**IRB Synopsis of Proposal**

Title: Problem Based Learning and College and Career Readiness Standards, Connecting Reasoning to Mathematical Content

1. Participants will be practicing high school math teachers attending Problem Based Learning and College and Career Readiness Standards, Connecting Reasoning to Mathematical Content Seminar.

2. The consent form will be explained to them at the beginning of the seminar. They are not required to sign it to participate in the Problem Based Learning and College and Career Readiness Standards, Connecting Reasoning to Mathematical Content Seminar.

3. Research is both qualitative and quantitative. Test of Everyday Reasoning (reasoning skills) produced by Insight Testing, methods with be administered to pre-service teachers. Understanding of Texas CCR tested using an instrument designed and tested by researcher is another tool to be used. Same test will be given as pre and post tests. Also student lesson plan will be evaluated based on their use of the Texas CCR standards. A Likert attitude survey, made and tested by researcher will be used to determine changes in attitudes. Sources for goal motivation and academic affect (Patterns of Adaptive Learning Survey (PALS) by Midgley and Ryan) will be adapted in designing instrument. All data will be collected using no forms of identification and kept in a secure location.

4. and 5. Some risk, discomfort, and inconveniences may arise from the testing situation. More time will be allowed if discomfort arises and the testing environment will be changed to provide more privacy. Participant’s efforts will benefit teachers while hopeful improving their own knowledge CCRS content and teaching practices.

6. Teachers will become aware of state mandated College and Career Readiness Standards and how they will affect how and what they teach. They will also benefit by using them to prepare lessons. This will help them to be better teachers.

7. No compensation will be planned.

8. No risks in relationship to the anticipated benefits to the subjects and society.

13. Beth Bos and Texas Higher Education Coordinating Board will have access to the results of the study

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