TeachME Professional Development

Using Math to Explore Social Issues

Introduction

1. Although a mathematically literate populace is deemed essential for enhancing economic competitiveness, less emphasis is placed on the importance of mathematics literacy for informed and active democratic citizenship in technologically advanced countries such as the U.S.

A. True
B. False

Mathematics: A Tool for Social Critique

2. Mathematics and other disciplines are seen as powerful tools for social critique, revealing the contradictions between:

A. Social problems and solutions
B. Social action and inaction
C. Social ideals and realities
D. Social consciousness and disregard

Mathematics: A Subject for Social Critique

3. Critical mathematics education scholars contend that mathematics is neutral, purposeful, and is objective in its application.

A. True
B. False

Reflection on Mathematics

4. Critically oriented reflections on mathematics focus on viewing it in a larger context, asking each of the following questions EXCEPT:

A. Whom does it benefit?

B. Whom does it harm?
C. Is it dehumanizing?
D. What is its connection to ideology?

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5. Students report finding mathematical inquiries about social issues compelling because mathematics is an objective tool, mathematics provides a compelling justification for individual and societal beliefs and actions, and mathematics furnishes evidence that:

A. Helps us draw reasonable conclusions
B. Supports or challenges assertions
C. Enables us to organize and express our thoughts
D. Helps develop moral and cultural character

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6. Students' descriptions of mathematics detailed their awareness that mathematics is a democratic tool in our society in that it is not likely to be used as a means of persuasion in the way that science, history, and literature are.

A. True
B. False

Mathematics: An Insufficient Tool for Social Inquiry

7. Mathematics is an inherently limited tool for social inquiry, according to students, because it is reductive and impersonal, it provides inadequate explanations for problems, it is irrelevant for moral arguments, and it is inaccessible to the general public.

A. True
B. False

A Critical Perspective on Students' Views of Mathematics

8. Which of the following is NOT one of the ways students challenged the dominant view of mathematics in our society?

A. Students challenged the belief that mathematics provides definitive answers to questions about the world
B. They noted that the certainty of conclusions of mathematical inquiries is frequently constrained by limits of confidence
C. They viewed their mathematical inquiries as an important beginning rather than an end to inquiry about the fairness of societal practices
D. They expressed reservations about the ability to transfer technical math applications

to societal issues

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