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EDRS 824 Module 3 Assignment  
Design Map & Memo

**Purposes**  
To design and implement a successful model for teaching technology integration to preservice Social Studies teachers  
To influence attitudes, beliefs, & application of instructional technology in lesson design  
To prepare preservice teachers to successfully integrate technology regardless of the content area they teach

**Conceptual Framework**  
TPACK (Technological Pedagogical Content Knowledge) Model by Mishra & Koehler  
Preservice Teacher’s perception of instructional technology based on experience and extensive research

**Historical Thinking Framework**

**Evolving Research Questions**  
How has the course influenced students’ perceived attitudes, beliefs, and use of technology to support Social Studies Habits of Mind?  
What changes occurred in students’ perceived attitudes, beliefs, and use of technology?  
How are students’ attitudes, beliefs, and use reflected in lesson designs?  
How do students connect instructional technology and Social Studies habits of mind in lesson design?

**Methods**  
Researcher teaches course to develop an in-depth understanding of assignments  
Pre-Post Self-Survey of Attitudes & Beliefs  
Pre-Post Interview investigating TPACK  
Analysis of discussion board posts & assignments to quantify use of technology and habits of mind  
Case study analysis and cross-case analysis of all course participants

**Validity**  
Researcher Bias due to proximity to course  
Course Teacher conducting Interviews  
External Influences to TPACK  

**Potential Checks**  
Member check of qualitative analysis  
Post Interviews occur after Grades are submitted  
Cross source analysis to determine if changes are a result of course
The research study introduces an online method for instructing preservice and novice Social Studies teachers on how to integrate technology into lesson design in order to support habits-of-mind-based instruction within their discipline. The purpose of this study is to determine if the course design influences the student’s attitudes, beliefs, and expectations about instructional technology. This goal of the study is driven by the current research on the TPACK (Technological Pedagogical Content Knowledge) Framework by Mishra and Koehler as well as the extensive literature on the lack of technology integration into methods courses. The TPACK Framework argues that the heart of dynamic classroom instruction lies in a complex intersection between technological knowledge, pedagogical knowledge, and content knowledge.

The course design seeks to influence students’ understanding of this complex intersection through exposure to instructional technology that supports the use of historical thinking that can be applied to any content area within Social Studies. Historical Thinking (Weinberg, 2001) is a method of Social Studies instruction that focuses on essential skills utilized by historians (chronology, source interpretation, etc.) that can be supported by technology (Risinger, 2008) and used to support Social Studies instruction across the content areas (Russell & Pellegrino, 2008; Pellegrino et. al., 2012; VanSledright, 2004), making Historical Thinking a pedagogical framework that can support preservice educators.

In order to determine the impact the course has on the preservice teachers, I want to triangulate three important research sources that examine the students in-depth. First, I want to conduct a pre-post self-survey that asks students to explore their attitudes and beliefs towards the use of technology, both for personal use as well as academic use. There are a number of research studies that indicate a correlation between a teacher’s attitudes and beliefs towards technology
and how they integrate technology in the classroom, ranging from administrative use of technology to student-centered technology that affords complex application of course material.

A second measurement that I feel is important will come from pre-post interviews conducted with the students, aimed at assessing the TPACK Framework in relation to Social Studies education and confirming or refuting the results of their self-survey. My design decision here is to reduce the possibility of false reporting and increase the validity of the results of these two measures. I am concerned about the validity of these results however, due to my proximity to the course as the instructor. I believe that by conducting the interviews before the course begins and after grades are distributed, I will be able to limit the amount of influence my presence will have over the interviews. Additionally, I will use member checks during the coding to ensure that I am not exerting my perceived understanding of the student into the results.

Finally, I want to analyze the products and discussions students engage in to measure how their attitudes and beliefs are shifting as well as how their espoused ideas on instructional technology and pedagogy translate into practical lesson design. I remain concerned about external influences provided by other courses on student progress, but I hope that by triangulating my data between three separate sets of data, I can develop a more accurate description of the process occurring throughout the course.

This design map activity has helped and challenged my research design in a number of ways. It has greatly benefited me in helping to enumerate and develop a concrete idea of how I want to collect my data and what validity threats I could encounter throughout the entire process.
Additionally, it keeps me focused on the purpose of the research design, to determine how preservice teachers are influenced by the course as an intervention.

At the same time, I continue to struggle and wrestle with my design due to my proximity to the development of the intervention. When writing my research questions, I had to continuously reflect on the purpose of the study as well as the conceptual framework to help frame my research questions around the impact the intervention is having on the group being studied, the students of the course, rather than analyzing the course itself. What helped me most was developing a practical goal, preparing preservice teachers to integrate technology using Historical Thinking, that helps to remind me that the objective of my study is to determine how attitudes and beliefs are being changed and how that is reflected in the work the students produce. Despite this focus, I still am not convinced that my research questions adequately address the purpose of the course, so I continue to struggle writing and improving these questions. I believe that the Case Study and Cross-Case Analysis approach will help me to formulate more concrete research questions examining the impact this course has on attitudes, beliefs, and actual usage of instructional technology by preservice Social Studies teachers.