	(examinations, monthly tests, daily exercises) and the questions you are asked during lessons (orally)?
	Are the questions you get in your exams, in your written exercises similar to the questions
	In what way they are similar/different?
5.	Which do you find more difficult to answer: questions in Science lessons or in English
	lessons?
	Why is this so?
6.	Which do you prefer: to answer: questions for EST subject or for English subject? Why?

Appendix E

A Sample Document

EST ____ Monthly Test

Section A

Questions 1-25

For each question in this section, circle the BEST answer A, B, C or D.

Flowering plants and non-flowering plants have several differences. Flowering plants have roots, stems and leaves. They reproduce by seeds. Non-flowering plants do not produce flowers. Some have roots, stems and leaves. Others have simple stems, small leaves but no roots. They reproduce by seeds or spores.

1. Compared to flowering plants, non-flowering plants have

A. no roots	C. small leaves
B. no flowers	D. simple stems

Mars is called the 'Red Planet.' It has an atmosphere containing nitrogen, oxygen, carbon dioxide, water vapour and noble gases. Its atmosphere is 95% carbon dioxide.

2. What is Mars' atmosphere mainly made up of?

A. Nitrogen	C. Noble gases		
D O	D Calandinia		

B. Oxygen D. Carbon dioxide

Section B

Questions 26-40

Read the following passage and then circle the BEST answer A, B, C or D.

People who have high ____(26)____ of cholesterol may be able to drink their way to a healthier heart using sterol-____(27)____ orange juice. Plant sterol are thought to limit cholesterol _____(28)____ in the intestines, thereby reducing the amount that could _____(29)____ arteries. They were put in fatty foods such as margarine and salad dressings because scientists thought the fats would help the sterols be better _____(30)____. Now researchers have found that they also work in fat-free foods, in this case orange juice.

5 marks

26.	A. levels B. dosages	28.	A. intake B. absorption	30	A. digested B. absorbed	
	C. amounts D. number		C. assimilation		C. retained	

27.	A. added	29.	A. stop	
	B. modified		B. clog	
	C. fortified		C. block	
	D. strengthened		D. prevent	

Section C

Questions 41-60

Read the following text and complete the given task

The human body is no ordinary machine. It is a complex combination of systems – circulatory, lymphatic, digestive, urinary, nervous, endocrine and reproductive – all supported by the skeleton and musculature.

These major interrelated systems are each designed for a special function. The skeleton provides our body with a strong framework. Muscles function as the engines of the body. Bones together with tendons, ligaments and fibrous sheaths provide the system for translating muscular