

MATH 414 READING ASSIGNMENT 1

Mar 23, 2011

Answer the following questions. Your answer to each question should be at least a paragraph and no more than about two pages. In particular, one-sentence answers are not sufficient. In grading your answers, I am primarily interested in seeing that you have carefully read the handout by Dr. Ma and you have spent some time thinking about how it relates to your understanding of your career as a teacher.

This assignment counts for 5% of your grade in this class. It is due in class on 4/18.

1. You have read Dr. Ma's comparison of Chinese and U.S. elementary school teachers. She contends that the two groups of teachers differ in their content knowledge of math. What substantial differences did Dr. Ma find between the two groups? What kinds of differences did she find in pedagogical knowledge?
2. Discuss how the differences in their math content knowledge and pedagogical knowledge set the two groups of teachers apart in terms of their effectiveness as elementary school educators. To what extent are these two skills (math content knowledge and pedagogical knowledge) relevant to elementary education?
3. Dr. Ma's book is concerned with differences between Chinese and U.S. elementary teachers. She does not investigate how the differences between these two groups of teachers affect their students. Based on her description of the teachers, what differences would you expect to see in their students' mathematical problem solving skills? Would you expect Chinese students to be more successful at solving certain kinds of problems? What kinds of problems? Would you expect American students to be more successful at solving certain kinds of problems? What kinds of problems?
4. You learned from your reading about the differences in the training of Chinese and U.S. elementary teachers. In particular, U.S. elementary teachers are college-educated whereas Chinese elementary teachers do not. Discuss how this difference in training may account for (or may be reconciled with) the differences in those teachers' skills and attitudes. What other factors do you think are important?