

ISSUES OF PERCEIVING EQUALITY IN A CO-LEARNING PARTNERSHIP IN PAKISTANI SCHOOLS

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This article is premised on the idea of shared ownership between mathematics teachers and mathematics teacher-educators in order to support and examine new ways of teaching mathematics for them, resulting from the learning in a teacher education course. I discuss issues related to the establishment of a co-learning partnership, resulting from my participation as a mathematics teacher-educator in collaborative work with mathematics teachers. The theoretical perspective underlying the collaborative work was driven by the notion of *co-learning agreement* (Wagner, 1997; Jaworski, 2002). I performed two roles:

- the role of teacher-educator supporting teachers who were trying out their new aims of teaching in the classroom
- the role of researcher, collecting data during the teachers' engagement in their learning.

I was also engaged in self-inquiry into my role as a teacher-educator by reflecting on the processes and issues of teachers' learning as well as my participation in the two roles. The analysis of my participation in our collaborative partnership reveals that, although I tried not to dominate, I recognized that my own ethical and theoretical perspectives of being a teacher-educator in the Pakistani context made me react in ways that could be regarded as directing the teachers' thinking and behaviour. This issue became one of the major tensions in my study. I was not aware of it until I experienced the reality of the teachers' practices.

Theoretical understanding of 'co-learning agreement'

Wagner introduces the term of *co-learning agreement* in research relationships between the participants in research. He discusses three modes of co-operation in educational research namely those of *data extraction agreement*, *clinical partnership* and *co-learning agreement*. The differences between these three forms of research relationship determine social arrangement, expectations of the participants, and implications of the research project. In a co-learning agreement, the research is seen as a more interactive social approach for the educational reform process, where

researchers and practitioners are both participants in processes of education and systems of schooling. Both are engaged in action and reflection. By working together, each might learn something more about the world of the other. Of equal importance, however, each may learn something more about his or her world and its connection to institutions for schooling (Wagner, 1997, p. 16).

Jaworski (2002) extends the co-learning idea to the relationship between teachers and teacher-educators, as well as between teachers and researchers. She states, 'a co-learning partnership implies an explicit arrangement agreed between participants' (p. 42). According to Jaworski, the consequences of such a negotiation would be a growth of knowledge for both the participants (*e.g.*, teacher and researcher, or teacher and teacher-educator) with recognition and resolution of everyday dilemmas of teaching, and teachers' learning. Examining the interaction between researchers and teachers under the co-learning agreement, she recognizes the value of discussion among the participants as a mechanism to deepen the understanding of the teaching practice as well as the researchers' learning about teaching:

Interaction between teacher and researcher encouraged the articulation and growth of knowledge on the part of the teacher, and the teacher's communication allowed the researcher to contribute to a wider knowledge base in teaching. (Jaworski, 2002, p. 43)

Jaworski adds, 'Teachers' engagement in inquiry and reflection at a pedagogical level is central to the development of a co-learning partnership' (p. 50).

It is important to recognise that the quality of relationship is central to achieving a collaborative culture of learning. Also, that a commitment to learning together fosters shared understanding through mutual dialogue, leading the participants to achieve ownership and confidence in knowledge creation.

Fullan (1999), Raymond *et al.* (1993), and Hargreaves (1992) have also suggested that collegiality aids shared understanding, shared responsibility in taking risks, shared goals through meetings and projects, or other means that are congruent with teachers' needs in attempting change in the classroom. For example, Fullan (1999) suggests that

[t]here is a great deal of team building, diverse group working together, and intense communication and information sharing (pp. 36-37)'.

To support the notion of collegiality, Rogoff (2001), in her study of collaborative partnership between parents and teachers, states that learning through collaboration requires respect for participants' ideas, views and opinions. The differences between participants' views are resources to others and enhance opportunities for learning. Conflicts and differences of opinion should be dealt with by conversation and problem-solving in trusting non-judgmental environments.

This literature suggests that teachers are neither immobilised nor passive but are self-conscious owners of their learning and have the capacity to reflect. A culture of collaboration,

interesting as part of the clarification of both the notions of foreground and background.

[2] Brentano's main work *Psychologie vom empirischen Standpunkte* is from 1874. An English translation is found in Brentano (1995). Searle (1983) analyses conceptual connections between action and intentionality.

[3] With reference to classic philosophic interpretations, meaning is assumed to be a referential property. The meaning of a concept is the set of objects or entities to which the concept refers. According to this interpretation, when we in mathematics education are able to expand the references of notions such as function, exponential function and metric space we provide extra meaning of such concepts.

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These notes and references follow on from page 15 of the article "Issues of perceiving equality in a co-learning partnership in Pakistani schools" that starts on the opposite page (ed.)

Notes

- [1] The textbook suggests "percentages are special fractions".
- [2] Zakat is one of the fundamentals of Islam according to which Muslims are obliged to share 2.5% of annual savings with the poor.

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