

TAIWANESE INSERVICE MATHEMATICS TEACHER'S BELIEFS AND VALUES CAN CHANGE

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Alan Bishop has studied values in mathematics for more than two decades (Bishop, 1988). Recently, he says (2001, p.245) "... there had been so little research attention paid to values teaching, and none related to student teachers' values. ... the sooner we have more research focusing on values education in mathematics the better". In 1997, invited by Fou-Lai Lin, Alan's student, I joined their values research group as a director on junior high school level. In the previous case studies (Chang, 2000, 2001), it was found that the Taiwanese inservice junior high school mathematics teachers believe and value Platonism or absolutism in mathematics, score-ism in education, specialism in mathematics education. These beliefs and values the teachers held are incompatible with constructivism, and become the main obstacle for teacher to teach mathematics from a constructivist perspective. Hence, the research problem of the present study was how to change teacher's conventional beliefs and values in mathematics education.

The purpose of this article was to present how one teacher's beliefs and values in mathematics education changed over a period of two years. In this case study, a junior high school mathematics teacher, I-Fen, joined the program of in-service teacher education and the project of values teaching, and conducted a collaborative action research of value teaching with researcher in her mathematics classrooms. Data collection included classroom observations, interviews, questionnaires, and self-reports, teaching journals, teaching material or tasks designed by I-Fen. The findings showed that her teaching improved, and her beliefs and values in mathematics education changed.

References

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* This paper was supported by NSC grant NSC 90-2521-S-018-001, Values Teaching in Mathematics Classroom Project. The National Science Council or its staff does not necessarily share opinions and conclusions expressed here.