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Obstacles to Integrate Ethnomathematics in Mathematics Classrooms

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This paper present partial results of the doctoral research "*The Training of Teachers who Teach Math using Ethnomathematics: Elements for Reflection*", its general objective is to identify elements for the design of teacher training programs since ethnomathematics. Specifically, this exposes the study of the veracity of two conjectures: teachers do not recognize mathematical extracurricular activities as math, and 2, this position obstructs the use of this knowledge in the classroom. A qualitative methodology for case studies was used. The case is a training course for teachers from ethnomathematics made in Tumaco, Colombia between July and October 2012. The empirical material was a group interview recorded in audio and were transcribed and analyzed with the theoretical model "MEDIPSA" which in its epistemological component includes the Wittgenstein's philosophy of mathematics. The findings, according to our conjectures, indicate that there is an obstacle between extracurricular math and school math because teachers doubt the mathematical value of extracurricular math. This conclusion gives us lights to outline the first element to consider in teacher training, which has to do with the epistemic openness to what is mathematics.

Journal of Mathematics & Culture

Special Edition

Proceedings of the 5th International Congress on Ethnomathematics – ICEm5

ISSN-1558-5336

Keywords: Mathematics Teacher Training; Ethnoeducation; Curriculum; Extracurricular Mathematics; Cultural Diversity.

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Bringing Ethnomathematics to Elementary Schools in Papua New Guinea

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After 40 years of ethnomathematics research in PNG and policies encouraging ethnomathematics in schools, it was time to look at professional learning for teachers so they could effectively implement the policies. We designed a set of interlinked principles, used them in workshops for Elementary School teachers (Pre-Elementary, Grades 1 and 2), and revised the principles to take account of needs. We developed a manual and a website to use in the workshops and afterwards. We are continuing this research through several phases of a design-based research. Early evaluation data suggest that this is a very worthwhile technology-enhanced professional learning based on an appropriate set of principles.

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