

PROFESSIONAL MATHEMATICS TEACHER IDENTITY: AN EXAMPLE WITH TELESECUNDARIA SYSTEM TEACHERS IN MEXICO

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The aim of this poster is to discuss about the constitution of professional identity, taking into account that the professional identity is shaped through the participation in a collaborative learning network. The participants are Mexican teachers that belong to the telesecundaria system, who work in rural or marginalized urban zones. The online work promotes a reflection about mathematics tasks that are in textbooks and the way that they have to apply in the contexts from her/his students.

INTRODUCTION

This study focuses on the analysis of the relationship between teachers' identity and teachers' practices. If the social environment is considered a contextual variable that has an impact on how a person acts, how does it come to affect identity formation?

The aim of our work is to identify the "professional mathematics teacher identity" of Mexican teacher of "Telesecundaria system" and create a collaborative learning network, which helps and also increases his professional identity.

The poster will include three sections: first the research problem, second the theoretical framework and finally the methodological advances.

CONCEPTUAL FRAMEWORK

Based on reviewing research into professional identity in relation to teachers and teacher education, Beijaard, Meijer & Verloop (2004) concluded that often lacks a clear definition of professional identity.

The notion of mathematics teacher identity is considered a social construct that describes not only a human group but also determines their actions. It means that the teachers' identity is not only the possession of a defined set of assets required for the profession. For instance, Gee (2001) says: "Being recognized as a certain kind of person, in a given contexts, is what I mean...by identity" (p.99). Identities are not stable but dynamic and situated, emerging in talk in different situations of everyday life. Ponte and Chapman (2008) suggest that this construct, professional mathematics teacher identity, may be seen as the teacher's "professional self" or an instance of a social identity. We consider that professional mathematics teacher identity emerges and changes in significant social experiences that define identity indicators. The analysis of the development of this construct allows also to recognize and explain the actions of teachers from their perspective.

METHODOLOGY

The participants in this investigation are teachers that work in an educational program in secondary level called “Telesecundaria”. This program offers coverage in urban or rural areas in the secondary level (25% of the population) and students receive instruction in all subjects from a single teacher. Instruction is delivered through three mechanisms: television broadcasts, teachers and texts. Sometimes the teachers do not identify themselves as mathematics teachers. Rather, they must master the disciplinary knowledge of all subjects that are included in the school curriculum.

We will use reflective narratives (Bjuland, Cestari & Borgersen, 2012) to identify the identity of the teachers from four areas: personal history, their initial training in their daily work and professional development spaces in which they have participated as well as from their participation in the collaborative learning network.

Telesecundaria’s teachers around Mexico as well as researchers and teacher educators will be those that constitute the collaborative network of teachers. The working methodology is to conduct a joint reflection on the design of learning tasks that are based on their textbooks for using in the classroom. This research encourages teachers to question the use of mathematics concepts, strategies and tools designed to affect the learning of their students.

FINAL DISCUSSION

The analyzed data suggest that there is not unique professional identity of telesecundaria’s teachers. The diversity of the initial training of teachers influences how they guide the students’ learning. Teachers should make adjustments to the curriculum according to the telesecundaria’s context and student difficulties. In our opinion, the study of professional mathematics teacher identity provides a different approach to the professional development of teachers. It implies an approximation of the teacher’s reality from their perspective, to explain from “there” their practices.

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