Expert Feedback on the Mathematics TEKS Review Committee Drafts Dr. Robert Capraro September 2011

Overall comments.

The committee has done an exemplary job and I commend you for the hard work and effort in helping to create a strong curriculum and more rigorous standards.

Some concerns.

In the elementary grades. (see comments in text for specifics)

It is important to consider the issues related to the equal sign. The issue is compounded in the middle grades in distinguishing between equations and expressions. Students often only consider the equal sign as a command to compute instead of a relational symbol. Therefore, research says students should experience problems in many forms including: 1+3+4=2+____, 4=4 reflexive, as well as with the missing number in various positions of A+B=C and of course with various operators.

Further it is essential to remove jargon from the expectations (e.g., subitizing). Removing the jargon and writing exactly what is meant is more beneficial.

Finally, Teaching Children Mathematics and others of that kind are not research journals and should not be interpreted as if they are. The activities may be excellent examples but the article itself is not satisfactory in determining the implications fro using any one activity and therefore, should not be considered when thinking about the expectations.

I have included several research articles specifically about the equal sign and they might be helpful at both the elementary and middle grades levels.

In the middle grades. (See specific comments in text)

The use of the term mathematical such as "Represent constant rates in mathematical and real –world problems . . . "

What is meant by the term mathematical? Isn't the real-world problems still mathematical? Do you mean algorithmically? Such as "Represent constant rates in algorithms and real-world problems..." or do you mean "Represent constant rates in equations and real-world problems..."

Secondary

My comments stand from the first secondary analysis. I still am having a great deal of difficulty with including statistics without building a sufficient foundation. Certainly one cannot expect that statistics could be so different from any other mathematics that students will retain the bit they learned from last year and be able to recall it next year to use as foundational. There are blatant missing components such as the development of sampling and population ideas, confidence level, and random assignments versus random selection and the difference in what each one allows to be said about the findings.