

CULTURALLY DIVERSE MATHEMATICS TEACHER CANDIDATES AS LEARNERS AND AS TEACHERS

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Culturally diverse pre-service teachers of mathematics are more vulnerable than other teacher candidates. They often have strong accent or can be described as visible minorities (in the Canadian school system). While Andrew, Cobb and Giampietro (2005) show that for “acceptable, good, very good, and outstanding teachers, there is no significant correlation between verbal scores and expert assessment of teacher effectiveness” (p. 343), such teacher candidates are often labelled by their associate teachers as low in verbal abilities and therefore less competent as teachers because “it is difficult for students to understand them.”

Coming from other cultural and educational backgrounds, such teacher candidates may experience difficulty in following curriculum instructions about emphasising communication in mathematics classroom. Furthermore, similar to Costa et al. findings (2005), mathematics textbooks or curriculum materials may be written in language not sensitive for users (students and teachers) whose first language is not English.

However, attracting teacher candidates from diverse backgrounds (in terms of social class, ethnicity and primary language as defined by Au, 1993) is recognized as important, since there are many students in Canadian schools with such backgrounds.

Participants in this study were three pre-service mathematics high school teachers enrolled in the program at the Faculty of Education of the medium size Canadian university. Data were partially collected through onsite observations during their practice teaching in schools and individual interviews. The researcher observed the participants’ body language, gestures, use of “teacher voice,” selection of mathematics exercises, artefacts used during teaching mathematics and communication with the students. Data sources pertaining to the study were analyzed using methods of discourse and content analysis in order to find common themes and trends pertaining to the research questions.

Preliminary data analysis showed that participants mostly found difficult to deal with issues of power and respect, which were different from what they experienced as teachers in their countries of origin. Also, they did not see much value in asking questions in class or organizing group work compared to drill and practice and assigning individual homework. This research will help shaping methods for working with mathematics teacher candidates from diverse cultural backgrounds.

References

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