Mathematics Identities

- Mathematics identity includes:
    1. beliefs about one's self as a mathematics learner;
    2. one's perceptions of how others perceive him as a mathematics learner,
    3. beliefs about the nature of mathematics,
    4. engagement in mathematics, and
    5. perception of self as a potential participant in mathematics (Solomon, 2009).

Identities and Motivation

- Understanding the strengths and motivations that serve to develop students' identities should be embedded in the daily work of all teachers.
- Mathematics teaching involves not only helping students develop mathematical skills but also empowering students to seeing themselves as capable of participating in and being doers of mathematics.
    - When students identify themselves as participatory and doers of mathematics, they make positive connections and are motivate to achieve at high levels.
    - This understanding of students' identities gives teachers insights to how and why some students might make positive connections with mathematics and others do not.
- Teachers can use this understanding to provide opportunities for students to use mathematics to examine personal, communal, and social contexts.
    - In providing these opportunities, students may find the motivation and connections with mathematics to see the relevance for their future thus developing a mathematics identity.

Identity Affirming Behaviors

- Identity-affirming behaviors influence the ways in which students participate in mathematics and how they see themselves as doers of mathematics.
    - A student who identifies himself as being good at mathematics might exhibit behaviors and participate to maintain his status as a person who is "smart" or good at mathematics.
- In mathematics teaching and learning we see identity-affirming criteria emerging as learners are labeled as "smart," "gifted," "proficient," "at-risk," or "on grade-level"
- Teachers affirm mathematics identities by providing opportunities for students to make sense of and persevere in challenging mathematics.
    - Students should be engaged with mathematics that requires active participation, asking questions, problem posing, and reasoning.
    - This kind of teaching values all students' thinking and uses pedagogical practices, such as differentiated tasks, mixed ability groupings, and publicly praising contributions and perseverance, to cultivate and affirm mathematical participation and behaviors (NCTM 2014).
    - Policies and Practices impacting Access and Equity. What kinds of work/practices/strategies impact the differentials for Access and Equity?

Identities: Supporting Mathematics Teaching and Learning

- Mathematics teaching should leverage students' culture, contexts, and identities to support and enhance mathematics learning (NCTM, 2014).
- By understanding the significance and relevance of the alternative identities and contexts, mathematics teachers can draw on community resources to understand how they can use contexts, culture, conditions, and language to support mathematics teaching and learning.