

Elementary Education: Mathematics Methods for Pre-service teachers

Global awareness through mathematics

BEATRIZ QUINTOS

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Defining Mathematical Literacy:



An individual's capacity to identify and understand the role that mathematics plays in the world. Further literacy involves making well-founded judgments and using and engaging with mathematics in ways that meet the needs of each individual's life as a constructive, concerned and reflective citizen"

(OECD, 2004, p. 4).

Mission of the Course:

Our mission is to realize the capacity of mathematics in assuring the healthy and whole development of all children so they have the intellect and resiliency to (a) understand a rapidly changing world and, (b) to sustain or change their place in it.

(Dr. Lisa Boté, Dept. of Curriculum and Instruction)

Global & cultural understanding

How can students connect or make sense of these issues?

Habitat Loss
Endangered Species
Hunger
Access to Resources
Race Relations
Immigration

2) Cultural aspects of learning mathematics

- Measurement units
- Discourse: *academic vs. conversational linguistic skills*

Field Exp: Creating a Math Trail

"Not only can the math trail give students a new view of mathematics and of their community, it can give a teacher a new view of his /her students' understanding."

1) Global Issues Through Mathematics

A commitment to assisting students to become responsible citizens both of the world and of their own communities

ENDANGERED SPECIES

- *How many children does it take to equal the weight of an average manatee?*
- *How long can a manatee hold its breath?*



Hypothermia: This activity will help students to understand the relationships of surface area, volume, and loss of body heat. This same investigation/demonstration can be used to illustrate how body shape also effects the absorption of heat. This is especially important to reptiles in desert environments.