

Multicultural Assessment Plan for Advanced Mathematics Research in the Mathematics Department

Multicultural Understanding:

Math is a body of socially constructed knowledge and techniques developed to satisfy human needs and interests.

Multicultural Learning:

Students will learn that what we choose to research and how data are analyzed reflects cultural values, mirrors life experiences, and may create ethical dilemmas.

Reconstructed Learning:

The research process is influenced by the larger culture, traditions, and biases within a discipline, and individual life experiences. These may contain bias or prejudice with respect to what is important to study, what methods of analysis are valid, and which conclusions are warranted. Data often are falsely viewed as having an objective, neutral existence. Difficult choices sometimes are present as to what is morally right, or acceptable within the framework of an organization or profession. Students should be helped to recognize these issues in their own work and in the work of others, and to examine other possible choices, methods and conclusions. They should learn to defend their own choices and challenge the choices of others where appropriate.

Goals/Objectives of the Multicultural Work:

- Students will see others as whole individuals with full lives, not just as a stereotype based on a single characteristic.
- Students will see clients as collaborators and individuals from whom they can learn.
- Students will begin to explore the ideas of profiling and working with both objective/quantitative and subjective/qualitative data.

Performance Task Part 1:

- During the summer part of the course, students will visit the Sun Foods – Maxsun International Market – Arc’s Value Village complex in Brooklyn Center (or similar place) and participate in the following activity:

While you are at Maxsun International Market

Go in pairs and look at the different types of small businesses. Pick a business that seems interesting to you and take a few minutes to talk to the proprietor. Introduce yourselves and where you’re from. Tell them that you’re learning about small community businesses and you’d like to learn more from someone who is actually doing it.

Possible conversation topics

- Why did you decide to start your business?
- What did you have to do to start?
- How does your business serve your community?
- Is it hard to run your own business?
- How did you get the money to start your business?
- Do you have another job besides this?
- What are your hopes for your business?
- What restrictions do you have on your business?
- What do you find rewarding?
- What do you find challenging?
- What's the hardest thing about running a business?
- If there were one thing that would make it easier, what would it be?

While you are at Sun Foods and Value Village...

You are an observer. Again, break into pairs. Get a basket or cart and shop. You are more than welcome to buy things.

- What does this store sell? What are the prices in this store? How is this similar to or different from places you normally shop? What is the atmosphere/vibe in this store? Who works here?
- Who is shopping? What are they buying (specifically, not just “food” or “clothes”)? Who is with them? Where do they appear to be from?
- How do you feel shopping in this store?
- Why does this store exist? What need does it serve in the community? What can you tell about the community from shopping here? What surprised you?

Reflection and Self-Assessment:

- Over lunch at Midtown Global Market, students discuss their observations and findings. After the initial discussion, students are prompted with the following sample questions:
 - You were essentially a tourist in someone else's life.
 - How did you act? Did you do what you were asked, or did something else happen?
 - How did you feel? What did you think about? What questions did you have?
 - Would this have been different if you were alone, not with people you knew?
 - How did they feel about you being there? How were you treated when you first walked in? How were you treated after you started a conversation?
 - Why did we go to Sun Foods – Maxsun International Market – Arc's Value Village for this observation instead of Midtown Global Market?
 - What's the difference between selling one's culture and selling to one's culture?

Performance Task Part 2:

- Students will work together to create a survey of things to observe at a local Wal-Mart including prices, shopper demographics, store condition, items purchased, etc.
- Students will each be assigned a Wal-Mart to visit in a different part of the metro area to collect observations.
- Students will share their information with each other via Google Docs.
- Students will analyze the information as a whole to get a general picture of a Wal-Mart shopper as well as look for areas where their particular store varied from the whole in a meaningful way. Different analytical measures will be introduced to facilitate this process.
- Students will create a profile of a typical shopper at their Wal-Mart and compare it to available information on that Wal-Mart's community.

Assessment Criteria for Performance Task

- The student identified what they intended to learn.
- The student competently analyzed the collected data.
- The student justified their choice of decision-making criteria for both quantitative and qualitative data.
- The student acknowledged potential biases, confounding factors and flaws in technique.
- The student suggested improvements in experimental design.
- The student was open to unexpected results and new questions based on their observations.

Connection to Facets of Understanding:

- **Explanation:** Determining questions to ask and collecting data.
- **Interpretation:** Making substantiated connections between social observation and mathematical analysis.
- **Application:** Observing, gathering and analyzing data.
- **Perspective:** Relying on conversations, observations and analysis rather than stereotypes.
- **Empathy:** Recognizing others as individuals first.
- **Self-knowledge:** Challenging personal biases as they begin collaborating with a client.

Formative Assessment:

- Student-generated profile of a Wal-Mart shopper.

Reflection and Self-Assessment:

Reflect on the following idea: *Move from Charity to Solidarity*.

- Did the people you were around identify themselves with one particular characteristic only? Did the people you were around view themselves as inferior to you or less privileged than you? Did the people you were around view you as owing them something? Did the people around you view their lives as bad? How did they view themselves? What does it mean to be a CWW?
- What vocabulary conveys charity? What vocabulary conveys solidarity? What vocabulary conveys a stratified relationship? What vocabulary conveys a collaborative one?