

Chapter 1

Enhancing Inter–Cultural Mathematics Teaching Competencies: What Must Mathematics Teachers Do?

Judah Paul Makonye

University of the Witwatersrand, South Africa

ABSTRACT

In the global village we live today, inter-cultural competencies are imperative for mathematics teachers if their teaching is to cater for all learners in their classrooms. The author argues that intercultural competency is the key to helping such mathematics learners achieve their potential. Content analysis is done to find out what inter-cultural competencies are required of mathematics teachers to be able to handle diverse learners. Data was also collected through observation in a class that the author taught at an ITE to find out what occurs when the researcher puts in aspects of students' diversity in teaching mathematics. The findings show that inter-cultural competency is improved through teachers' self-introspection of their practices and presumptions about other cultures, including learners' diverse cultures in the curriculum, learning about non-verbal communication in different cultures, learning about the modes of learning in different cultures, studying the power of teachers in different cultures, handling conflicts in different cultures, and others.

DOI: 10.4018/978-1-5225-6158-3.ch001

INTRODUCTION

Imagine the story given in Figure 1.

One asks; Would not a similar scenario occur in a mathematics classroom with learners from diversified backgrounds? Figure 1 illustrates the constant dilemmas that teachers encounter daily as they teach learners from multi-cultural backgrounds; a single problem begetting different answers. Yet all answers are correct depending on the cultural basis of respondents. It highlights the need for developing cultural competence for all teachers including mathematics teachers who teach mathematics across the globe.

PURPOSE AND RESEARCH QUESTION

This book chapter interrogates and discusses pre-service teacher education strategies that enhance global mathematics teaching and learning through intercultural competence. How can teacher education promote intercultural awareness and intercultural competencies in preservice mathematics teachers?

Figure 1.

Suppose you are on a boat with your mother, your spouse and your child. Suddenly, the boat begins to sink. You determine that you can only save one of the other passengers. Whom do you save?

According to survey results, 60% of Americans save their spouse, 40% save their children. The reasons typically offered run along these lines:

- Save Spouse: "My spouse is my partner for life and I can have more children.";
- Save Child: "Children represent the future, so it is vital to protect them first. Probably, my spouse would support this decision."

However, among Asian cultures, or Americans of recent Asian descent, nearly 100% of respondents state that they would save the mother. The rationale I have heard offered is this:

Save Mother: "My mother gave me life; I owe her my life. I can marry again; I can have more children, but I cannot replace my mother or otherwise repay the debt I owe her." (Texin, 2002)

Story adapted from Martin and Vaughn (2007)

12 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/enhancing-inter-cultural-mathematics-teaching-competencies/208765

Related Content

A Pedagogical Review of Programming Education Research: What Have We Learned

Belle Selene Xia (2017). *International Journal of Online Pedagogy and Course Design* (pp. 33-42).

www.irma-international.org/article/a-pedagogical-review-of-programming-education-research/164972

LIS Education ASEANization: An Inchoate Plan?

Reysa Alenzuela and Ana Mae Bantad Cantel (2020). *Internationalization of Library and Information Science Education in the Asia-Pacific Region* (pp. 158-176).

www.irma-international.org/chapter/lis-education-aseanization/251997

Improving Distance Student Retention Through Satisfaction and Authentic Experiences

Madeleine Bornschlegland David Cashman (2018). *International Journal of Online Pedagogy and Course Design* (pp. 60-77).

www.irma-international.org/article/improving-distance-student-retention-through-satisfaction-and-authentic-experiences/204984

Using Asynchronous Activities to Promote Sense of Community and Learning in an Online Course

Jesús Trespalcios and Jennifer Rand (2015). *International Journal of Online Pedagogy and Course Design* (pp. 1-13).

www.irma-international.org/article/using-asynchronous-activities-to-promote-sense-of-community-and-learning-in-an-online-course/129963

Ideas and Implementation of an Internet-Based System of Qualification for Teachers in a Federally Structured Education System: Using the Example of Economic Education Online (Germany)

Michael Koch (2016). *International Journal of Online Pedagogy and Course Design* (pp. 46-64).

www.irma-international.org/article/ideas-and-implementation-of-an-internet-based-system-of-qualification-for-teachers-in-a-federally-structured-education-system/147745