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Flipped Learning and TPACK Construction in English Education

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This study examined how preservice English Language Arts teachers learn to teach and use their knowledge of content, pedagogy, and technology during an English education course focused on technology. Seeking to address a gap in the research, this study utilized a case study methodology to look at preservice teachers' learning about the flipped classroom and designing lessons integrating technology as a way for a teacher education course to facilitate preservice teachers' construction of their Technological Pedagogical Content Knowledge. The participants were preservice English teachers taking an online English education course during Summer 2015. The researcher used a survey to purposefully select nine individuals with a range of self-reported knowledge. Participants were then interviewed twice, had their course assignments collected and analyzed, and submitted three written reflections. The course that the participants took challenged preservice teachers to bring together their content knowledge, pedagogical knowledge, and technological knowledge to create flipped lessons videos and a series of lesson plans. The data showed that there was no pattern or stages of TPACK development. Participants saw potential for flipped learning to be useful in secondary English classes and thought about when and what content they could flip.

Keywords: 21st century literacies, flipped learning, TPACK, educational technology, preservice teachers

INTRODUCTION

Digital technologies are bringing change to the classroom, including the secondary English classroom. George, Pope, and Reid (2015) argue that English teacher educators and English teachers will have to work with "the affordances of digital tools and a wide array of texts" as well as "the power of technologies to disrupt traditional pedagogies and

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promote opportunities for all students to learn in and out of classrooms" (p. 9). Teaching literacy in today's digital age will involve instruction in the many texts of the digital age as well as teaching methods that use technology to reach every student.

Education reformers and scholars put pressure on schools to incorporate technology because they see technology as the way to raise students' literacy achievement. Richardson and Mancabelli (2011) and Gee and Hayes (2011) say that one of digital technology's main affordances for teaching and learning is its ability to connect people and to facilitate collaboration. Their work argues that schools would benefit from bringing into the classroom digital tools and the collaborations that they afford. Snyder and Bulfin (2008) say that, "Since desktop computers were introduced into schools in the late 1970's, increasing grandiose claims have been made about their implications for education" (p. 805). Pepi and Scheurman (1996) point out that no technology tool has provided a silver bullet that works with all students in every classroom and that these grandiose claims have been overstated. Digital technologies, computers, and the Internet have not transformed teaching methods so far (Cuban, 2001).

English teachers need experience with new literacy practices and with technologies in order to teach the literacies of our digital age. Teachers must have the knowledge and skills they then teach. Knobel and Lankshear (2014) argue that, "it is increasingly imperative for teachers *themselves* to experience and understand what it means to be fully engaged in new literacies practices" (p. 100, emphasis original). In other words, English teachers need experience with the literacy practices that their students will need, new technology tools as they come along, and with teaching methods that take advantage of technology. Students need teachers who know how to model the literacies of the 21st century. Teacher can get this needed experience in their teacher education courses.

While previous studies looked at whether or not flipped learning is effective, this study looked at how preservice teachers learn to flip instruction in their own future classrooms. This study adds to the research on how preservice teacher learn to teach with technology. It also adds to the research on how preservice teachers construct needed types of knowledge during teacher education courses.

The research questions guiding this study were:

1) How do preservice English Language Arts teachers construct their knowledge on the different parts of the TPACK framework?
2) How does creating flipped lessons facilitate or not facilitate preservice English Language Arts teachers' application of content knowledge and pedagogical knowledge to create lessons that use technology?

LITERATURE REVIEW

THEORETICAL FRAMEWORK: TPACK

The TPACK framework, this study's theoretical framework, is intended to assist teachers, teacher educators, and researchers as they work on integrating technology into classroom instruction. Mishra and Koehler (2006) explain that "Merely introducing technology to the educational process is not enough" and that teachers and scholars need to look at "what teachers need to know in order to appropriately incorporate technology into their teaching" (p. 1018). The TPACK framework is built on Mishra and Koehler's (2006) assertion that "teaching is a highly complex activity that draws on many types of knowledge" (p. 1020). This study used the TPACK framework to explore the different types of knowledge that preservice teachers construct in a teacher education course focused on technology. Researchers have examined preservice teachers' TPACK. Koh and

Divaharan (2011) argue that TPACK develops in distinct stages, while Gao and Mager (2013) argue that TPACK development is an idiosyncratic and individual process.

English education scholars have used the TPACK framework to examine the ways English teachers integrate technology into their classrooms. Hicks (2013) conducted a study of in-service English teachers who created digital portfolios of their work. Shoffner (2013) looked at how preservice English teachers used email, discussion boards, and blogs to reflect on their learning and developing teaching practices. Spires, Hervey, and Watson (2013) examined in-service English teachers in a graduate program as they conducted inquiry projects on technology tools, new literacies, and TPACK. These studies found that working with technology tools builds preservice teachers TPACK and provides opportunities for teachers to think about their own developing TPACK.

PRESERVICE TEACHERS LEARNING TO INTEGRATE TECHNOLOGY

Previous research has found that preservice teachers benefit from working with technology tools and thinking about how to integrate these tools into their classrooms. Smith and Dobson (2011) say that, "additional experience and access to Web 2.0 tools are needed for pre-service teachers to feel comfortable in teaching language arts with new technologies" (p. 326). Smith and Dobson's study is consistent with Pasternak's (2007) finding that preservice teachers "want to be comfortable with the technology with which they intend to practice" (p. 151). Preservice teachers need experience with technology in their teacher education courses if they are to use technology in their future classrooms. Teaching with technology can be a struggle without hands-on experience.

In the field of English education, researchers have conducted studies looking at how teacher educators prepare preservice English teachers to teach with technology. Pope and Golub (2000) say that, "new teachers must be ready to step into the status quo as well as advance the profession by infusing technology into their teaching" (p. 90). While Pope and Golub take a positive view of technology in secondary English and teacher education classes, technology itself is not the end goal. Rather, "Teaching and learning English Language Arts is our goal; technology is a means by which we can reach that goal" (Pope and Golub, 2000, p. 91). Technology is a tool to be used to facilitate literacy learning. Young and Bush's (2004) argue that, "the pedagogical goals take precedence; the technologies are thought of as another means of reaching those goals" (p. 8). Their work suggests that teacher educators would do well to focus on pedagogy and literacy learning, rather than just on technology tools. Technological knowledge (Koehler and Mishra, 2009) of how to use specific technology tools is necessary, but it is not entirely sufficient. Preservice English teachers must also have strong knowledge of content and of pedagogy.

FLIPPED LEARNING

Baker (2000) coined the term "flipped classroom" when he provided his students Power Point slides to read before coming to class. Bergmann and Sams (2012), former high school chemistry teachers, say that in flipped classroom, "that which is traditionally done in class is now done at home, and that which is traditionally done as homework is now completed in class" (p. 13). They assigned their students digital video lectures to watch at home, so that absent students could catch up with the rest of the class. Bergmann and Sams found that having all of their students watch the lecture videos freed up class time for hands-on practice and group projects. They were able to spend more class time working with students instead of conducting whole class instruction.

Bergmann and Sams (2014) moved on in their later work to a teaching method they refer to as flipped learning. They define flipped learning as a "flexible technique to be used when appropriate to maximize face-to-face time with students" (Bergmann & Sams, 2014, p. 35). In a classroom that utilizes flipped learning, instruction no longer takes place

"in large groups" (Bergmann & Sams, 2014, p. 6). Direct instruction is instead provided as needed to individuals and small groups, usually through digital video, so that students can spend time working on researching topics they find interesting and collaborating together on projects. Flipped learning supports active, student-centered methods, including project-based learning. According to Bergmann and Sams, there is no one right way to flip instruction, and teachers should incorporate this method whenever and however it helps them meet the needs of their students.

Empirical research on flipped learning has just begun to emerge during the past few years. Practitioner-geared publications have published pieces geared towards teachers and administrators who may want to flip classroom instruction (Fulton 2012). Cockrum (2014) as well as Bergmann and Sams (2014) have shared lesson plans and ideas for how to use flipped learning in a variety of situations and disciplines, but they did not conduct empirical research.

Most of the empirical research on flipped learning has asked whether or not flipped learning is effective and has been conducted in undergraduate courses (Foertoch, Moses, Strikwerda, and Litzkow, 2002; Ibrahim and Callaway; Sadaghiani, 2012; Sparks, 2013; Jensen, Kummer, and Godoy, 2015; Berg, Ibrahim, Magaster, and Salbod, 2015). These studies found that flipped learning can raise test scores and grades and suggest that this benefit mostly comes from freeing up class time for active learning experiences. There are two studies on flipped learning in secondary English classes (Moran and Young, 2014; Moran, 2014). These studies had mixed results that suggest some students may like flipped English lessons while other students may strongly dislike flipped English lessons.

FLIPPED LEARNING AND TPACK

Previous studies used grades, test scores, and student course evaluations to determine the effectiveness of flipped learning. No previous study examined how preservice teachers learn to flip instruction. This study sought to look at different types of knowledge that preservice teachers develop. Using the TPACK framework, the researchers used the TPACK framework to investigate preservice teachers' construction of knowledge of how to teach English with technology as they went through an English education course.

METHODOLOGY

SETTING AND PARTICIPANTS

This current study was a case study of preservice teachers who took an English education course focused on integrating technology into secondary English classrooms (Yin, 1984; Merriam, 2009; Stake, 1995). A summer 2015 online English Education course at a university in the Southeast United States was the bounded case. The participants were nine undergraduate preservice English teachers who took the study course during summer 2015.

The preservice teachers at this university progress through the English Education major as a cohort, so the researchers went to the course that this cohort took together during the Spring 2015 semester to recruit participants in person. All of the preservice teachers in this cohort were scheduled to take the study course during summer 2015. Out of the 36 individuals enrolled in the study course, 12 gave consent to take part in a purposeful sampling phase, and these individuals took Schmidt, Baran, Thompson, Mishra, Koehler, and Shin's (2009) validated TPACK survey. This survey asked participants about the different kinds of knowledge that are on the TPACK framework. For this study, the survey was adapted for preservice English teachers by removing questions about teaching social studies, math, and science. Questions about teaching literacy were changed to specifically

ask about the teaching of reading, writing, and grammar. The survey is on a 5 point Likert scale, so the researchers averaged the survey participants' scores on the entire survey by adding up their score on each question and then dividing by the number of questions on the survey. The top four survey average scores were categorized as high, the middle four scores were categorized as middle, and the bottom four scores were categorized as low. Three individuals out of each category were selected to give the researchers nine study participants, who each gave informed consent to participate in this study. Out of the nine participants, eight were female and one was male. All participants were English Education majors seeking teaching certification in secondary English. Participants are referred to in this article by pseudonyms.

PROCEDURES OF DATA COLLECTION

The researchers collected several sources of data during this study. Data sources are listed and discussed below.

- Interviews - Each participant was interviewed twice – once before the course began and again at the end of the course. Interviews were conducted in person, audio recorded, and transcribed. Interview questions can be found in the appendices.
- Online Posts - The researchers collected online posts that the participants wrote each week to respond to prompts and questions posed by the course instructor. In these weekly posts, participants discussed technology tools, shared their thoughts on course readings, and began to plan out projects for the course, including their Flipped Lessons Project.
- Flipped Lessons Project - One of the projects participants completed towards the end of the course was to plan, film, and share a series of three flipped lesson videos. The researchers watched participants' flipped lesson videos and wrote fieldnotes guided by Emerson, Fretz, and Shaw's (2011) work. When watching the flipped lesson videos, the researchers looked for the content being taught, the way the material was presented, and how the technology was used to present the material.
- Written Reflections - Participants also wrote reflections at the end of the third, sixth, and ninth weeks of the course. These reflections were written responses to questions that the researchers gave to the participants. Reflection questions can be found in the appendices.

DATA ANALYSIS

All data was analyzed using NVivo 10. The TPACK framework was used to code all data so that the researchers could see what kinds of knowledge participants were using at different parts of the course. All domains on the TPACK framework were used for coding, including the hybrid domains of PCK, TPK, TCK, and TPACK. The researchers were open to further codes as they emerged from the data, using what Charmaz (2006) calls initial coding and focused coding. Once data analysis was completed and initial analysis of the data were written, the researchers conducted member checking. They shared with each participant an analysis of their own individual data. Participants then said whether or not the researcher's "interpretation 'rings true,' " (Merriam, 2009, p. 217). Each participant reported that the researchers' analysis was an accurate reflection of their thinking, so member checking confirmed the findings from the data analysis. The form that the researchers created and used to conduct member checking can be found in the appendices.

FINDINGS

TPACK CONSTRUCTION

Several different factors played a role in participants' TPACK construction during the study course. Participants reported that the course texts assigned by the instructor led them to technology tools that were useful for creating flipped lesson videos. In the course online discussions, participants began to think about flipped learning and plan their own flipped lessons. Through informal collaborations with peers, participants got ideas. For example, participants reported that they asked classmates to suggest technology tools that worked well. Participants also drew on their own experiences as students. Several participants said they drew on assignments and lessons they experienced as high school students that they wanted to use some of the same methods as their own high school teachers. This is a phenomenon that Lortie (1975) termed "the apprenticeship-of-observation" (p. 67). Finally, course projects challenged participants to apply their learning to create flipped lessons designed for secondary students. The following figure helps answer the study's first research question by laying out factors that affected TPACK construction.

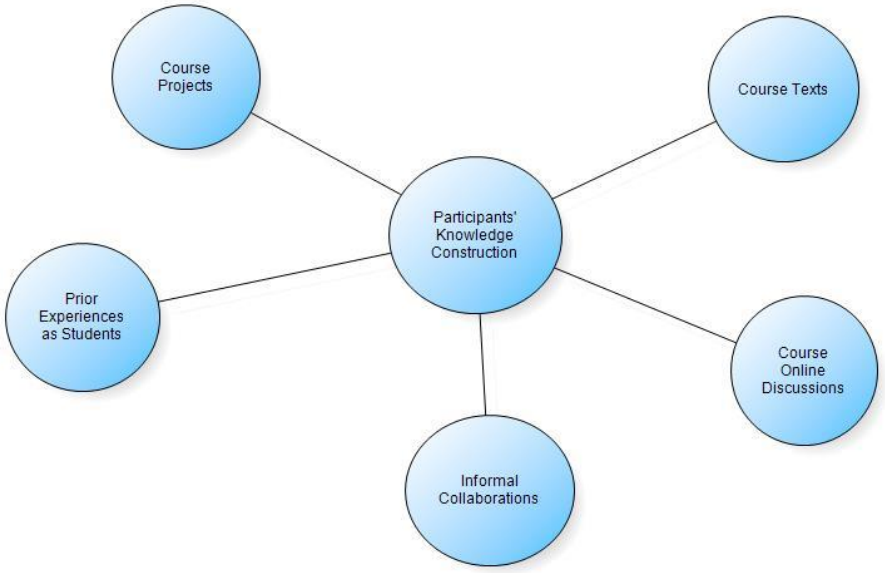

Figure 1: Factors Affecting Participants' Knowledge Construction

Data analysis indicated that participants used knowledge from all parts of the TPACK framework throughout the study course. There was not a progression from participants using PK, CK, and TK at the start of the course to using the hybrid domains of PCK, TCK, TPK, and TPACK later in the course. During all parts of the course, participants used knowledge from all parts of the TPACK framework. The domains of PCK, TPK, and TPACK were coded consistently across all data sources collected from all parts of the course. This suggests that participants constructed and used these types of knowledge throughout the course, and that there were not a series of linear steps of development. This study's findings are consistent with Gao and Mager (2013) and not with Koh and Divaharan (2011).

While participants used their knowledge of content, they did not seem to construct new content knowledge. Participants learning about and use of the pedagogical method of flipped learning facilitated construction of TPK and TPACK. Participants built their Technological Knowledge by learning about a variety of technology tools. In fact, several

participants reported that one of the most valuable parts of the course was getting to use new technology tools and seeing the variety of tools available online for teachers to use. So, to address the study's second research question, while creating flipped lessons facilitated participants' application of content knowledge, but not acquisition of new content knowledge.

PARTICIPANTS' FLIPPED LESSONS

The participants created three flipped lesson videos for their Flipped Lessons Project. The following table shows what content each participant taught in their flipped lesson videos. The participants chose the content for their flipped lessons as well as how to present the material.

Table 1: *Overview of Participants as Individual Cases*

Participant	Flipped Lessons Project
Helen	Plot structure and elements of fiction
Susan	Argumentation – analyzing arguments in articles
Kathryn	Rhetoric and the novel *Unwind*
Anna	Bitstrips and resume writing
Meredith	Literary devices
Isabel	Rhetorical appeals in *Letter From a Birmingham Jail* and in advertisements
Luke	Writing a biography of a historical figure
Laura	Literary lenses and elements of fiction
Jane	Plot structure and elements of fiction

While there wasn't a pattern of use of different domains of knowledge on the TPACK framework, there was a pattern when it came to the content participants chose for their flipped lessons. Participants fell back on familiar content when using this teaching method for the first time. In their first interview, participants were asked what content in English they felt most comfortable with and least comfortable with, and several participants made their flipped lessons on the exact content that said they were most confident that they knew well. None of the participants created flipped lesson videos about content that they said they did not know well. Several participants said that they chose to do their flipped lessons on content that they had learned in coursework they had recently done. That content was familiar and fresh in their minds. Some participants said they chose the content that they did because their "liked" it. Every participant chose content that was comfortable for them to teach.

Participants seemed a bit more willing to experiment with technology when creating their flipped lessons. Several participants said that it took them time to learn the new tools they were using. Other participants said that they used technology tools that they already knew because they had used them before. Participants took advantage of learning a new teaching method, flipped learning, to both try out technology tools and to use familiar technology tools to implement this new method.

Participants reported that they got ideas for their flipped lesson videos from classmates. The participants in this study are part of a group of undergraduates moving through the English education major as a cohort. The preservice teachers in this cohort knew each other well by the time they took the study course, so they felt comfortable working together. Jane said that's she found good technology tools for her flipped lessons project by asking one of her classmates for suggestions. Laura said that she got ideas for her flipped lesson videos by watching some of her classmates' videos. Preservice teachers may seek to learn

from each other when learning about new technology tools and new teaching methods. Preservice teachers can construct their knowledge by collaborating.

Filming the flipped lesson videos was a challenge for the participants. Anna, Luke, and Isabel said that recording themselves was strange, that they were not used to just talking to a camera. While getting experience creating flipped lessons video helped, filming themselves was still something the participants had to get used to. Jane and Meredith said that without students in front of them to react to, they weren't sure how much detail to go into or where students might have questions. This suggests that to craft effective flipped lesson videos, teachers must know their students. Teachers need to have a grasp of what students already know and what students may need explained in a different way. Flipped lessons may need to be revised from year to year based on students' academic needs.

The study course facilitated participants' application of content knowledge by having participants design and film flipped lesson videos about content of their choice. Having participants use a method they learned about for the first time in the course, flipped learning, facilitated participants' application of pedagogical knowledge. The participants didn't just watch videos or read about flipped learning. They went beyond learning what flipped learning is to make their own flipped lesson videos about a variety of content using a variety of tools.

PARTICIPANTS' PERCEPTIONS OF FLIPPED LEARNING

Participants saw uses for flipped learning in secondary English classes. In interviews and reflections, participants had positive things to say about flipped learning. Anna said that flipped lesson should be "highly adaptable," and she saw how flipped lessons could free up class time by having direct instruction on video. She also thought that flipped lesson videos should be used to allow students to "work at their own pace" instead of whole class instruction where one lesson is presented to everyone regardless of readiness for that lesson. Helen believed that flipped lessons could enable a "student-centered environment" in her classroom. Isabel said that flipped lessons could be used for "creativity and active learning," making instruction "as efficient and student-centered as possible." Jane appreciated that "students can get immediate help" in a flipped classroom "rather than trying to figure it out on their own and getting frustrated at home." Kathryn said that when she teaches writing, flipped lessons could "free up time for [students] to practice in the classroom and go straight to the teacher for feedback" on their work. Luke believed that flipped lessons, "opens up class time for applied practice with an expert." He said that flipped learning is "an incredibly efficient educational process that is fit for the digital age." Meredith liked how flipped learning "maximizes class time and students are able to learn more efficiently." Susan said that flipped lessons "helps students to be able to move at their own pace and re-watch the video as many times as they need to," while the teacher with works with students individually or in small groups.

Participants also saw that flipped learning has some potential drawbacks. They did not believe that flipped learning is a perfect method or that it is appropriate for every unit of study. Their concerns dealt with issues that both teachers and students might face.

Teachers have several possible issues to think through when they flip instruction. First, teachers may need time and practice to get comfortable making videos. Anna, Isabel, and Luke all said that they were not used to filming themselves. Anna commented, "I get nervous recording myself." Participants pointed out that making videos can take a lot of time, and Jane said that, "teachers aren't getting paid any extra for the time" it takes to make videos. Luke believed that teachers cannot make effective flipped lesson videos without knowing the content well, saying that, "Confidence in a skill or lesson is important for a flipped classroom." Meredith and Susan both felt that it can be difficult to know how well students are understanding the lesson and adjust accordingly without being in front of

students. Meredith said that she found making her videos difficult because, "I don't have students asking questions or don't have confused looks to respond to."

Students may also come across issues when instruction is flipped. Helen believed that flipped lessons are inappropriate if the content is difficult. She thought that difficult content should be taught in the classroom so that the students can ask questions. Isabel said it may "take awhile for students to adjust to the new system" because this will be a new method they may have not experienced before. Several participants worried about students who may not have the devices or Internet access at home to watch videos. They also wondered what to do with students who simply choose not to watch the videos. There also seemed to be agreement that flipped lessons should hold students accountable for the material in the video. Eight of the nine participants had an assignment for students at the end of their flipped lesson videos – either a question to answer in preparation for the next class meeting or a prompt to respond to on a class blog. Participants believed that these kinds of activities would make students accountable for watching the videos and coming to class ready to participate in an activity applying the material that they learned.

Participants considered when they might use flipped lessons and what content they could flip. Helen said that flipped lessons could be used as a resource to review content students had learned previously, but she also said that difficult and complicated content should be taught in class. Taking the opposite view, Laura said she could see herself flipped lessons "to convey information which may be difficult for students to comprehend." She argued that introducing students to difficult material first through video would free up time in class to discuss the material. Luke believed that grammar would be well suited to flipped lessons because the students could work on examples of grammar concepts after watching the videos. Anna felt that flipped lessons would be best suited for delivering content at "lower levels of Bloom's" Taxonomy. Kathryn wanted to use flipped lessons to have students "practicing specific forms of writing." The videos could introduce students to different genres of writing, freeing up time for students to do peer conferencing and for the teacher to conference with students.

SUMMARY OF FINDINGS

The participants in the study constructed their knowledge on the TPACK framework by using digital tools to create flipped lessons. Preservice teachers can construct their knowledge of technology and of teaching with technology by getting to create their own flipped lesson videos. It seems that preservice teachers learn from experience with technology tools and thinking about how they could use these tools in their classrooms. Participants thought that flipped learning could potentially be helpful to secondary English teachers. They believed that flipped learning could be used in a variety of lessons across the English curriculum, including writing instruction and literature study. The participants consistently wanted to be confident in the content they were teaching when they flipped instruction. Their videos showed how they used their knowledge of content, pedagogy, and technology to teach lessons on different topics an English teacher may teach.

CONCLUSION

This study suggests that preservice teachers benefit from getting experience both with technology tools and with teaching methods that integrate technology into the classroom. Future studies may want to examine secondary classrooms that use flipped learning, as there is little research so far on flipping secondary English classrooms. Knowing more about how flipped learning can be implemented in secondary classrooms may help teacher educators better teach preservice teachers to flip instruction. Future research may also want to explore how schools can support teachers who use flipped learning, especially in light

of this study's finding that it can take a lot of time and practice to make effective flipped lesson videos. Future work in the area of flipped learning may want to look at not only how preservice teachers learn about this method, but also follow them into their first few years in the classroom to see whether and how they use technology to flip instruction.

Technology is affecting teaching and teacher education. Methods such as flipped learning can be useful to teachers as they integrate technology for the benefit of all students. Technology can be used strategically to advance literacy learning.

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APPENDEX

APPENDIX A: PROTOCOL FOR FIRST INTERVIEW

1. Tell me how you decided to major in English Education.
2. Tell me about your professional plans after you graduate.
3. What technology tools have you seen your university professors use in the classroom? How did they use these tools to enhance their teaching?
4. How have your professors demonstrated how you can use technology tools with students? Have your professors in your teacher education program shared lessons that use technology?
5. During your field experiences, what technology tools have you seen your cooperating teachers use? How did they use these tools to enhance their lessons?
6. What technology tools do you think you may use in your classroom? How might you use these tools? How did you learn about these tools?
7. How have your courses taught you content knowledge about literature, writing, and grammar?
8. What content do you feel confident that you can teach well? Why?
9. What content would you like to learn more about? Why?
10. Tell me about how you plan to teach literature in your classroom.
11. Tell me about how you plan to teach writing in your classroom.
12. Tell me about how you plan to teach grammar in your classroom.
13. Have you ever heard of a teaching strategy called the flipped classroom? If so, where did you hear about it, and what do you know about it?
14. What do you expect to learn in the [study course]?

APPENDIX B: PROTOCOL FOR SECOND INTERVIEW

1. Tell me about the Flipped Lessons/Digital Media project you created for the class.
2. How did your choose the topic or content of your flipped lessons? How is this content appropriate for flipped lessons?
3. How did you choose the technology tools you used to create your flipped lessons?
4. Tell me about the Technology Integration Unit you created for this class.
5. How did you decide on the topic or content of your Technology Integration Unit? How might technology help you teach this topic or content?
6. How did you choose the technology tools that you included in your Technology Integration Unit?
7. You're teaching high school English, and the principal announces that the district has decided to have teachers flip their classrooms. The district is expecting all departments in each high school to flip lessons. One of your colleagues in the English department starts complaining that flipped lessons will never work with her students. She also says that flipping is impossible for English teachers because English classes have more

discussions than lectures – it's something only math and science teachers can do. How would you respond to this colleague?
8. The middle school where you teach gets a grant to buy technology. Your principal asks you what technology you would like to get for your English classroom. What do you tell your principal?
9. What topic or content do you think you could better teach with technology? How might technology enhance the teaching of this content?
10. What topic or content would you never use technology to teach? Why would technology not be appropriate for teaching this content?
11. What is the most important thing you learned this summer in [the study course]?
12. What do you still want to learn about teaching English with technology?

APPENDIX C: REFLECTION QUESTIONS

Reflection 1 (End of week 3 of the course):
1. What are you learning so far in the course?
2. What tools have classmates shared that you think you could use in your classroom? How could you use these tools to teach English?
3. When and how should English teachers use Web 2.0 tools in their classrooms? Why should English teachers use Web 2.0 tools in their classrooms?
4. Should secondary students learn about Web 2.0 tools for reading and writing in English class, or should students take a technology class?

Reflection 2 (End of week 6 of the course):
1. What stands out as the most important thing you've learned in the first half of the course?
2. In *Create, Compose, Connect!* Hyler writes about engaging students in the kinds of digital reading and writing that they do outside of school. Should English teachers bring into the classroom digital tools that students use outside of school? Why or why not?
3. Hyler argues that English teachers should include digital reading and writing tools in their classrooms while still reading and writing traditional print pieces. How can English teachers find a balance of teaching digital literacies that use Web 2.0 tools and teaching traditional pen and paper literacies?
4. What topic are you thinking of teaching for your Flipped Lessons Project? Why are you considering this topic?

Reflection 3 (End of week 9 of the course):
1. Cockrum argues that flipped lessons can work in English classrooms. When and how should English teachers use flipped lessons in their classes?
2. How has the Cockrum book you've read helped you create flipped lessons designed for an English class?
3. Based on your reading of the Cockrum book, what are some advantages and disadvantages of flipped lessons?
4. How is your Flipped Lessons project coming along? What has been challenging about creating your flipped lessons? What has been easy about creating your flipped lessons?

APPENDIX D – MEMBER CHECKING FORM

1. After looking at my preliminary analysis of your interviews, flipped lessons, Weekly Thinks, and reflections, does my analysis make sense? Does it agree with your thinking?
2. Is there anything I misunderstood? Anything I should change or rethink?
3. Any final questions or comments?
4. Participant's signature:
5. Date