

**Mathematics Education**

EMAT 7050 FINAL EXAMINATION

Comment: It is a time to synthesize what you have drawn from participation in this course and that is a primary direction for this examination. Each of you has pursued an agenda of adding to your knowledge base with your own selection of literature that you have shared. Yet collectively we have examined many issues and almost 140 articles. There are two formats for the Annotated Bibliography -- the week-by-week accumulation at

<http://jwilson.coe.uga.edu/EMAT7050/EMAT7050ANNO.BIB.html>

and the same items in an alphabetical single list at

<http://jwilson.coe.uga.edu/EMAT7050/EMAT7050ANNO.BIB.2.html>

**Instructions**: Select a topic of interest to you from our discussion and develop a proposal for study you would like to do or would like to have done. The study may be for an action research proposal. The elements of a good proposal include the following.

1. A brief introduction and title

2. A concise statement of the problem of inquiry early in the document. The reader should not have to read to the end of the paper to search for the topic of conversation.

3. A rationale that includes at least some basis for the study -- conceptualization, a theoretical position, a framework, or some consistent reasoning. The rationale should provide some basis in school mathematics experience, which should at least include a brief review of some of the relevant literature.

4. Evidence that the study is something that can be done.

5. Address the question of why or whether the study is worth doing. What do we get out of it?

6. It should have not more that 15 pages, double spaced, 12 pt type, including references cited. In other words, be brief, concise, and on task.

There are a couple of themes that may not have been always front and center for us that I would like to see considered. One of these is the degree of mathematics understanding for teaching required of the teacher. Several times I have observed that the articles imply a deeper understanding of mathematics to implement some of our current goals. Certainly, the implementation of the CCSSM curriculum standards AND the Standards of Practice demand deeper understanding of mathematics on the part of teachers.

Another is just the question of why would we do a study. Hasn’t someone already given us the answers we want? In general, of course, we do not need to do a study to confirm what we already know yet, paradoxically, there is a real need for replication and reproducibility of studies. A balance of reasoning is needed. A study that sets out to find “Which way is better?” is usually not very useful. Rather, useful studies are set to explore a range of evidence that is relevant to understanding the problem we are studying.