

CHANGING TEACHERS PEDAGOGICAL BELIEFS

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This study explored the implementation of “Investigations in Number, Data and Space” (1998)[*Investigations*], a K-5 mathematics curriculum, in three 5th grade classrooms. Several studies (Speer, 2002; van den Berg, 2002) have been done on the relationship between beliefs and instructional practice. In this study, teachers’ pedagogical beliefs is, “what a teacher considers to be ..., his or her own role in teaching, the students’ role, ..., legitimate mathematical procedures, ...” (Thompson, 1992, p. 135). Guiding questions to this study were: what are practicing elementary teachers’ pedagogical beliefs? What’s its influence on the implementation of *Investigations*? Data were collected by participant observation, informal conversations, questionnaires, and in-depth tape-recorded interviews. Modified analytic induction (Bogdan & Biklen, 1998) was used in data analysis. All the three teachers had a positive attitude towards *Investigations* but they practiced it traditionally based on their old pedagogical beliefs.

Teachers’ pedagogical beliefs are not unshakeable truths when perturbed. The study found that teachers’ pedagogical beliefs do change from traditional approaches, when their students and colleagues experience success with newer learning objectives and use of newer teaching methods. It also found that the classroom-based and school-based approach for conducting an in-service professional development program was effective. The successes and struggles these practicing teachers experienced for the first or second time they handled *Investigations*, are similar to prior research findings (Langrall, Swafford, & Scranton, 2002). This study supports other research that calls for supportive, effective, and continual professional development and becoming a reflective teacher. This study focused on only three teachers but the findings provide useful insights to School Districts that adopt *Investigations*.

References

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