Investigating Latino Family Contexts for Mathematics Teaching and Learning:
CEMELA Short Course Module

Overview
This module addresses the role of the Latina/o parent and community in mathematics education. The Latina/o parent is at once an advocate for their child, an academic facilitator, and a mathematics learner themselves. This collection of literature, discussion topics, and activities will assist participants in gaining a comprehensive understanding of the perceptions of mathematics teaching and learning from a parent’s vantage point and with the interests of communities in consideration, as well as the implications for equity in mathematics education.

This module includes a reading list, session outlines, suggested activities, provocative questions to guide discussions, PowerPoint presentations, writing prompts, and excerpts from transcripts of parent interviews.

This module will take about six hours, or four 1 ½ hour sessions, to complete. The lesson outlines a general vision of how the sessions will unfold. Below is a list of the materials included for each session.

Keep in mind that it is not necessary for the sessions to be completed in the order depicted here. If, for example, Session 1 or 2 is a better day for the parents to take part in the panel, that is fine.

Intended Audience (Including but not limited to)
- Research community (mathematics education, education of Latinos, immigrant student education, transnational research, parental involvement research, etc..) interested in engaging in work with parents, with a focus on mathematics education.
- School administrators interested in expanding parental involvement/programs at schools (with a focus on schools with large Latino populations)
- Pre- or in-service teachers with an emphasis on understanding and connecting to parents of Latino students.

Objectives
- A more inclusive and mutually beneficial Qualitative research design related to work with parents and communities, particularly those that are most marginalized (Latino or other ethnic minorities/Immigrant/Low SES)
- Expanded notion of parental/community involvement in schools and in mathematics education research, particularly for Latino communities
- Enhanced mathematics education research and practice agenda that builds on and incorporates parent and community strengths
Prior to Start of Course:

- Each course participant is to conduct and transcribe an interview with a Latino parent, preferably one involved in a school/parent activity. Or, provide interview transcripts or audio recordings to be transcribed to participants from the work of the instructor. Small working groups for interview analysis can be pre-arranged. As much as possible, these groups should represent the diverse perspectives of the larger group (i.e. mathematician, mathematics educator, language researcher, etc…). Interview transcripts can exchanged and read prior to course of between days (within small groups).
- Prepare short video clips/transcripts of parents involved in parent/school program.

Session 1 – Overview and Importance:

- Lesson Plan
- PowerPoint Presentation 1
- Readings: Abreu and Cline; Allexsah-Snider; Civil, Planas & Quintos; Martin
- Activities:
  - Initial Brainstorm of traditional parental involvement and common perceptions of parents.
  - Small Groups Readings Discussions: What are the parents’ perspectives from the readings? Discuss how this contrasts with the traditional perspectives of parental involvement.
  - Synthesis of Discussions
- Hand-outs

Session 2 – Funds of Knowledge:

- Lesson Plan
- PowerPoint Presentation 2
- Readings: González, Andrade, Civil & Moll; Mercado; Rios
- Activities
  - Develop working definition of mathematical funds of knowledge in small groups.
  - Mercado article discussion- Identify F of K in the home visits described in this chapter. Small and large group discussion
  - Generate ideas for potential mathematical investigations involving students and their families.
- Hand-outs
- After Class: Read parent interviews of small group members and begin to identify themes

Session 3 – Parent Interviews:

- Lesson Plan
- Activities:
  - Small group review of interviews/themes. Generate list of major themes across or within interviews.
  - Large Group: share themes and generate questions for parents’ panel
- Hand-outs
Session 4 – Parent Panel:

- Lesson Plan
- Discussion Questions (prepared the day before)
- Activities:
  - Parent panel- Introductions, pre-planned questions for the panelists
  - Small group discussion with parents on questions generated in prior session.
  - Debrief: Take-aways from course, plans of action
- Hand-outs
- Parent Panel Suggested Overview and Structure:
  - Parents, mostly mothers, who had participated in the different parental involvement programs were invited to be part of a panel. The main goal was for the course participants to hear directly from parents. This panel breaks the common practice of talking about and talking to parents while never "talking with" them. The parents were invited to share their own experiences as mathematics learners, parents facilitating their children's success in school mathematics, and as leaders in their schools and school district. The process was intentionally informal.
  - The parents and panel coordinators met for lunch. During lunch we had an open dialogue about the themes previously mentioned. The parents built on each other's comments. After that, we asked them to think of one or two aspects discussed they would like to share in the panel. We took notes and handed them out on the day of the panel. In the panel each mother (fathers didn't attend) shared their experiences. The panel talked in Spanish and we had simultaneous translation in English for those who needed it. After this more formal presentation, each one of them sat at a table to talk with a group of course participants.

Additional Materials:

- Posters of selected quotations from readings [Instructor can create as appropriate]
- Bibliography of course readings [see below]
- Additional Readings/Resources [see below]
- Materials for parent workshops from MAPPS (in Spanish and English)
- Interview Protocols (2) and Parent Profile (in Spanish and English)- One or both interview protocols can be used
Bibliography of Course Readings

Day 1 Readings:

Day 2 Readings:

Additional Readings:

Various articles on related topics:
http://math.arizona.edu/~cemela/english/research/cemela_pubs.php