

Parents and Teachers Exploring Together the Mathematics Learning of Emergent Bilingual Children

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Looking at quotes

- As you come in, look at the quotes posted around the room. These are quotes from parents or teachers.
- After you've read them all, stand by the one that most catches your interest (maybe because you agree / disagree with it, or because it intrigues you, or because...)

Discussion about the quotes

About “Let’s talk about math”

- We are working with two schools, one in Tucson, AZ and one in San José, CA.
- The main goal of the project is to design and study a model of parental engagement in mathematics that is based on a two-way dialogue between school and home.



Let’s talk about math: Parents and teachers talking and doing mathematics together – Project funded by the Heising-Simons Foundation

Two key theoretical concepts

- Funds of knowledge (González, Moll, & Amanti, 2005)
- Parents as intellectual resources (Civil & Andrade, 2003)

What we seek to do

- Learn with and from families' experiences with mathematics
- Link / Bridge home and school mathematics
- Promote parents as intellectual resources for their children's learning of mathematics
- Engage parents (and children) in the playfulness of mathematics
- Promote dialogue parents-teachers



Why?

Let's look at quote #2 again,

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 mom did it different." And he went to the board and did it that way, and I said, "yes, but that's in mom's home. Let's do it the way that we do it in the school."

Reaction from one mother

I identified with this quote because I did that with my child and it seems that I confused him and so the part on “let’s do it the way we do it in school”, we need to get involved and learn the way they teach it at school so that we can continue [support].

What we argue

- It should not be about having to learn the “school method” and rejecting the “home method”
- Children (and in particular children of immigrant backgrounds) should not be asked to have to choose
- It goes beyond generational differences, beyond the “I didn’t learn it this way”
- It has to do with whose knowledge is valued
- We need better communication between schools and families; an authentic two-way dialogue.

To prevent or minimize...

Quote 1

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.



How can we develop an authentic dialogue parents - teachers?

1. Leadership development sessions for parents and teachers to learn from each other and seek mathematical connections home-school.
2. Math for Parents sessions.
3. Mathematics Workshops for families, facilitated by teams of parents and teachers in the LT.
4. Parents' visits to mathematics classes.
5. Teachers household visits.

Getting to Know You Activity

- In a conversation format mothers and teachers talked in small groups as a means to get to know each other better.
- Questions included learning more about:
 - *Family background
 - *Experiences with mathematics
 - *Life experiences/Everyday activities
 - *Language

Teacher Reflections

- I have learned a lot of things about their [the mothers] personal life and upbringing that gives me a lot of information about how to better serve their family. Based on their experiences and knowledge, I am able to adjust material and skills for their children and make academics more relatable and enjoyable. I was also able to learn more about their thoughts and hopes for their children and see how they are connected to their lived experiences.

Teacher Reflections

- This was a refreshing and heartwarming interview. As a Latina teacher, it felt like I was having a discussion with members of my own family (aunts, my mother, etc.). It reminded me how important my job is, especially working with a community whom I can personally identify with. It's great to see how involved our parents are (specifically the maternal figures in our own student population) and how important it is for me to involve them in my endeavor as a teacher.

Parent Reflection

Talking to the teachers and learning about their experiences increases the connections and the desire to ask questions. It makes us [the mothers] feel more comfortable and open to questions and suggestions. It can help the teacher to understand where the student is coming from and help him/her connect more at school.

Parent Reflection

- I have learned that it's good to have communication with the teachers so that we are on the same page. Also, it's very nice to be able to share about your personal life because that way we can have more confidence to be able to converse with them [the teachers] and to be able to get closer to them. In that way, we can feel much better about any conversation.

In closing

- What is our view of parental involvement? How is that view different / similar from the parents?
- We need to develop authentic two-way dialogue school-home.
- We need to seriously examine our valorization of knowledge. Whose knowledge / methods do we value? Why?
- We need to focus on a resource based approach to teaching and learning → home knowledge as an ASSET

From a 3rd grade teacher→ seeing the resources in the students / families

Reacting to the earlier quote on doing it the school way:

I do have students who say my mom / dad taught me this way, and for me I do have to teach them certain ways but I encourage them if mom and dad want to teach them a different way, then my student has the strategy from school and the one from mom and dad and they can check and make sure that both answers match up, so they can check ...



THANK YOU!
Questions / comments

<http://patchmath.math.arizona.edu>