**Capstone Log – EDRS 8000 & EDRS 8900**

**Instructional Technology Department**

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| **Candidate: Christa Evans Heath** | **Mentor/Title: Ellen Reagin/Media Specialist** | **School/District: Holcomb Bridge Middle/Fulton School** |
| **Research Project Title:** The Impact of Technology Use on Student Engagement and Achievement in a Social Studies Inspired Classroom: A Comparison Study of Laptops and Apple iDevices. |

 **You are not required to reflect after each entry. Reflections can address one or more entries in the log.
Just delete the reflection row if you do not use it.**

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| **Date** | **Activity/Amount of Time(Please total the time after the last entry.)** | **PSC/ISTE Standards** |
| 8/19-26 | Completed Intro to Educational Research Lessons, Determined Focus ( 5hours)  | PSC 1.1, 2.2, 2.6, 2.8, 6.1/ISTE 1a, 2b, 2f, 2h, 6a |
| 8/26-9/10 | Performed Literature Review and Created Literature Matrix( 23.8hours) | PSC 1.2, 1.3, 1.4, 2.2, 2.3, 2.4, 2.5, 2.6, 2.8, 3.6, 4.3, 5.3/ISTE 1b, 1c, 1d, 2b, 2c, 2d, 2e, 2f, 2h, 3f, 4c, 5c |
| 9/10/9-15 | Compose literature review outline and draft (6 hours) | PSC 1.2, 1.3, 1.4, 2.2, 2.3, 2.4, 2.5, 2.6, 2.8, 3.6, 4.3, 5.3/ISTE 1b, 1c, 1d, 2b, 2c, 2d, 2e, 2f, 2h, 3f, 4c, 5c |
| Reflection:Exploring current technology-based research in the field of use of technology and the impact on student engagement and achievement was a very interesting process. I knew that the use of technology had an impact but I wondered if specific tools had greater impact than others. I found there was research on specific devices but not on one device over the other. The common theme was affordability and ratio of student and device use. |
|  | Research possible methodology, design for project (3 hours) | PSC 6.1/ISTE 6a, 6b |
|  | Continue developing methodology and tools for measurement (3 hours) |  |
|  | Draft introduction, methodology for research proposal (4 hours) |  |
|  | Draft introduction and methodology(5 hours) |  |
| Reflection:After determining what I wanted to explore in my research, I needed to determine how I would measure my target skills. Measuring academic progress was easier to design, and I created a pre- and post-assessment to gauge academic achievement after completing both lessons. I also work in creating a framework for the two lessons the students were going to complete. Measuring engagement was more difficult, and I designed student engagement surveys using Likert scale to gauge their engagement/attitude before and after completing the lesson on two different devices. Additional I created a survey to evaluate their use and attitude in technology in general to use at the beginning of the study. Originally plan included interviews of participants, but time constraints ultimately made this unmanageable. I was able to obtain some information in the form of open-ended survey questions. |
| 11/8-9 | Complete CITI training 4 hours | 1.3, 2.7, 2.8, 4.2/1c, 2g, 2h, 5b |
| 11/11-13 | Compose final research proposal, including interview protocol and permission forms (6 hours) | PSC 6.1/ISTE 6a, 6b |
| 11/19 | Continue revising proposal, finalize (3 hours | PSC 6.1/ISTE 6a, 6b |
| 12/7-12/8 | Complete IRB review application (3 hours) | PSC 4.2/ISTE 5b |
| 12/13 | Meet with principal for school and system approval (1 hour) | PSC 3.6/ISTE 3f |
| Reflection:This process taught me the amount of regulations involved in conducting research in schools! It was daunting to go through the IRB review process, developing all necessary permissions and forms for students, parents, and teachers. For my school district, my principal was able to review my proposal and approve it at the school level, but it was necessary to make some changes and clarify some aspects of my proposal before she felt comfortable approving the project. There was some confusion within the school and district of the level of approval I needed. I additional had to make several revisions for the IRB process due to misunderstanding of the project.  |
| 1/10 | Revise and resubmit IRB application (2hours) | PSC 4.2/ISTE 5b |
| 1/20 | Meet with classes to explain process to students (4 hours) | PSC 2.1/ISTE 2a PSC 2.3/ISTE 2c |
| 2/3-2-14 | Conduct pre surveys and assessments, guide students through completing two lessons one using laptops and one using idevices, Administer post assessment, activity evaluation and questionnaires. (3 hours a day for 10 days 30 total hours) | PSC 2.2/ISTE 2b PSC 2.3/ISTE 2c PSC 2.4/ISTE 2d PSC 2.6/ISTE 2f PSC 2.7/ISTE 2g PSC 3.1/ISTE 3a PSC 3.2/ISTE 3b PSC 3.3/ISTE 3c PSC 3.5/ISTE 3e PSC 4.1/ISTE 5a PSC 6. |
| 2/17-18 | Administer post survey on engagement, compile data from pre-and post –survey for comparison (3 hours) | PSC 2.2/ISTE 2b PSC 2.3/ISTE 2c PSC 2.4/ISTE 2d PSC 2.6/ISTE 2f PSC 2.7/ISTE 2g PSC 3.1/ISTE 3a PSC 3.2/ISTE 3b PSC 3.3/ISTE 3c PSC 3.5/ISTE 3e PSC 4.1/ISTE 5a PSC 6. |
| Reflection:I very much enjoyed the research process and working with the students as they use technology to complete their assignment. Students were excited to use various forms of technology in their learning. Hearing their feedback on their different style and how technology can improve their engagement and attitude in learning was refreshing. |
| 3/31-4/4 | Complete data analysis comparing pre and post assessment and evaluation surveys 6 hrs | PSC 2.8/ISTE 2h |
| 4-5-7 | Draft analysis section of research paper (6hours) | PSC 6.2/ISTE 6c |
| 4/11-4/13 | Prepared Project Presentation for Class 13.7hrs | PSC 1.1, 1.2, 1.3, 2.1, 2.2, 2.4, 2.6, 2.7, 2.8, 3.2, 3.6, 3.7, 4.1, 4.2, 5.1, 5.3/ISTE 1a, 1b, 1c, 2a, 2d, 2f, 2g, 2h, 3b, 3f, 3g, 4a, 4c, 5a, 5b |
| 4/15-4/22 | Completed Final Paper, including analysis and conclusions 10.3hrs | PSC 1.1, 1.2, 1.3, 2.1, 2.2, 2.4, 2.6, 2.7, 2.8, 3.2, 3.6, 3.7, 4.1, 4.2, 5.1, 5.3/ISTE 1a, 1b, 1c, 2a, 2d, 2f, 2g, 2h, 3b, 3f, 3g, 4a, 4c, 5a, 5b |
| Reflection:I found the process interesting and creating lessons which would offer a variety of uses for both devices meaningful. The results of the research was somewhat I expect, students just love technology. Students from lower end more so since it may not be something they have home. I know the topic of research has a lot of studies and time ahead to determine the real impact of student learning. It is exciting to be reviewing this at this early stage. But the results showing both types of devices is effective was exciting and meaningful.  |
| Total Hours: [138.8 hours ]: |  |

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| **DIVERSITY**(Place an X in the box representing the race/ethnicity and subgroups involved in this capstone.) |
| **Ethnicity** | **P-12 Faculty/Staff** | **P-12 Students** |
|  | P-2 | 3-5 | 6-8 | 9-12 | P-2 | 3-5 | 6-8 | 9-12 |
| **Race/Ethnicity:** |  |  |  |  |  |  |  |  |
|  Asian |  |  |  |  |  |  | x |  |
|  Black |  |  | x |  |  |  | x |  |
|  Hispanic |  |  | x |  |  |  | x |  |
|  Native American/Alaskan Native |  |  |  |  |  |  |  |  |
|  White |  |  | x |  |  |  | x |  |
|  Multiracial |  |  | x |  |  |  | x |  |
| **Subgroups:** |  |  |  |  |  |  |  |  |
|  Students with Disabilities |  |  | x |  |  |  | x |  |
|  Limited English Proficiency |  |  | x |  |  |  | x |  |
|  Eligible for Free/Reduced Meals |  |  | x |  |  |  | x |  |