The FAST (Future Academic Scholars in Teaching) Fellowship Program is for STEM doctoral students with interests in teaching, learning, and assessment in higher education. This high engagement program was developed in 2006 in response to the national call for preparing future faculty to meet the changing needs and expectations in STEM education.

**Program Development & Activities**
- Academic-year long program.
- 10-12 Fellows selected/yr.
- Administered by MSU CIRTL Steering Committee.
- Conduct and present a mentored Teaching-as-Research (TAR) project.
- Fellows provided $2,000 for TAR projects.
- Attend workshops and meetings.
- Peer evaluation and collaboration on projects.
- Use of human subjects and research ethics (IRB).
- Discuss topics associated with pedagogy, teaching and learning, and preparing for academic positions.

**Program Topics/Components**
- Instructional design elements and resources:
  - Assessment of Teaching and Learning
  - Bloom’s Taxonomy
- Assessment
  - Types of assessment
  - Use of technology for assessing student learning
- Data collection, analysis and management for assessment.
- Professional development:
  - Developing a teaching philosophy.
  - Developing a teaching portfolio.
- Learning through diversity.

**Participants (2006-07 to 2010-11)**
Department Participation for 44 Fellows
(17 males, 27 females from 5 colleges)

**Self-Reported Skill Gains**
- Practical Teaching Skills
  - Assessment, instructional methods.
  - Knowledge of diversity to teach effectively
- New pedagogical concepts:
  - Bloom’s taxonomy, Backward Design, TAR, multiple assessment techniques.
- Professional development for faculty positions
  - Expectations for tenure/promotion.
  - Interviewing.

**Evaluation**
- Pre- and post-surveys to analyze program impact at three levels: cognitive, expectations and behavior.
- Semi-structured interviews >(3-6 mths post-program). To complement the data collection with more detailed and rich information.

**Comments from Fellows**
- "Peer mentoring was great. I enjoyed getting the feedback especially working with science people. It pushed me to think about why this is useful outside of math."
- "I just didn’t know anything about teaching as research so the project really forced me to get into the lit and expand my horizons. I found a lot of resources."
- "The SC emphasized to us that teaching as research wasn’t any different from research in anything else. That’s definitely ingrained in my mind. I look at my teaching with the same eyes in terms of quality."

**Reported Program Satisfaction**
- n=24; 92% Were “Satisfied” or “Extremely Satisfied” with FAST

**Where are the Fellows?**
- e.g., Univ. of Mich.-Ann Arbor, Lansing Community College, Hillsdale College, Univ. of Toronto, NC State Univ., Univ. of Mich.-Flint, MSU, Central Mich. Univ.

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