



A Qualitative Study of Cognitive Demand and Pedagogical Practice in Tehsil Kohat, Pakistan

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ABSTRACT

Questioning is one of the key pedagogical processes by which the teachers direct learning, evaluate comprehension, and ensure cognitive processes in the classrooms. The study is a qualitative one that examines the questioning skill of teachers in government primary schools in Tehsil Kohat, Pakistan, specifically in the cognitive demand of the questions and their correspondence to the revised taxonomy of Bloom. The observations and semi-structured interviews were conducted in the classroom and using semi-structured interviews with twelve primary school teachers in ten government schools. Thematic analysis showed that lower-order questions related to factual recollection and fundamental understanding were significantly predominant, and higher-order questions based on analysis, evaluation, and creativity were quite few. The practice of questioning among teachers was also limited due to lack of wait-time, limited probing and evaluative feedback. Interviews also showed that time pressure, big classes, examination based courses, and profession training deficit all contributed significantly to questioning practices. The results indicate the disjunction between pedagogical possibilities of questioning and classroom implementation. The research adds context-specific data of the Pakistani primary education, as well as the importance of specific professional development aimed at increased-order questioning, dialogic instruction, and formative assessment practices.

Introduction

One of the basic instructional practices is classroom questioning, which determines the manner in which students interact with the content, engage in classroom conversation, and build cognitive skills. Teacher questioning in primary school is particularly important in developing basic thinking, language, and reasoning skills (Wragg and Brown, 2001; Walsh and Sattes, 2018). A good questioning will help the teacher to evaluate the level of understanding and bring out the misconceptions and help them think in a deeper conceptual way instead of memorising some ideas. Studies have continuously shown that not every question is as effective as a learning aid. Recall and understand questions are lower order questions that can be used to cover content but when over used, inhibit the ability to reason, analyze and use critical thinking (Redfield and Rousseau, 1981; Chin, 2007). Higher-order questions, on the other hand, welcome explanation, justification and evaluation, thus, stimulating further thinking (Anderson and Krathwohl, 2001). In most low- and middle-income school settings, such as in Pakistan, the classroom interaction is still largely teacher-focused, and in such instances, the interactions between the teacher and the student are short in question and answer format and less frequent in teacher-to-student communication (Hardman et al., 2009; Molina et al., 2020). Systemic limitations to the use of cognitively demanding questioning practices may include large classes, curriculum pressure, and poor access to long-term professional development common in government primary schools. Although questioning is an important process, there is a lack of classroom based qualitative research concerning how primary school teachers in Pakistan actually use questions in teaching. The majority of the published research is based on surveys or achievement performance and has little or nothing to say about the actual practices in the classroom. This research will fill this gap by analyzing questioning methods in Tehsil Kohat in government primary schools by direct classroom observation and teacher interviews using a revised version of the taxonomy developed by Bloom as an analytical tool.

Literature Review

Classroom Questioning and Learning

Classroom questioning has various pedagogical purposes and they are directing attention, evaluating knowledge, scaffolding, and controlling classroom interaction (Chin, 2007). In dialogic view, questioning is not just an act of inquiring but a sequencing, wait-time, probing and feedback process which creates classroom discourse (Alexander, 2008; Kim and Wilkinson, 2019). It has been demonstrated that closed, display, and recall questions are mostly used by teachers, especially at an elementary level (Boyd and Rubin, 2006; Sedova et al., 2019). This type of questioning has the tendency of making the student answers very succinctly and strengthens the recitation pattern of interaction as opposed to lengthy conversation.

Bloom taxonomy and cognitive demand

In his revised taxonomy, Bloom recognises six levels of cognitive processes which are on remembering, understanding, applying, analysing, evaluating and creating (Anderson and Krathwohl, 2001). Remembering and understanding concentrate on lower-level questions because they involve fact and simple comprehension and higher order questions (analysing, evaluating and creating) because they encourage critical thinking and problem solving. It has been found that both the quantity and type of classroom questions tend to focus mostly on lower levels of cognition, which restrict students in their chances to think at a higher level (Demirbaş, 2023; Muhayimana et al., 2022). The knowledge of the taxonomy of Bloom by teachers has been associated with a more

balanced form of questioning by teachers, although most teachers have little formal preparation on how to apply it in the classroom.

Inquiry in Pakistani and Developing Situations.

Research in the developing situation indicates the same trends of teacher-centred questioning based on curriculum requirements, exam stress, and large group sizes (Hardman et al., 2009). In Pakistan, the study indicates that the primary educators engage in questioning on a rote basis, and they have less chance to engage in dialogic or critical questioning (Ali, 2017; Hussain and Sultan, 2010). Nonetheless, qualitative and classroom-based studies that record the occurrence of questioning in actual teaching situations at the primary level are still low. The research is of value to the existing literature as it uses specific evidence of the Tehsil Kohat.

Methodology

Research Design

The form of design used in this study was a qualitative descriptive design, which is appropriate when one is studying naturally occurring practices in the classroom and wants to capture the views of the participants as in-depth as possible (Sandelowski, 2000). The design enabled exploration of the questions strategies in detail, without controlling the classroom conditions.

Participants and Sampling

Purposive sampling was done to select twelve government primary school teachers in ten schools of Tehsil Kohat. Teachers practiced up to Grade 5 and were both city and rural, and of different experience levels.

Data Collection

Two methods were employed qualitatively:

- 1. Classroom Observations:** Observations were made in a normal 45 minutes lesson of each teacher. A checklist was used to record the kinds of questions, levels of cognition, methods of questioning (e.g. wait-time, probing), and student responses.
- 2. Semi-Structured Interviews:** The post-observation interviews examined the teacher perceptions of questioning, difficulties, and professional development requirements. Urdu interviews were made through interviews and tapes and transcribed.

Data Analysis

The thematic analysis was used to analysis data (Braun and Clarke, 2006). Coding of observation notes and interview transcripts was inductive and subsequently the themes were systematised with regard to the research questions and taxonomy of Bloom.

Trustworthiness

Data triangulation, extended interaction and rich description helped to increase the credibility. Analytical rigor was assisted by reflexive memo-writing.

Findings

Predominance of Lower-Order Questions

In all the classrooms that were observed, the majority of questions were related to remembering and understanding. The teachers would often pose questions that require factual answers to ensure that the students were recalling what they had read and the responses would be short and a single word.

Minimal Higher-Order Question Usage.

There were few questions that needed analysis, assessment, or creation. Students were unable to give lengthy responses when asked and teachers would not tend to scaffold when rushing through.

Questioning Techniques Inconsistency.

Wait-time, probing, and formative feedback are all key methods that were not used consistently. There was a lack of wait-time, which resulted in shallow replies and a lack of probing questions to think further.

Contextual Constraints

Teachers cited time pressure, high classes, examination based curriculum and absence of formal training as some of the biggest impediments to effective questioning.

Discussion

The results are similar to the international and local research results revealing that lower-order questioning is prevalent in the primary classes (Chin, 2007; Hardman et al., 2009). Although recall based questions assist in covering the curriculum, they prevent critical thinking and dialogic interaction. The fact that there is low use of higher order questions by teachers is a systemic issue as opposed to being unaware. This gap is further increased by the lack of sustained professional growth of questioning techniques and taxonomy by Bloom.

Implications

Pedagogical Implications

Even where time is limited, teachers require systematic assistance to plan, order and scaffold higher-order questions.

Professional Development

Specific practice in the area of Bloom taxonomy, dialogic questioning, and formative feedback should be provided.

Policy Implications

The curriculum planners ought to be more flexible towards interactive and reflective classroom practices.

Limitations

The researchers restricted the study to the primary schools of one tehsil in the government and used a small qualitative sample. Results cannot be statistically generalized and have rich contextual information.

Conclusion

This paper has shown that questioning is a common practice used in the classroom in Tehsil Kohat, but the pedagogical possibilities of questioning are not exploited. Systemic limitation and reinforcement of questioning capacities in teachers may go a long way in providing cognitive engagement and learning in primary schools.

References

1. Alexander, R. (2008). *Towards dialogic teaching: Rethinking classroom talk*. Dialogues.
 2. Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing*.
 3. Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), 5–31.
 4. Chin, C. (2007). Teacher questioning in science classrooms. *Journal of Research in Science Teaching*, 44(6), 815–843.
 5. Hardman, F., et al. (2009). Changing pedagogical practice in primary schools. *International Journal of Educational Development*, 29(6), 650–660.
- Walsh, J. A., & Sattes, B. D. (2018). *Quality questioning*. Corwin Press. Longman.