Investigating Latino Family Contexts for Mathematics Teaching and Learning

Course Overview
CEMELA Short Course

National Science Foundation Award No. ESI-0424983
In this course, we will

• Discuss parents’ perceptions about the teaching and learning of mathematics.
• Talk about families’ funds of knowledge and implications for mathematics education.
• Engage in joint data analysis on parents’ interviews.
• Have an opportunity to dialogue with a group of parents.
• Learn about parents as parents, as learners, as teachers, and as leaders.
About parental “involvement”

- Parental involvement programs need to be based on sound knowledge about the families we work with (Valdés, 1996).
- Are parental involvement programs based on “our” views of what parents should do? To which extent do they reflect the needs and experiences of the community?
- Our goal is a more authentic “involvement” of parents in the mathematics education of their children through a two-way dialogue.
- A key concept is that of parents as intellectual resources (Civil & Andrade, 2003).
A preview

- Parents’ perceptions about the teaching and learning of mathematics
  And related themes,
  - Valorization of knowledge
  - Language and mathematics
Latino parents’ perceptions about the teaching and learning of mathematics

- Parents are open about differences they notice between how they were taught and how their children are being taught, and between education in México and in the U.S.
- These differences encompass:
  - Level (“higher there than here”)
  - Approaches (“they are not required to memorize the multiplication facts here”)
  - Resources (“here they give them everything”)
  - Caring (teachers /schools more caring here than there)

(Let’s watch a clip that illustrates some of this)
Parents’ experiences as school children are likely to color how they see things with their children in school now.

They may value memorization and a direct approach to teaching because that is what they experienced and since in many cases they see their children struggling with basic skills, they figure that part of the problem is the approach.

These findings are very similar to those with other immigrant parents elsewhere (e.g., in U.K. (Abreu & Cline, 2005); in Germany; in Barcelona (Civil, Planas, & Quintos, 2005))
Valorization

- Teachers, preservice teachers, students, parents, administrators, researchers... we all have our views on what should be taught, how, what counts, what does not.

- Let’s see what immigrant mothers have to say about division in Mexico vs. the U.S.
Insert Video here
Implications (1)

- Are these differences “just” typical generational discourse?
- What happens when those implicated belong to groups whose knowledge has historically not been recognized or valued by schools?
- Are children and their parents caught in the middle?
Potential Conflict?

- [Mother]: Last night my son said to me that school from Mexico was not valued the same as school here, that is, it doesn’t count. What I studied there doesn’t count here …. He knows that what is taught here is different from what is taught there and so he says, ‘why would I ask my Mom for help if she’s not going to know.’ So, there is a barrier.

- [Teacher]: We are teaching division and multiplication, and the children are doing it the way we ask. This Wednesday when we did it, Eliseo said, “Oh no, my mama did it different.” And he went to the board and did it that way, and I said, “yes, but that’s in mama’s home. Let’s do it the way that we do it in the school.”
What should we be doing in our teacher preparation programs to address parents’ perceptions as well as issues of valorization of knowledge?
Language and Mathematics

- Language policy in the different local contexts.
- Current proposal for ELLs in AZ.
- Current context of immigration.
- Language demands of reform-based mathematics.
Language can be a barrier

Hay cosas que él dice “mami yo te voy a leer aquí, a ver dime tú”, y él me lo traduce en español; a veces que le entiendo lo que me está diciendo en inglés, hay veces que definitivamente no le entiendo nada, por eso yo estoy yendo a clases de inglés, entonces, hay cosas, que le digo yo, “m’hijo, no pues no le entiendo aquí”.

[There are things that he tells me, “mom, I’m going to read it here, let’s see, you tell me” and he translates it into Spanish; sometimes I understand what he’s telling me in English, other times, definitely I don’t understand anything, that’s why I’m going to English classes, so there are things that I tell him, “m’hijo, no I don’t understand it here.”]  
(Selena, Interview 1, Nov. 2005)
Emilia

- Recent immigrant; her children had been in school in the U.S. less than 1/2 a year at the time of this interview (with Alberto, her sixth grade son).
- They both mentioned that the mathematics he was currently studying, he had already seen it in Mexico.
- The only problem was the language.
Learning what they had already learned

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Implications (3)

• What are the consequences for parental participation of restrictive language policies in schooling? (at the same time, NCLB asks for increased parental involvement)

• What are the consequences of placement decisions based on language proficiency?
  ▪ As Valdés (2001) points out, “students should not be allowed to fall behind in subject–matter areas (e.g., mathematics, science) while they are learning English” (p. 153).

  ▪ We wonder about the (in)equity implications of some of these placements.
Tertulias 03-04: Language has nothing to do with it

- Insert Video here
Parents as Learners

• Although parents usually join these workshops to help their children, many of them soon become interested in their own learning.

• Their current learning experiences are mediated by their memories of when they went to school (e.g., memorizing, not knowing why vs. now exploring the why; anxiety about explaining to the whole group).
Parents’ preferred learning modes

- Learning mathematics with / in context.
- Learning in small groups.
- Learning in a safe environment (anxiety can be very high for some of the parents coming to these workshops).
- Being able to relate to what they learn.
Parental Involvement

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Parents as parents

• Parents interact with their children around mathematics in a variety of ways.
• Some “take over” and do it themselves; others teach them in a direct way; others teach them by guiding them; and yet others learn along with them.
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