January 2005

Researching practice, practicing research: Impact on teaching and learning

Bernadette L. Dean
Aga Khan University, Institute for Educational Development, Karachi

Rahat Joldoshalieva
Aga Khan University, Institute for Educational Development, Karachi

Muneeza Kizilbash
Aga Khan University, Institute for Educational Development, Karachi

Follow this and additional works at: http://ecommons.aku.edu/pakistan_ied_pdck

Recommended Citation
Available at: http://ecommons.aku.edu/pakistan_ied_pdck/174
RESEARCHING PRACTICE, PRACTICING RESEARCH: IMPACT ON TEACHING AND LEARNING

Dr. Bernadette L. Dean
Rahai Joldoshalieva
Muneeza Kizilbash

Abstract

This paper shares the findings of an action research study on the use of whole class discussion (WCD) in the classroom and will concentrate on the benefits and learning that accrue to students and teachers from the use of action research to facilitate discussion. It was observed that teachers appreciated enlarging their instructional repertoire and they also acknowledged that stepping back during discussion, however difficult, had enabled them to learn more from the students and also empowered the students to express themselves and to develop key academic and social skills. During this project, teachers learned how to identify and address specific problems in their classrooms and students displayed a higher understanding of concepts and issues. These and more benefits and learnings will be discussed in detail within this paper.

Introduction

Educators often view learning from two perspectives, either as a product or as a process. In product-oriented classrooms emphasis is on “what” is learned. The learning usually comprises factual information and description of events. In process-oriented classrooms the emphasis is on “how” information is acquired; that is, the focus is on the processes of learning. Research in most developing countries indicates that teaching is product-oriented (Warwick and Reimers, 1995). Teaching is most often the transmission of textbook knowledge from teacher to students through lectures and teacher directed question and answer sessions. Students are expected to memorize the information and regurgitate it in exams. Successful regurgitation of information presented is accepted as evidence of students’ learning. Teaching and learning of this kind while producing “the best parrots” (Hoodbhoy, 1998) fails to prepare students with the knowledge, skills and attitudes required for continuing further education, employment, and citizenship. The focus on products needs to be balanced with attention to the process in which students actively participate in investigating problems and discovering information in relation to their questions and constructing their knowledge.
Review of the Literature
Discussion is a systematic form of group interaction in which people seek to address a question or issue of common concern to them, with the intention of understanding, appreciating or contributing towards its resolution (Dillon 1994). Aggarwal (2001) describes discussion “as a thoughtful consideration of the relationship involved in a topic or problem under study. It is concerned with the analysis, comparison, evaluation and conclusion of these relationships” (p.107).

A review of empirical research on discussion (Gall & Gall, 1976; 1990) found that five types of learning outcomes accrue from the use of discussion. These are mastery of the subject matter discussed, problem solving ability, moral development, attitude change, and communication skills. By using discussion, Dillon (1994) notes that students learn the subject matter discussed, how to discuss, and how to communicate and express themselves better. He also notes that students experience personal growth; they become more independent, more searching and more active. Furthermore, students learn how to work with others and accept differences.

“Discussion is time-consuming, kaleidoscopically unpredictable in process, and uncertain of outcome as much as unsure of success” (Dillon 1994). Teachers are unwilling to learn and avoid using discussion as a teaching strategy because discussion does not come naturally; it is something that must be learned by not only the teachers, but by the students (Dillon 1994). Dillon says that teachers lack experience in conducting discussion and school and societies do not always promote discussion, hindering teachers’ motivation to use the strategy. Farooq (1993), describing the difficulties from a developing country perspective, notes that discussion is not usually used in daily practice because teachers believe it can only be applied in small groups, used for particular topics and is time consuming. He too notes that trained teachers are required to conduct it successfully.

Research design and methodology
The research design used is that of action research. According to Kemmis and McTaggart (1998), “Action research is a form of collective self-reflective enquiry undertaken by participants in social situation in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out.” Elliot (1991) defines action research as, “The study of a social situation with a view to improving the quality of action within it.”

Somekh (1995) cited by Denscombe (1998) states that “action research rejects the concept of a two-stage process in which research is carried out first by researchers and then in a separate second stage the knowledge generated from the research is applied by the practitioners. Instead, the two processes of research and action are integrated.” (p.58) Action research uses a cyclic or spiral process that alternates between action and reflection; this allows one to continually refine methods, data and interpretation in
the light of understanding developed in earlier cycles. In most of its forms it is participative and qualitative (Dick, 1993).

Action research was chosen firstly, because there is evidence that many practitioners (doctors, teachers, psychologists) do very little research (Barlow, Hayes, Nelson, 1984; Martin, 1989 cited in Dick, 1993) and that practitioners learn more if they subject their practice to deliberate and conscious reflection (Schon 1983, 1987). Secondly, action research is usually participatory and there is evidence that more and better learning accrues from working with others; that a partnership in which one works together with colleagues is more ethically satisfying and may be more occupationally relevant (Dick 1993) and this creates a better atmosphere for change.

Research question

The research questions were:

1. What learnings accrue to teachers from the use of action research to facilitate discussion in their classrooms?
2. What benefits accrue to students from teachers using the instructional strategy of discussion?

Research sites and participants
The research was conducted in six sites in five countries; a brief description of each site follows:

- Rahat Joldosalieva worked as a teacher in a public university with four preservice English language instructors.
- Antipas Chale worked as a teacher in a private school in Dar-es-Salaam, Tanzania with two mathematics teachers.
- Farah Huma worked as a teacher in a private school in Karachi, Pakistan with an English and mathematics teacher in the secondary section of the school.
- Haseeb Khan* worked as a teacher in a private school in the rural Northern Areas of Pakistan that was part of a Whole School Improvement Program (WSIP).
- Nakhat Abdulofizov worked in a private school in Khorog, Tajikistan. Unlike the others, his sole responsibility was facilitating teacher education at the school.

Conducting action research to facilitate discussion - Reconnaissance
To understand the research context and the nature of teaching and learning, the teacher educators engaged in reconnaissance using semi-structured interviews, classroom observations, reflection and informal talks.

Teaching and learning in the school context
In all contexts the classrooms were small and crowded which made movement in them difficult for the teachers and students. It was immediately observed that students sat
in rows facing the teacher and the board. The dominant teaching methodology was that of lectures. The teachers also confused recitation with discussion. During what teachers called discussions, the teacher stood at the front of the class and asked questions and the same few students always responded; thus, discussion was mainly dominated by the teacher and these few students. When these few students shared their ideas they did so with the teacher, not with each other. Most of the time, these discussions were not concluded, reviewed or assessed.

Some teachers assigned a question to the class and then divided the class into small groups to discuss the answers. This strategy, however, was more of a competition between the small groups as the group that finished first was given a reward.

Teachers aimed to complete the syllabus as planned no matter how well the students have understood the material. The teachers avoided discussion because it seemed time-consuming and they feared that their content knowledge was not enough to sustain a proper discussion.

In most schools, there was awareness that the quality of teaching was generally poor; therefore, they offered in-service teacher education in the form of Saturday workshops. Ongoing processes like action research were not well understood; with the exception of the school located in the Northern Areas of Pakistan that is participating in a WSIP. When teacher educators were given permission to conduct the action research, the permission did not entail providing equipment or time for training for both teacher educators and teachers. Lack of reading material for professional development in general, on action research and on subject-specific literature on discussion was greatly felt.

Knowledge and practice of research
With the exception of the Northern Areas and Tajikistan, where teachers had the opportunity to be involved in school improvement programs, the teachers did not know about action research. Research was perceived to be theoretical and experimental, something that was done in laboratories or in libraries. Teachers did not understand how they could conduct research in their own classrooms. Some teachers were aware of and engaged in reflective practice but their reflections were only descriptive. The teachers, however, complained about the time and writing involved in documenting reflections.

Reconnaissance-based action plan
The findings in the reconnaissance indicated the need to develop teachers’ understanding about action research and using discussion to improve practice. The teacher educators planned to first teach action research and discussion to the teachers, then support the teachers’ independent practice in their classrooms and finally, encourage teachers to work independently.
Cycle 1: Developing teachers' understanding about AR and DS
All the teacher educators, except Rahat, began to develop the teachers' understanding of action research and data gathering techniques by sharing reading material for the teachers to go over at home. The teachers, however, either did not read the article because of their workload or found the reading too difficult to understand. Teacher educators then went over the information with them.

After exposing the teachers to action research, the teacher educators decided to develop the teachers’ understanding about discussion. Prior to the first lesson on discussion, they read an article outlining what is discussion, the discussion process, the benefits of discussion, organizational arrangement of discussion, and the teachers’ role in discussion. Teachers then raised questions and gave their opinions on the material and through this lesson, built a common conceptual understanding of discussion.

Rahat, instead of reading the article, drew out the main points to make it easier for the teachers to read, understand and discuss the content. Further training was driven by concerns emerging from practice. Teachers used discussion in the class, and through reflection on the lesson, helped to identify a concern from their practice. Group discussion helped to identify ways to address it. This deliberation helped in planning for the next lesson.

Cycle 2: Teacher educator-supported practice of discussion.
Putting theory into practice was carried out differently across the contexts. For instance, in the case of Nakhat and Karim, lessons were planned collaboratively between the teacher educators and the teachers to meet the teachers’ requests and to increase their confidence. In the contexts of Rahat, Farah and Chale, the teachers planned their lessons themselves and then discussed the plan with their teacher educators prior to teaching the lesson in their classrooms.

The teachers then taught the lesson. Dissatisfaction with the lesson resulted in the request for Nakhat to co-teach with one of the teachers and for Karim to demonstrate a discussion in the teachers own classrooms. After some practice, Farah also had to do a demonstration lesson as the teachers wanted to see what it looked like. During the teaching process teacher educators observed the lesson. In the case of Rahat and Nakhat, they were accompanied by at least one teacher at the early stages of the teaching practices.

On completing a lesson, teachers expected condemnatory feedback as was generally given by their supervisors and expressed how they had never before had a ‘critical friend’.

All the teachers were guided through the process of self-reflection on data from the observations to identify areas of growth and areas requiring growth. After each
lesson, sessions, the teacher educators and teachers discussed and addressed issues that had arisen during practice. They wrote their reflections in a reflective journal with the exception of Rahat’s teachers, all the teachers had engaged in writing reflections prior to this project.

During the reflection sessions it was identified that some students were very quiet; they did not share their ideas and only participated during presentations. It was also identified that the students responded in chorus and started talking without listening to the previous speaker. Teachers noticed that they were only calling on active students and were also still finding it difficult to decide when it was they should be silent during a discussion. After these reflection sessions, plans were then made to address all the issues.

**Cycle 3: Independent practice by teachers**

As the teachers became more familiar and comfortable in using discussion as a teaching strategy in their classrooms, they were all encouraged to practice it independently. Only Rahat’s and Farah’s teachers moved to independent practice with another teacher taking the teacher educators’ roles as critical friends.

**DISCUSSION OF FINDINGS**

Below we discuss the learnings that accrued to teachers from using action research and the knowledge, skills, and attitudes developed in students from the practice of discussion in classrooms in developing countries.

**Teachers learning**

Teachers using action research to facilitate the use of the discussion strategy enlarged their instructional repertoire, experienced a shift in their roles in the classroom, and developed new skills and some positive attitudes.

**Enlarged their instructional repertoire**

Teachers expanded their teaching repertoire by learning and implementing the instructional strategy of discussion. Reflecting on their previous practices, teachers acknowledged that discussion is a more interesting teaching strategy than what they had been using and that understanding it has helped them improve their teaching practice. Teachers said that discussion was different from what they had thought it to be, that is, teacher’s questions and students’ answers. Teachers acknowledged that they learned from their own practices. One teacher commented, “I enlarged my methodology of teaching English. Using discussion I learned how to involve students in discussion, how to help students to write a summary of the discussion and how to formulate discussion questions.” (Rahat Joldoshalieva’s teacher reflection)

**Shift in roles**

The teachers’ claims of a shift from their old roles of “controller” to “guide” were substantiated by teacher educators’ observations of discussion in their classrooms.
Teachers controlled students so that their classroom interaction patterns were one sided. Teachers thought this was necessary because, as a teacher exclaimed, “I want to tell students some things which they do not know... I want to summarize discussion myself as they can not do it.” Teachers acknowledged, “It is difficult to change one; as a teacher, I am used to being at the centre of discussion and making conclusions.” In the initial stage, teachers resented sharing their power with the students in class discussions. Although giving up authority was painful for teachers, as time passed they were more willing to share their roles with students. With the shift in roles, teachers’ initial beliefs that there should be a boundary between teachers and students were altered.

Skills and dispositions developed
In the process of using action research to implement discussion, teachers developed new skills and dispositions. Teachers learned how to formulate open-ended questions so as to keep the discussion open to different ideas, experiences and opinions. Teachers acknowledged that probing questions such as, “What do you think...?” and “How would you act...?” augmented students’ thinking and prompted them to give more in-depth answers. A mathematics teacher stated, “If students are stuck, the teacher has to click on them; questions help them to think deeper rather than give an answer at once” (*Haseeb Khan’s personal WCD report). Teachers learned how to reflect upon their lessons and identify issues. They developed confidence in addressing and solving their problems on their own.

The strategy of discussion facilitated the development of new dispositions. Initially, teachers were impatient and did not wait for students’ answers, filling in the silent moments. In English classes, they jumped in to check students’ mistakes in pronunciation and grammar; in math classes they interjected when students did not immediately give the right answer. Over time, teachers learned to be more patient. They began to provide wait time which was acknowledged as an opportunity for the students to gather their thoughts. Teachers recognized that identifying and correcting mistakes while students spoke hindered their part in discussion and that it was better done later. However, teachers also recognized that students would learn more if their mistakes were corrected. Therefore, they collaboratively worked on improving mistakes using audio and video recorded discussions.

Action research facilitates learning from one’s own practice
Teachers learned to identify action specific problems they faced in using discussion. For instance, one teacher specified her research question as “How can I enable the entire class to participate in discussion?” And in her later reflection she shared, “I never thought to identify a problem in using a strategy and working on the problem. Now I have begun to notice my mistakes and try to act on improving the situation.” By focusing on specific problems and using action research, teachers learned how to take alternative actions, make decisions, and record observations and reflections. By its nature, action research requires commitment to documenting actions, reflecting on
them and taking actions to improve the situation. Often teachers felt overburdened trying to combine a demanding teaching workload with systematic and rigorous research (Dick 1993).

Students as a resource
Teachers who initially saw themselves as the only source of knowledge in a classroom began to recognize that students, too, were a source of knowledge. Students brought new information, different ideas, and personal experiences into each discussion. A teacher said, “Discussion helped not only students but even me. I got some information from my students” (Antipas Chale’s teacher report). Teachers also acknowledged that as teachers, they should know more about the topic under discussion, but accepted and recognized they could not know everything and that students can be an excellent resource. A teacher reflected, “I realize I could have read more but I can not be expert in all areas. I was learning from listening to my students. It is a shame I didn’t recognize this before” (Rahat Joldoshaliev’s teacher reflection).

Students’ Learning
Identifying students’ learning outcomes was difficult given the issue of how to define the nature of learning. Learning is usually measured by test scores as stakeholders equate higher learning to higher test scores. However, learning should be viewed more broadly to include understanding of concepts, skills developed and attitudes changed. There is a need to educate stakeholders on these broader ways of assessing student learning.

Understanding of concepts
Students demonstrated their understanding of concepts discussed. A common practice in mathematics classrooms is to follow algorithms and to give problems to students to solve as practice, rather than asking students to demonstrate their understanding. The focus was on the product, that is, the right answer; not on the students’ understanding of the process and explanations of answers. After learning discussion, teachers probed students by asking, “Why do you think so?” and “How did you come to this?” A math teacher shared, “Through discussion my students have learned how to solve math problems in different ways” (*Haseeb Khan’s teacher reflection). An English teacher observed in her classes that students appropriately used new vocabulary related to the topic under discussion and demonstrated an understanding of the vocabulary. (Rahat Joldoshaliev’s teacher reflection)

Skills developed
Students developed social, academic and communication skills while engaging in discussion. Students, together with their teachers, created “Golden Rules” for discussion which required students to demonstrate social skills such as: taking turns, listening to each other, respecting each others’ ideas, and acknowledging differences of ideas. Students also learned to support their ideas and opinions with evidence from not only literature and newspaper articles, but also from their personal experiences. In
addition, students learned to write summaries on discussion. Students demonstrated, their new communication skills by asking questions, seeking clarification and extending their own ideas.

**Attitudes changed**

Apart from demonstration of understanding and skills, students developed positive attitudes from the use of discussion. Initially, observations revealed the students’ unwillingness to share their ideas and recognize different points of view. Gradually, they realized they could learn with and from each other and became more willing to share and accept different ideas. They became more responsible and independent learners by finding materials to use as evidence to support or reject the views and ideas presented. The students’ self-confidence and self-esteem increased as the students slowly overcame their shyness, fear of being questioned, and answering incorrectly.

**Concluding remarks**

Upon learning a new teaching strategy, teachers often find it difficult to apply the strategy in their classrooms. This research has shown that teachers, with the initial support of teacher educators, using the cyclic process of action research, can be gradually encouraged to effectively practice discussion independently in their classrooms and to reflect upon their practice. The use of discussion facilitates students’ conceptual understanding, the development of academic, social and communication skills. Discussion also encourages better attitudes, such as; sharing, cooperation and respect for others. Given the benefits, teachers should add discussion to their repertoire of instructional strategies and use it to enhance the teaching and learning experience.

**REFERENCES**

- Antipas Chale’s teacher report
- Haseeb Khan’s personal WCD report
- Haseeb Khan’s teacher reflection
- Rahat Joldoshalieva’s teacher reflection

STUDENT PERSONNEL SERVICES AND DISCIPLINE