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Meeting Myself as a Scholarly Practitioner: A Self-Study Exploring the Process of Integrating Instructional Technology into Introductory Theater Courses

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MEETING MYSELF AS A SCHOLARLY PRACTITIONER: A SELF-STUDY EXPLORING THE PROCESS OF INTEGRATING INSTRUCTIONAL TECHNOLOGY INTO INTRODUCTORY THEATER COURSES

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ABSTRACT

MEETING MYSELF AS A SCHOLARLY PRACTITIONER: A SELF-STUDY EXPLORING THE PROCESS OF INTEGRATING INSTRUCTIONAL TECHNOLOGY INTO INTRODUCTORY THEATER COURSES

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Dissertation supervised by Dr. Sandra Quiñones

A growing number of faculty in higher education are using technology applications in their teaching practices. However, a gap in the literature exists related to instructional technology integration in liberal arts courses. This gap also exists in theater education, where I have spent the last 20 years of my professional life. This self-study analyzed my knowledge and practice of using instructional technology in theater education. Using technological and pedagogical content knowledge (TPACK) as a theoretical framework, I examined my teaching of introductory theater courses in face-to-face and online formats. As part of the inquiry process, I collected and analyzed multiple discrete data sources. My objective was to understand how I utilized instructional technology as a theater educator and how TPACK informed my practice regarding the intersection of three primary forms of knowledge: content, pedagogy, and technology

knowledge. In combining the fields of instructional technology and theater education, this study offers a novel contribution to the self-study literature on teaching in higher education. The four thematic findings of this self-study begin to fill the gap in the literature and have implications for faculty development related to technology integration in the liberal arts. Furthermore, this research leads to a better understanding of technology-infused teaching and learning practices in theater as a disciplinary field. Recommendations for future research include an arts-based self-study exploring the integration of instructional technology using TPACK in costume, set, light, or sound design courses. As well as exploring the use of TPACK with learning management systems such as Desire2Learn, Blackboard, or Canvas by educators, to teach fine and performing arts courses in higher education.

Keywords: instructional technology, introductory theater, theater, TPACK, self-study

DEDICATION

Dedicated to the memory of my beloved parents, Dolores Elizabeth Broomer and Jeston William Broomer; my uncle, the late Sylvester West; my grandmother, Lillian Devore West; and great-great-grandmother, “Grand mom Jack,” a slave.

ACKNOWLEDGMENT

Completing this remarkable journey could not have been possible without the assistance of so many people whose contributions are sincerely appreciated. I would like to express my gratitude and indebtedness to the following extraordinary people.

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LIST OF ABBREVIATIONS

ASU	Alabama State University
BU	Bloomsburg University
CAQDAS	computer-assisted qualitative data analysis software
CK	content knowledge
DU	Drexel University
FFF	future faculty fellowship
LHU	Lock Haven University
LMS	learning management system
LORT	League of Resident Theatres
PK	pedagogical knowledge
PCK	pedagogical content knowledge
TCK	technological content knowledge
TK	technological knowledge
TPK	technological pedagogical knowledge
TPACK	technological pedagogical content knowledge
TU	Temple University
WCU	West Chester University

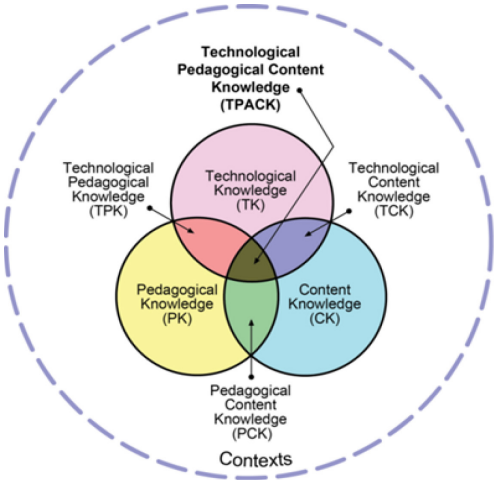
Chapter 1

Introduction

Technology has become a core competency of higher education instruction. Nonetheless, many professional development programs focus on teaching faculty to use specific technology applications rather than showing them approaches to technology integration in the classroom (Dysart & Weckerle, 2015). The literature suggests that there are various reasons higher education faculty do not use curriculum-specific technology, ranging from the workload, time constraints, and a lack of support and resources to a preference by faculty for traditional teaching methods (Watty et al., 2016, p. 10). However, for 18 years, I have integrated instructional technology into an introductory general education theater course using components of the technological pedagogical content knowledge (TPACK) theoretical framework. Integrating instructional technology has allowed the course to develop beyond the physical limits of the classroom. I have incorporated engaging, interactive content that is well-suited to the dynamic elements of theater presented in the course. Accordingly, this self-study analyzed my knowledge and practice of using instructional technology in theater education. Using TPACK as a theoretical framework, I examined my teaching of an introductory theater course—the context of this self-study—in both face-to-face and online formats. Figure 1 illustrates the TPACK framework. Technology integration must honor the rich connections between technology, the subject matter (content), and the means of teaching it (the pedagogy) (Koehler & Mishra, 2005, p. 95).

Figure 1

The Technological Pedagogical Content Knowledge Framework



My objective was to gain a deeper understanding of (a) how I utilized instructional technology in theater education and (b) how the TPACK framework informed and challenged my perspectives and experiences with the intersection of content knowledge (CK), pedagogical knowledge (PK), and technological knowledge (TK). This study's findings are informative for faculty development related to technology integration in the liberal arts, particularly given the increasing prevalence of online instruction in higher education and administrators' reductions of the liberal arts in general education curricula. This latter practice, called academic prioritization, is increasingly being employed in both theory and practice by administrators at liberal arts colleges and universities across the United States to justify decisions to cut programs or even entire departments (Dutt-Ballerstadt, 2019, p. 1).

Background of the Study

For centuries, higher education institutions in the United States have taken various approaches to establishing and implementing general education curricula, the series of courses that all undergraduates must complete regardless of their major or concentration.

While the specific objectives and requirements of a general education curriculum are unique to each institution, the purpose is similar: to ensure that all undergraduates develop a broad range of knowledge, skills, and intellectual approaches. Thus, general education curricula provide a foundation for more advanced coursework and help prepare students to become responsible and productive members of society (Henschel et al., 2018, p. 84).

For many years, colleges and universities have offered introductory courses in large-enrollment sections seating hundreds of students (Vreven & McFadden, 2007, p. 86). Thus, there is a need for course offerings that can enroll large numbers of undergraduates. In recent decades, colleges and universities have responded to tightening budgets and the increasing challenges of allocating scarce faculty time across research, teaching, and administrative responsibilities by increasing class sizes (Emerson et al., 2018, p. 2). Due to the increased enrollment in undergraduate programs at colleges and universities, the maximum class sizes of general education courses have risen significantly. These large-section classes produce several circumstances that may affect student learning and motivation (Vreven & McFadden, 2007, p. 87).

First, students may feel anonymous in large classes, and class discussions are usually impractical (Hilton, 1999, p. 117). Discussions are incorporated into large-section courses, thus reducing the time learners have to participate in them actively. Moreover, physical classroom environmental factors, including poor instructor and projector screen visibility or excessive noise in large lecture halls, may exacerbate some students' difficulties in paying attention (Emerson et al., 2018, p. 4).

The idea of teaching large classes often elicits negative responses from faculty (Jenkins, 1991, p. 77). One reason for this is that some large classes' growth rate has surpassed instructors' abilities to receive instructional technology training, particularly TPACK. As with most courses, more training is also needed for educators teaching introductory theater courses with large sections of students. This self-study analyzed how I have used dynamic multimedia course content developed through TPACK in my introductory theater course. The term *multimedia* refers to the integration of media such as text, sound, graphics, animation, video, and imaging in a computer system (Surjono, 2015, p. 117).

Problem Statement

Teachers in higher education often emulate the practices of those who taught them, and these practices generally do not involve the active use of technology (Dysart & Weckerle, 2015). Colleges and universities often allocate funds for installing technical equipment in lecture halls and classrooms. Furthermore, certain factors affect teachers' willingness to integrate technology and information communication in the classroom.

These factors include support from the institution's administrators, personal experiences with technology, and the inadequate training provided to use the resources available to them (Mirzajani et al., 2016, p. 26). This training usually fails to offer guidance in which faculty members are modeling various instructional methods that integrate the technology (Chuang et al., 2003; Smith, 2000). Pedagogical readiness is as essential as computer competency; it aids in educating students and preparing instructors by providing advanced levels of education during the teaching process (Li et al., 2019). However, proficiency with technical equipment does not guarantee faculty members'

ability to develop discipline-specific curricula that take advantage of the equipment; teachers often struggle to integrate the technology available to them within the classroom (Hickson, 2017, p. 21).

Teachers and their students are the direct beneficiaries of improvements and innovations in instructional tools. However, the research and development that goes into the production of such devices have primarily been the domain of academic researchers and multimedia and educational technology companies (Etsename, 2018). Mirzajani et al. (2016) argued that understanding these factors and the TPACK framework will assist future educators and provide better insights into the ideal environments in which technology improves both the learning process and teachers' professional development.

There are few opportunities to develop faculty for online teaching. When offered, the opportunities are low quality and focus primarily on technology with little or no emphasis on online instruction pedagogy (Keengwe et al., 2018). Teachers need a means of training that provides more flexible and convenient opportunities to share ideas and express concerns regarding technology integration (Hickson, 2017, p.17).

Many professional development programs focus on teaching faculty about technology applications rather than showing them how to approach technology integration in ways that are specific to their disciplines (Dysart & Weckerle, 2015). Redesigning professional development can address these issues (Hickson, 2017, p. 37).

The primary issue is that educators lack the knowledge and capability to consistently and effectively integrate technology into their courses. Although teachers do receive some professional development, most still feel unprepared to use the available technology. Many educators admit that they are not familiar with the best ways of

integrating technology into the classroom. This admission is an essential barrier to technology integration; however, it is not the only one. Two other barriers to adoption are difficulty using the technology and difficulty in learning to use technology (Hickson, 2017, p. 13).

Offering general education content that is engaging and informative for introductory theater courses is crucial. Contemporary learners actively engage with media technology, cellular technologies, and other interactive digital media tools (Jensen, 2008). Although these technologies were undiscovered 15–20 years ago, these increasingly globalized tools have become an indispensable part of our lives. Commonly used social applications include blogs, blogging, gaming, videos, picture-sharing, iPods, iPhones, iPads, YouTube, Twitter, Facebook, and LinkedIn (Dilci & Eranıl, 2019, p. 1).

Innovation, technology, and research are indispensable tools of education in the 21st century. Change occurs when creating or developing new ideas. Choosing to follow yesterday's methods rather than implementing new practices is a barrier to educational development (Anil, 2019, p. 130). New literacies of K–12 and higher education learners develop from their exposure to instructional technology. Instructional technology improves the quality of learning experiences, removes barriers to achievement, and offers a platform for differentiated learning. It also provides new ways of motivating and engaging learners, offers a wide range of tools to enable innovative teaching and learning, and facilitates greater participation with fairer access to online content (Jethro et al., 2012).

Drama or Theater

The terms *drama* and *theater* are often used interchangeably in the literature. This section defines these terms and justifies primarily using the word "theater" in the dissertation. The term "drama" derives from the ancient Greek word *draō*, which means "to do." The term "theater" comes from the Greek word *theatron*, which means "viewing or seeing place" (Coates & Foley, 2010). Teachers typically use the word "drama" in K–12 settings. However, the term "drama" in higher education refers to a branch of literature in English.

The Greek philosopher Aristotle states in *The Poetics,* "according to some, the reason for plays being termed dramas is because in a play the personages act the story" (Ediciones, p. 9). He also indicates six elements of drama in decreasing order of importance: plot, character; theme or thought; diction; music; and spectacle (Landa, 2004, p. 15). Table 1 outlines some distinctions between drama and theater.

Table 1

Drama Versus Theater

Drama	Theater
The focus is process	The focus is on the product
Script	Live performance
Blueprint for a production	Three-dimensional realized production
Dramatic literature	A dramatic representation of the play
Playwright's work analyzed by readers	Playwright's work interpreted by director, designers, and actors for a live audience
Applied theoretically in class	Applied practically onstage

The primary difference between drama and theater is that the former is the printed script or text of a play, whereas the latter is the entire play production (Wright, 2018). Drama is a process centered on activities devised by a teacher for learners in a classroom.

In comparison, theater is product-centered, with instructions given by a director for actors onstage (Kelso, 2018).

I primarily use the term "theater" in this dissertation since my research occurs in a higher education setting. Furthermore, my introductory theater course intends to give an orientation to the process of creating a performance for a live audience. These performances are based on a playwright's work subsequently translated by a director working collaboratively with designers and performers.

Theater in Higher Education

Theater is the enactment of a dramatic performance on stage in front of a live audience (Wilson, 2018). In 1914, Thomas Wood Stevens started the first degree-granting program in theater at the Carnegie Institute of Technology in Pittsburgh, PA. He was the head of the drama department there, a center of experimentation in drama education methods from 1913–1925. The Carnegie Institute of Technology was the first school of theater, and it stressed an efficient approach to theater arts (Stevens, 1914). After the inception of this program, theater education grew tremendously in American colleges and universities (Baker, 1984, p.2).

George Pierce Baker (1866–1935) taught drama in Harvard University's English Department from 1888–1924. He resigned in 1925 and transferred to Yale University after unsuccessfully convincing Harvard to offer a degree in playwriting (Luebering, 2020). Baker helped open the Department of Drama at Yale University and the Yale School of Drama. His efforts established theater as a separate field of study (Banham & Brandon, 1995, pp. 72–73).

From 1945 to the 1950s, the number of theater courses doubled, with most colleges and universities providing theater instruction and a quarter of these offering the B.A. by 1960. By the end of the 1960s, undergraduate theater teachers and majors had tripled (Berkeley, 2004, p. 12). Following World War, I and II, American colleges and universities expanded their range of instruction and dramatic extracurricular activities. Formal theater instruction increased sharply in all parts of the country (Hobgood, 1964, p. 143). From the end of World War II to the 1970s, when state and federal legislatures appropriated a large share of mounting national prosperity for the expansion of colleges and universities, curricular theater in these institutions soared (Berkeley, 2004, p. 19).

Theater studies' widespread popularity with students led to remarkable curricular growth. In approximately 80 years, theater grew from isolated courses at the turn of the century to well over 14,000 courses in the 1970s. The steepest rise occurred during higher education's unprecedented expansion between 1945–1979 (Berkeley, 2004, p. 11). The 1950s solidified the rise of a professionalized curriculum for the next 15 years. College and university campuses across America constructed hundreds of performing arts facilities (Morrison, 1973, p. 47).

Today, theater is taught in K–12 and higher education. Undergraduate programs at colleges and universities in the United States offer theater courses that fulfill the requirements for both majors and non-majors. Educational theater is almost an exclusively North American phenomenon with nothing comparable in Europe (Baker, 1984, 3). Live theater is a collaborative art form that is multilayered and textured. It involves both the message and delivery (Segedin, 2017, p. 4) and teaches several highly valuable skills that can contribute to student success, regardless of a student's major

(Geigel & Schweppe, 2005, p. 2). These skills include effective time management, creative problem-solving, and enhanced communication. A theater course presented to large numbers of undergraduate non-majors necessitates integrating text, photos, audio, and video to appreciate live theater fully.

Theater, the subject of my general education course, THEA110, examines performance based on a playwright's work before a live audience and incorporates the elements of acting, directing, and design (i.e., costumes, scenery, lights, and sound). My introductory theater course provides exposure to performance art that can enrich students' lives, foster their appreciation for the performing arts, and stimulate interest in studying theater or other education and humanities courses.

Theater and Instructional Technology

Integrating technology into the classroom is not about teaching students to operate computers but about helping teachers use technology to teach (Sheingold, 1991). Academics agree that theater researchers are in danger of being left behind if the research community does not embrace digital society (Roberts & Barber, 2016, p. 348). As such, theater researchers are beginning to realize how technologically enhanced drama processes make for innovative and engaging learning and research (Roberts & Barber, 2016, p. 345).

Using instructional technology in theater education enhances contemporary learners' digital literacy by familiarizing them with technology while understanding the collaborative process by which an idea within the script's pages becomes a fully realized production on stage. For example, learners can virtually experience stage space, watch videos featuring theatrical practitioners working worldwide, listen to professional

productions of audio plays, and engage in asynchronous or synchronous weekly collaborative discussions. To this end, the integration of instructional technology into introductory theater courses can significantly enhance the learning experience by introducing blended learning, a combination of activities that merges face-to-face classroom sessions with online features. The key ingredients of blended learning are face-to-face and online instruction or learning (Hrastinski, 2019, p. 565). This learning type promotes the development of active, self-directed skills for learners and provides optimum flexibility (Garnham & Kaleta, 2002).

Research Questions

Given the objective of analyzing my knowledge and practice of using instructional technology in theater education, the following research questions guided my thesis:

RQ1: How do I utilize instructional technology in theater education?

RQ2: How does TPACK as a theoretical framework inform an understanding of my teaching practices?

RQ3: How does TPACK as a theoretical framework challenge my perspectives and experiences regarding the intersection of three primary forms of knowledge: CK, PK, and TK?

These research questions have allowed me to focus on three areas: (a) my instructional practice, (b) my professional development and experience related to technology integration in the liberal arts, and (c) the use of TPACK in theater education from a scholarly practitioner's perspective.

Significance of the Study

This study is significant because in analyzing my instructional practices, the findings may resonate with others and lead to a better understanding of technology-infused teaching and learning practices in theater as a disciplinary field. Theater education is an understudied and undertheorized research area in higher education, particularly as it relates to instructional technology. Thus, this examination of instructional technology and theater education via self-study methodology provides a novel contribution to the scholarship of teaching and learning in higher education.

Theater researchers are beginning to realize how technologically enhanced drama processes facilitate innovative and engaging learning and research (Roberts & Barber, 2016, p. 345). Instructional technology can be integrated into various courses and subjects, making it a vital option for advanced educational learning in theater (Smith, 2000, another significant motive for conducting this self-study.

Definitions of Terms

In this section, I provide the reader with brief descriptions of the terms used in this dissertation. I further describe these terms in Chapter 2.

Instructional technology is the branch of education concerned with the scientific study of instructional design and development (Kurt, 2017). It examines the theory and practices underlying the design, development, utilization, management, and evaluation of technological processes and learning (Seels & Richey, 2012, p. 10).

Introductory theater is a general survey course I teach that explores the essential components of live theatrical productions, including acting, directing, playwriting, makeup, lighting, set design, and costuming (Lockhaven.edu, 2018).

Self-study refers to the study of formative, contextualized experiences that have influenced the teachers' thinking and teaching practices (Samaras et al., 2004). A primary challenge of self-study is disregarding personal biases and assumptions to examine and understand practice in new ways (Loughran, 2012, p. 195). Self-study research is a personal systematic inquiry situated within one's teaching context that requires crucial and collaborative reflection to generate knowledge and inform the broader educational field (Sell, 2009).

Theater comes from the ancient Greek word *theatron*, meaning "viewing or seeing place" (Coates & Foley, 2010).

TPACK is a complex interaction among three bodies of knowledge: CK, PK, and TK. These bodies of knowledge, both theoretically and practically, produce the types of flexible learning needed to integrate technology into teaching successfully (Koehler & Mishra, 2009, p. 60).

Assumptions

One assumption of this study is that the use of TPACK to integrate instructional technology into an introductory theater course renders teaching and learning. TPACK is a relatively new theory that has not yet been generally accepted and requires a more robust theoretical conceptualization (Angeli & Valanides, 2009). However, implementing TPACK implies rigorous teaching with technology (Setiawan et al., 2018; p. 1043). Since this self-study is a process of learning the personal attributes and weaknesses of my teaching practice, a further assumption is that the journey of self-reflection would provide a link between being an educator in theater education and the framework's pedagogy

employed (Loughran, 2014). The assumption was that bringing these skills and professional technical knowledge to the classroom would be significant.

Overview of the Dissertation

Chapter 1 discussed the background and design of this self-study using TPACK as the theoretical framework to examine my teaching practice in the context of an introductory theater course. The research questions previously mentioned guide the next phase of the dissertation, in which the TPACK framework is investigated in greater detail and applied to instructional technology in theater education. Chapter 2 provides a review of the literature view. Since PK, TK, and CK are the most significant factors of this self-study aspect, they comprise the largest part of the literature review. Chapter 3 explains the data collection and analysis methodology for this qualitative self-study.
Chapter 4 presents findings from the analysis of the data collection process. In Chapter 5, the discussion provides an overview and the implications of results pertaining to policy, research, and practice with suggestions for future research. This study provides educators with my personal experiences as a scholarly practitioner using TPACK in theater education.

Chapter 2

Literature Review

The rapid technological advancement of the modern era has transformed teaching and learning. The effective integration of technology in higher education is becoming a priority for many institutions (Hofer & Grandgenett, 2012, p. 83). Educators must exhibit proficiency in how technology can be coordinated with PK and CK to integrate it effectively into classroom instruction (Tanak, 2020). The TPACK framework provides a basis for enhancing teachers' understanding of using technology constructively to promote teaching and support learning.

The primary focus of this literature review is the integration of technology in higher education. The first aspect covered is the TPACK framework. Next, other essential elements for this process include technology in higher education (with a strong focus on technology use and online learning impact in higher education), educational technology and instructional technology, professional development, and integrating instructional technology into the undergraduate theater curriculum.

Technological Pedagogical Content Knowledge

TPACK is a complex interaction among three bodies of knowledge: CK, PK, and TK. The output of these bodies of knowledge, both theoretical and in practice, produces the types of flexible experience needed to integrate technology into teaching successfully (Koehler & Mishra, 2009, p. 60).

The TPACK framework, introduced by Mishra and Koehler (2006), builds on Shulman's (1986) pedagogical content knowledge (PCK) model, which describes how teachers' understanding of educational technologies and PCK enhances effective teaching

using technology (Çam & Koç, 2019, p. 2). Technological pedagogical content knowledge refers to the connections between CK, TK, and PK essential in improving student learning (Agyei et al., 2011).

Shulman (1986) advanced the thinking on teacher knowledge by introducing PCK (Mishra & Koehler, 2006, p. 1021) as a counter to criticisms and general misconceptions of the teaching profession and skewed state teacher examinations that focused merely on teaching content. Pedagogical content knowledge refers to the meeting point of PK and CK. In addition to emphasizing the importance of technological integration, the TPACK framework demonstrates the existing relationships among its three components (i.e., pedagogy, technology, and content). A TPACK-based teaching process cannot be conducted by a teacher who only has technological skills, whose CK is weak or lacks pedagogical skills (Benson & Ward, 2013; Çam & Koç, 2019, p. 3). It also cannot be conducted by a teacher who has good CK but lacks TK.

In analyzing the teaching profession, Shulman specified three types of teacher knowledge: (a) subject matter knowledge, (b) PCK, and (c) curricular knowledge. Shulman (1987) elaborated on the scope of PCK by classifying teacher knowledge into seven categories, the first three being content-related and the remaining four being pedagogically oriented (Van Driel et al., 1998, p. 675).

The four intersecting knowledge areas are TPACK, technological content knowledge (TCK), technological pedagogy knowledge (TPK), and PCK (Setiawan et al., 2018, p. 1043). To understand the TPACK framework, teachers need an exact type of these domains of knowledge and the domains' intersection. Couched within these concepts are seven variables, described below.

Technical Knowledge

TK comprises both standard (such as blackboards and books) and advanced (such as digital videos) technologies. It includes the skills essential for using certain technologies, such as knowing how to install and uninstall software programs, install and maintain peripheral devices, and create archive documents (Mishra & Koehler, 2006, p. 1027). Within the teaching profession, TK includes the knowledge required to use technology as a teaching tool to facilitate instruction instead of using it to promote student learning.

As a teacher, I need to know which digital tools are readily available, easy to incorporate, and appropriate for my course. It is crucial to understand information technology to apply it effectively in teaching (Asamoah, 2019, p. 405). However, given that technology is continually changing, TK also changes over time.

Pedagogical Knowledge

PK comprises teachers' knowledge regarding the processes and methods used in teaching and learning and incorporates aspects such as the educational purpose, objectives, and values. PK is essential for understanding classroom management skills, lesson planning, how students learn, and preparing student assessment (Koehler & Mishra, 2009, p. 64).

This knowledge form includes knowledge about teaching techniques, the nature of students and other target audiences, and the methods employed to evaluate students' comprehension levels. PK requires an in-depth understanding of the cognitive, developmental, and social theories of learning and how they can be applied effectively

within classrooms. PK can be essential to improving teaching and learning in higher education (Kleickmann et al., 2013).

Content Knowledge

CK to teachers' experiences on the subject matter to be taught or learned, such as history, art, music, or science (Koehler & Mishra, 2009). This CK includes the knowledge of concepts, theories, frameworks, evidence, ideas, and established practices or methods used in developing such an understanding. Knowledge and the mode of inquiry vary significantly between content areas (Koehler et al., 2013). For instance, the concepts taught in art differ considerably from those taught in science. When teaching science, one must understand scientific theories and facts and employ evidence-based reasoning.

Conversely, art appreciation requires one to know art history, historical contexts, and details about famous artists and paintings, and psychological theories for evaluating art (Harris et al., 2009). Without CK, students can be given inaccurate information and develop misconceptions about the content area (Tanak, 2020).

Pedagogical Content Knowledge

PCK addresses the core elements of teaching, learning, curricula, assessment, and reporting, such as the conditions that promote learning and the links between curriculum, assessment, and pedagogy (Koehler & Mishra, 2009, p. 64). PCK is the knowledge of instruction or pedagogy used in teaching the subject matter; it involves the knowledge developed over time and through experience (Schmidt et al., 2009).

It is essential for transforming content for instruction. This transformation occurs as teachers engage with learners and interpret the subject matter or identify alternative

approaches to representing concepts. Educators adapt or tailor information to meet students' knowledge (Graham, 2011, p. 1,958; Koehler & Mishra, 2009). Irrespective of how educators teach their subject areas, their skills and ability are challenging when one is unfamiliar with the content to be taught. To improve the quality of education, it necessary to enhance teachers' PCK (Evens et al., 2015, p. 2).

Technological Content Knowledge

TCK is knowledge of how to teach a subject matter and a deep understanding of how this can be changed by applying technologies (Koehler & Mishra, 2009, p. 65). It is knowledge regarding how to utilize technology within a specific content area. It involves understanding how technology and content influence or limit each other (Chai et al., 2010, p. 67; Koehler et al., 2013) and promotes an understanding of communicating the subject content through different technological platforms. Moreover, it enables teachers to determine the best-suited tools for teaching content (Graham, 2011). To do this, educators must understand how technology can provide diverse avenues to enhance content teaching.

The choice of technologies can enhance or limit the types of content taught. Similarly, individual content decisions can restrict the types of technologies that teachers can use (Cox & Graham, 2009). The introduction of newer and more varied technologies facilitates the teaching of different types of content. Modern technological applications provide more flexibility in navigating different representations (Stover & Veres, 2013).

TCK highlights teachers' need to be knowledgeable in more than just the subject matter they teach. Teachers must understand which types of technologies are best suited

to learn the subject matter in their areas of specialization and how the content dictates or changes the technology used (Koehler & Mishra, 2009).

Technological Pedagogical Knowledge

TPK is the comprehension of the components and capabilities of the various types of technologies that can be used in teaching and learning and how the specific use of technologies can significantly change teaching and learning (Koehler et al., 2013). TPK involves understanding how specific technological tools can enhance or limit teaching and learning. Instructors must fully understand the potential benefits and limitations of technologies used within certain learning activities to develop TPK (Archambault & Barnett, 2010). A deeper understanding of the constraints and affordances of technologies and the disciplinary contexts is needed to build TPK (Koehler & Mishra, 2009, p. 4).

Educators must demonstrate creative flexibility with the resources available to enhance teaching and learning. Flexibility in using technological applications is essential because most software programs have not been customized for educational purposes. Therefore, teachers should possess adequate knowledge and skills to reconfigure technologies and customize them for pedagogical purposes (Koehler & Mishra, 2009).

Technological, Pedagogical, and Content Knowledge

TPACK comprises the knowledge that covers more than the three core aspects (i.e., technology, content, and pedagogy). Nonetheless, it emerges from knowing these three factors (Koehler et al., 2013). TPACK forms the basis of effective teaching requiring a proper understanding of how to represent concepts using technologies. TPACK includes pedagogical approaches that utilize educational technologies in constructive ways and knowledge of the aspects that make the subject matter difficult or

easy to learn. Understanding how to address students' specific problems; and improving the existing knowledge to develop new epistemologies or strengthen old ones using technology (Koehler & Mishra, 2009, p. 66).

The integration of knowledge regarding technology, content, and pedagogy allows teachers to effectively use TPACK to facilitate teaching and learning (Lee & Kim, 2014; Mouza et al., 2014). Given that no technological solution is suited to every teacher, the understanding of TPACK provides teachers the flexibility to navigate and discover practical solutions to the issues they face. The TPACK framework suggests that the type of knowledge teachers must develop can be considered a new form of literacy (Voogt & McKenney, 2017). This literacy involves developing practical skills, competencies, and knowledge that transcend specific knowledge regarding disciplines, technologies, and pedagogical techniques (Graham, 2011).

TPACK should be a central element at all levels of teacher preparation. Because technology evolves so quickly, teachers must continually reevaluate how students can best learn with technology (Mishra et al., 2011). Teachers should think widely, be willing to learn, accommodate new concepts, and adapt to technological change (Chai et al., 2010). Teaching is a complex, multifaceted domain that requires developing competencies in the three crucial components of knowledge: technology, content, and pedagogy (Asamoah, 2019). The TPACK framework facilitates the development of improved techniques for discovering and describing how technology-related professional knowledge is implemented in practice (Rahman et al., 2017) and allows educators to transcend oversimplified teaching techniques that treat technology as an "add-on."

Instead, teachers can focus on the significant contribution of the three knowledge areas in a classroom context (Graham, 2011; Koehler et al., 2013).

As a theater instructor in higher education, my practice is informed by TPACK in an organically challenging manner that varies with each emerging technology, set of course materials, and group of learners. TPACK can be expressed by educators uniquely for different students and contextual conditions (Agyei & Voogt, 2011; Mishra & Koehler, 2006). The TPACK model defines technology as a complex, multidimensional process that requires understanding the dynamic relationships between the domains of pedagogy, content, and technology (Pamuk et al., 2015). Teachers enter the classroom with CK and PK but not necessarily TK (Dysart & Weckerle, 2015). For instructors, TPACK is considered the basis of good teaching with technology (Setiawan et al., 2018, p. 1043); however, research on TPACK used in specific subject domains is sorely lacking (Voogt, 2017, p. 69).

I attempt to address this research gap with my self-study research. Teachers who choose to integrate technology into their classrooms face the difficult task of keeping up with rapidly changing tools; they confront a seemingly endless cycle of learning and relearning technology (Koehler et al., 2011, p. 148). The abundance of educational technology, applications, and tools has spurred educators to use many instructional activities without considering whether the techniques increase student learning. The education sector has heeded the call to integrate technology into the classroom; however, it is not clear whether students' educational proficiencies improve due to this attempt. According to numerous studies (Corry & Stella, 2018; Hastings, 2009), integrating digital technologies into curricula does not prepare students for the modern workplace, although

educators have studied numerous variables related to this deficit. In general, teachers faced barriers, such as a restricted curriculum and lack of training in using technology, stifling the use of technology in practices aligned with their pedagogical practices (Ruggiero & Mong, 2015, p. 162

The TPACK model applies to several content areas. Educators must be experts in their curricula and understand how knowledge shifts depending on the content area. My research interest is the integration of ionstructional technology (IT) into theater curricula. The TPACK model applies to many content areas, including English, computer science, social studies, science, literacy, and arts education, including theater (Harris, 2008).

Theoretical Framework: TPACK

The TPACK framework proposed by Mishra and Koehler (2006) provides a structure in which teachers can use technology to enhance their pedagogical practices. Technology has become a formidable presence in society as virtual education gains wide acceptance as a vital learning feature. The TPACK framework offers a productive approach that helps teachers implement technology into their teaching. By differentiating among the three types of knowledge, the TPACK framework outlines how content and pedagogy must form the foundations for any effective integration of technology into teaching. TPACK is pivotal because the technology implemented must communicate the content and support the pedagogy to improve education and enhance students' learning experiences.

As a theater instructor in higher education, I face the challenge of applying TPACK to developing curriculum-specific content that can be comprehended by a group

of learners using IT. Knowledge is a core component of TPACK and its predecessor, PCK.

The TPACK framework allows educators to use technology as a useful teaching tool to help create and deliver an alternative, more readily available instruction, promote positive and active engagement with learners, and improve student comprehension of pedagogically challenging content. Studies have shown that the TPACK framework can help overcome the challenge of teaching CK abstractly (Rahman et al., 2017). Evidence exists that the TPACK framework allows educators to employ educational technologies to enhance their teaching, improve students' understanding of CK, and improve overall teaching and learning outcomes (Brinkley-Etzkorn, 2018; Joo et al., 2018; Rahman et al., 2017). Because it considers the different types of knowledge needed and how teachers can cultivate this knowledge, the TPACK framework is a productive way to evaluate how teachers could integrate educational technology into the classroom (Koh et al., 2015). It can also serve as a measurement of the instructor's knowledge, which can significantly impact both the training and professional development of teachers at all levels of experience (Koehler et al., 2013).

The TPACK framework is useful because it successfully elucidates the types of knowledge required to integrate technology into the classroom. Teachers need not be familiar with the entire TPACK framework to benefit from it (Stover & Veres, 2013). Instead, instructional practices are best shaped by teachers using content-driven, pedagogically sound, and technologically forward-thinking knowledge (Lee & Kim, 2014). The technological application must not detract from teaching and learning objectives due to taxing features, such as the excessive time needed for teachers and

students to learn the new technology, excessive costs associated with the application, or compatibility issues. The TPACK framework provides the flexibility to avoid these issues using technology designed for the teacher's instruction.

TPACK and Context

As described by its developers (e.g., Koehler & Mishra, 2008; Mishra & Koehler, 2006) and others (e.g., Angeli & Valanides, 2009; Kelly, 2008, 2010; Porras-Hernandez & Salinas-Amescua, 2013; Reeve, 2008), context is central to the TPACK framework. However, the nature of the context of teachers' TPACK has been theorized in different ways and with different meanings (Rosenberg & Koehler, 2014, p. X). Instructors must teach technology in contexts that honor the rich connections between technology, the subject matter (content), and the means of teaching it (the pedagogy; Koehler & Mishra, p. 95).

On the TPACK model diagram, the outer-dotted circle is labeled "contexts" (see Figure 1). By simultaneously integrating knowledge of technology, pedagogy, content, and the contexts within which they function, expert teachers can incorporate the TPACK framework any time that they teach (Koehler & Mishra, 2005, p. 5). Authors have argued that learning environments that allow students and teachers to explore technologies concerning the subject matter in authentic contexts are often most useful (Mishra & Koehler, 2006, p. 1045).

Educators build on their expertise and general knowledge of technology to develop technology in learning contexts; they then use it to identify and develop specific content that benefits from teaching with technology strategies (see Angeli & Valanides, 2009). By better describing the types of knowledge that teachers need (in the form of

content, pedagogy, technology, contexts, and their interactions), these better positions educator to understand the variance in technology integration levels (Koehler & Mishra, 2005, p. 6).

Technology in Higher Education

Technology is considered a vital aspect of learning in higher education globally. It has shifted how teachers engage with learners and how they provide instruction. With the implementation of technology in higher learning institutions, teachers have realized that activity-based, rather than lecture-based, learning enhances student creativity by allowing students to use technology to develop and strengthen their ideas. Since the turn of the 21st century, new and rapidly improving technologies have been transforming higher education (Englund et al., 2017; Gachago et al., 2013).

Technology can revolutionize the traditional teaching and learning process; it can eliminate the barriers to education imposed by space and time and dramatically expand access to lifelong learning. Students must no longer meet in the same place or time to learn together from an instructor. Modern technologies can change the conception of a higher education institution. With ongoing technological advancements, teachers should carefully use, evaluate, and adopt technology changes to track their impacts (McKnight et al., 2016).

Instructors use technology in higher education as a supportive tool to promote teaching and learning. It can comprise digital learning materials or accompany the learner in acquiring knowledge in various subject areas. Furthermore, technology can enhance the skills acquisition process by promoting critical thinking and civic engagement and empowering individuals to seize opportunities and exploit their potential.

Teachers can use technology to support learners in their knowledge-building process and acquiring critical thinking skills. Teachers can use technology as a tool to facilitate students' higher-order thinking activities. It permeates almost all departments within higher education institutions and changes how educators teach and students learn. With technology, learners can access different sources of knowledge by themselves. This trend deviates from the traditional approach of depending almost entirely on teachers. Today, education has adopted a new dimension that requires new approaches to learning and teaching.

A significant factor in the successful implementation of technology in higher education is the teachers' competence, who must know why, when, and how best to implement educational technologies (Englund et al., 2017). Much of the research on increasing technology in schools has focused on training those preparing to become educators. Despite the increased use of technology in higher education, studies have shown that classroom technology has not met expectations (Reid, 2014). Challenges abound in improving classroom technology, ranging from a lack of professional development to confusing standard measurements (e.g., integration and what it looks like) to faculty apathy toward the attempts to use these technologies. The availability of computers and other instructional tools has not resulted in the technological integration predicted (Dolan, 2015; Schnellert & Keengwe, 2012).

Challenges of Using Technology in Higher Education

Although technology use in higher education is generally considered a desirable practice, educators face significant personal and institutional challenges in effectively using technology to promote teaching and learning. First, older educators face a

generational hurdle that makes IT and professional development courses for faculty quite challenging. Technological integration rests on knowledge of technology and pedagogical and content awareness (Hastings, 2009). Educators may experience a self-perceived lack of competency, knowledge, and self-confidence with technology (Kim et al., 2013). Aldunate and Nussbaum (2013) demonstrated that teachers might believe they are not computer smart, tech-savvy, or technologically capable. Teachers can also be unsure of how to use programs or resolve issues that arise while using them (Kurt, 2017). These types of problems are the most common challenges that limit the effective use of technology.

The second challenge is associated with anxiety and the fear that technology can be arduous to integrate into teaching practices. Moreover, teachers may fear appearing ignorant or incompetent in front of students (Inan & Lowther, 2010). Another significant challenge is the learners' lack of competence in using technology, even if they are considered digital natives. Students in higher education may not be knowledgeable or competent in using instructional technologies to enhance learning. Limited exposure to technology could affect their ability to achieve. More effort and resources are required to support learners in using technologies meaningfully. A study by Teo (2011) revealed that educators are concerned about appearing uneducated in front of students or become frustrated when they can use the technology in the classroom better than the teacher (Bennett & Manton, 2010).

Teachers have often expressed concern about overloaded curricula, thus failing to meet standardized testing benchmarks (Hsu, 2010). Educators who do not use technology may frequently encounter challenges or become frustrated due to the lack of time to

create additional technology integration lessons. They may not have adequate time for more or new activities to be added to their existing curriculum because they are overwhelmed with meeting standardized test requirements.

The fundamental institutional challenge associated with the use of technology in higher education is the administration's lack of support in facilitating technology integration and implementation. At times, teachers may believe they do not receive adequate administrative or technical support from the higher education institutions at which they work. The administration's limited recognition of technology integration's importance can be challenging and lack technology specialists or coaches on campuses.

Apart from the staff involved in operating and maintaining the necessary infrastructure to support technology, most higher education institutions do not require employee technology specialists to work one-on-one or in small groups with teachers on technology integration. This lack of interaction makes it difficult for educators to resolve technical issues with instruction technologies.

Researchers have been unable to determine the best strategy for institutions to address these challenges and benefit from their financial investments in technology. Although findings diverge, the consensus is that educational technology comprises technology, process, administration, environment, and faculty.

Educational Technology

The concept of educational technology is a fundamental basis for promoting improved teaching and learning; it involves studying and practicing teaching and learning to improve performance using appropriate technologies (Rosenberg & Koehler, 2014, p. 445). It is a goal-oriented, problem-solving approach that employs tools and techniques

designed to improve efficiency. McCombs (2005) argued that educational technology focuses on education and includes the process, individuals, and environment involved in instructional tools. The introduction of the TPACK model has profoundly impacted the field of educational technology (Cox & Graham, 2009, p. 60). This area's overarching issue is that little is known about how instructors can integrate digital educational technology into instructional planning (Tubin & Edri, 2004).

In addition, McCombs (2005) argued that all learning must be learner-focused and provide clear examples by focusing on the student rather than the technology. According to the American Psychological Association, environmental factors, such as culture, context, and technology, can influence understanding (McCombs, 2005). Educators who can transform learning must shift from inhabiting the traditional teacher role to experts in pedagogical design and technology. Uniquely positioned, drama educators can engage students in a culturally framed exploration that implements technology to create exciting new learning experiences (Roberts & Barber, 2016, p. 345).

Educational technology is a field of study that investigates the process of analyzing, designing, developing, implementing, and evaluating the instructional environment and learning materials to improve teaching and learning (Kurt, 2017). Educators have more flexible access to content, greater instructional material availability, cost-efficient dissemination of instructional content, and an increased ability to instruct more learners while maintaining quality learning outcomes with IT integration into curricula. (Jethro et al., 2012). Without teachers who can integrate technology into their practices, students' exposure to technology remains limited and inequitable (Gorder, 2008). In 1999, when the United States experienced unprecedented growth in information

technologies, the U.S. Department of Education introduced the Preparing Tomorrow's Teacher to Use Technology initiative. Schools, businesses, and governmental institutions engaged in immense efforts to upgrade and connect their computer systems to avert potential Y2K problems (Aust et al., 2005).

Stakeholders recognized the potential of new digital technologies to transform schools and universities through this initiative (CEO Forum, 2000). The use of IT in education rapidly increased in various fields, including theater education. IT can help students learn content, improve their academic vocabulary, build background knowledge, and increase their communication skills. The social aspect of learning is supported as students work together on technology-based assignments and interactive activities (Campbell & Rossi, 2012).

Technology Integration in Education

Technology integration refers to incorporating technology, including computers and specialized software, network-based communication systems, and other equipment and infrastructure (Gachago et al., 2013). It also includes technology practices, such as collaborative work and communication, internet-based research, remote access to instrumentation, network-based transmission, and data retrieval. Studies describe technology integration as the sustained and meaningful use of technology applications to facilitate classroom instruction and learning (Abbitt, 2011). By definition, technology integration involves adopting and using technology to promote educational activities (teaching and learning). Technology integration is a significant concept that transcends acquiring and utilizing technology in the classroom and addresses all the processes of using technology in teaching and learning. The goal is to facilitate the learning process or

make learning meaningful and manageable (Kim et al., 2013). Higher education institutions are currently in a phase of technology integration reform, focusing on technology fluency. Educators can select technology tools to help facilitate teaching and ensure that students can obtain learning information promptly.

The direct integration of technology in teaching requires that technology be practically invisible while creating a visible impact on students' performance and productivity. Integrating technology into current curricula can reform established practices for developing and improving students' learning skills. Available evidence indicates that incorporating technology in students' firsthand users promotes their learning and critical thinking engagement.

Studies have shown that educational technologies can support teaching practices (Harris et al., 2011; Sang et al., 2010). Educational technologies should be flexible and incorporate the three knowledge areas: content, pedagogy, and technology to maximize effectiveness. Due to educational technologies' demands to support teaching and learning, teachers must know content, pedagogy, technology, and their interactions to successfully integrate educational technologies into the classroom (Abbitt, 2011). The concept of technology integration is not straightforward or easy to implement; in different environments, teachers may perceive it differently. Various aspects must be made clear and elaborated upon when examining technology integration in education. For instance, there is a distinction between acquiring technology and integrating technology. An institution may be well-equipped technologically but ineffective in using that technology. The process of installing technology is insufficient; rather, the basis lies in the use of technology. According to Fulton et al. (2004), technologies provide powerful tools to

support teaching and learning. However, their value and benefit depend on how effective teachers use the tools to help instruction.

Earle (2002) argued that integration is not the mere placement and use of hardware in the classroom; rather, technology must be pedagogically sound within the learning and teaching environments. The author further noted that education must transcend information retrieval and extend to problem-solving, allowing for new learning experiences that would not be possible without technology. To support Earle's (2002) findings, Kerr (2005) argued that although technology integration can bring significant benefits in enhancing teaching and learning, various shortcomings limit these goals. The issues highlighted by Kerr (2005) include the ease or difficulty of using hardware; how appropriately learning institutions support the integration of technology; how well-organized the circumstances are surrounding technology implementation and software designed; how well prepared and confident educators are in their ability to work using technology in their teaching environment and assess student learning; and how willing the general community is to accept the new technological models of learning and assessment. Such issues have sparked skepticism toward the concept of technology integration in higher education. Studies have shown that technology integration in education faces myriad challenges, such as that some educators are skeptical about whether adoption and integration will yield the desired goals.

Technology integration has been conducted hurriedly in some institutions without considering other factors that influence these technologies' success. Research has shown that technology integration's success depends on hardware and software and designing

effective instruction that appropriately incorporates computer technology and other media.

Higher learning institutions must have strategic planning processes for administrative and pedagogical functions to address the above-stated challenges. The acquisition and integration of technology into a school system do not guarantee success or facilitate achieving the desired goals. Instead, the key to achieving successful outcomes is the appropriate integration of technology into curricula.

Factors that Promote Effective Technology Integration

The effective integration of technology in curricula is a process that requires diverse factors, including educators, students, learning institutions, and parents. Thus, it is crucial that educators clearly understand their environment and other vital components that may enhance integration success. The role played by teachers and leadership in learning institutions is essential for the effective integration of technology. The factors considered by educators and leadership range from the institution's educational philosophy in which integration occurs to the psychological inclination of the process itself and the model of technology integration. The model indicates the components, steps, processes, and their relationship that reflect technology integration.

Bettis (1998) identified the various factors teachers should consider integrating technology into their teaching practices. To begin, teachers should know and respect the social and economic contexts within which to introduce technology. The social context involves knowing what learners, their parents, and society need from technology. The economic context consists of understanding the capability of investing in technology.

Schools should operate with costs proportional to their capacity. In other words, schools should consider the cost of technology and its operations.

Second, teachers should balance their priorities properly by understanding the concepts taught and teaching and evaluating them. Bettis (1998) observed that identifying the most appropriate technology for integration is essential to enhancing teaching and learning success. Third, it is necessary to establish leadership in technology integration contexts. Educators should stay close to leaders (including management and other relevant administrators) to communicate their technology integration needs efficiently. Integration also requires a committed leadership that understands the importance of technology integration.

Teachers must understand that people respond differently to the technology they plan to integrate into their practices, and some people resist change. Nonetheless, teachers must be optimistic that the integration of technologies will succeed and produce the intended outcomes. Studies have shown that educational institutions should have proper technology plans and conduct curriculum reviews to ensure that the technology fits the curricula' needs, particularly regarding addressing instruction needs and ensuring that staff possesses the necessary skills to use it. It is vital to tap into institutional resources to provide sustainable funding for technology integration.

According to Barron et al. (2001), the effective integration and use of technology require new understandings, approaches, and professional growth forms. Educators must determine their instructional goals and objectives and then locate the technology that can support them. This determination by educators requires choosing the technology to fit the curriculum.

Teachers should undertake in-service training sessions to address the gaps associated with emerging technologies. These sessions should include, among other things, lessons on integration strategies. Moreover, administrators should provide teachers with follow-up support and coaching. Some have argued that educators should be supported after the in-service training to produce the desired changes in implementing technology in the classroom. Ongoing support has the potential to produce desirable results as a model of professional development.

Furthermore, learners must be involved in improving their understandings of how the technology works. This involvement helps ensure that students are comfortable using the technology and improving the learning and understanding of the concepts taught. Educators should frequently monitor technology to ensure that technology is providing appropriate materials for students. Moreover, teachers must monitor the levels of understanding of learners to identify areas of weakness. With this information, teachers can customize instruction to address students' learning needs.

Professional Development Integration of Instructional Technology into Theater

The literature indicates that TPACK has been used extensively by pre-service and in-service teachers in K–12 learning environments. The focus of professional development (PD) for educators over the past two decades has been how to enhance in-service and pre-service teachers' integration of technology to impact student learning in K–12 schools (Angeli & Valanides, 2009; Harris et al., 2009; Jaipal & Figg, 2010; Niess, 2005). A gap in the literature exists on TPACK for PD in higher education by administrators and faculty. Research shows that higher education faculty do not commonly adopt new technology within instruction (Johnson et al., 2013; Moser, 2007).

Integrating IT into introductory theater courses can significantly enhance the experience due to blended learning.

According to Koehler and Mishra (2009), technology use in the classroom is context-based. It should depend on the subject matter, grade level, student background, and types of computers and software programs available (Rosenberg & Koehler, 2014). Some barriers to faculty adoption of technology-enhanced teaching are the time needed to learn the technology, technical competence with the tools, belief that technology may not be indispensable for learning, reliability of the technology, and insufficient institutional support (Butler & Sellborn, 2002; Johnson et al., 2013; Otero et al., 2005).

The literature suggests that PD opportunities are successful when they involve the collective participation of teachers from the same school or a group of schools, have a high probability of affecting student learning, and are facilitated through study groups, mentoring, and coaching (Darling-Hammond et al., 2009; Figg & Jaipal, 2015; Hargreaves, 2003; Hung & Yeh, 2013; Ingvarson et al., 2005; Joyce & Showers, 2002). Before introducing and integrating technology, teachers must undergo PD. Traditionally, PD has involved giving professors sabbatical leave to provide adequate time to improve their knowledge and understanding of new technology. The starting point for successful PD lies in conducting a needs assessment to identify varied needs using the organization's level, learning context, and individual. This needs assessment provides the means to identify the strategy and action required to improve current and future practice, which is a primary goal of effective technology integration. The PD of teachers should be subject-specific and lead to how technology can support various modes of inquiry.

An important aspect of PD is developing effective relationships with other teachers to promote the effective integration and use of technology in theater education. Teachers can learn how to implement technology integration and encourage changes in students' beliefs, behaviors, and skill levels. Teachers must be able to understand how technology can transform theater education.

Recognizing PD as an individual, ongoing process is imperative for success. Encouraging collegiality and professional respect within the profession is a characteristic feature of best practices. PD opportunities allow professors to receive ongoing support and opportunities for feedback. These are essential factors for the successful integration of technology in their teaching practice. Studies have shown that IT PD allows teachers to acquire the necessary skills to embed in their teaching practices.

Summary

This literature review indicates that there is limited existing scholarship about integrating technology into theater courses using TPACK. However, the literature suggests that TPACK is frequently used to teach music within the humanities. Macrides and Angeli (2018), for example, explored the use of TPACK for music teaching and learning. The authors examined a set of music-specific design principles based on the TPACK framework while identifying the interrelations among musical content, emotions, and content (Macrides & Angeli, 2018, p. 166). The TPACK framework offers an approach to PD that addresses a lack of individuals with the dispositions needed to integrate technology (Koehler et al., 2014). Rather than focusing on top-down designs that use technology as the driver, TPACK focuses on the intersection of technological

skills, pedagogy, content, and knowledge delivery that educators need to foster to become transformative educational leaders.

Teachers lack the knowledge and capacity required to integrate technology into their theater courses. Many PD programs focus on teaching faculty about technology applications rather than showing them how to approach technology integration in ways that are specific to their disciplines (Dysart & Weckerle, 2015). This self-study intended to analyze the challenges that higher education faculty members incorporate technology into theater courses face. The setting for this study was a university. This study's findings will help theater instructors understand the relationship between instructional content, learning activities, assessment, and effective technology integration.

Chapter 3

Method

This self-study research design used a practitioner-oriented approach espoused by the "Carnegie project on the education doctorate" (Perry, 2015). Characteristics of a self-study include the involvement of critical friends, the use of theory to attain broader perspectives on practice, and methodological rigor (White & Jarvis, 2019, p. 1). The basis for this practitioner-oriented approach was my practice teaching introductory theater online, using blended learning, and teaching using face-to-face instruction in traditional learning environments.

Self-study Research

Self-study methodology continues to grow as scores of teacher educators find it useful as a systematic approach for examining and improving their practice. However, the popularity of self-study should not be mistaken to mean that it is a simple or straightforward way to conduct research (Ritter, 2017, pp.20-21). Self-study primarily focuses on one's practice and one's role in it and on in-depth examination to identify motivations, beliefs, and concerns around an aspect of one's teaching practice (White & Jarvis, 2019). These factors directly influence the outgrowth, process, and focus of self-study research; teacher inquiry, reflective practice, and action research (Samaras & Freese, 2009).

Teacher inquiry, which emerged in the late 1980s as professors began to explore the teaching-learning process, refers to a generally agreed-upon set of insider research practices that encourage teachers to make a close, decisive examination of their teaching and their students' academic and social development (Clarke & Erickson, 2003). The

movement to develop reflective practitioners led to a body of research focusing on teachers as researchers of their own practice (Cochran-Smith & Lytle, 1993). Action research is a systematic inquiry that the participants undertake that is collective, collaborative, self-reflective, and essential. Action research intends to understand the practice and articulate a rationale or philosophy of training to improve that practice (Johnston, 1994).

The research genre of self-study has roots in teacher inquiry, reflective practice, and action research. A self-study research design evolves from one of three distinct methodologies: narrative, autoethnography, or self-study. A *narrative* is an examination of a story of self, while an *autoethnography* examines oneself within a broader context. Finally, *self-study* is an examination of the self in action, usually within an educational context (Hamilton et al., 2008).

My research adopted the self-study methodology developed by Vicki LaBoskey (as cited in Hamilton et al., 2008), who outlined five elements of self-study: (a) it is self-initiated and focused; (b) it is intended to improve; (c) it is interactive; (d) it includes multiple, primarily qualitative, methods; and (e) it defines validity as a process based on trustworthiness.

Research Context and Methods

The locale for this self-study was a traditional higher education setting. The study utilized the accepted educational practices, instructional strategies, instructional techniques, and methods that I have employed for the past 18 years while teaching an undergraduate introductory theater course that integrates IT. I collected data over one year in my introductory theater courses, using TPACK as a lens for thinking about my

practice. The data collected for this qualitative self-study include wide-ranging sources, such as a personal narrative, a self-reporting TPACK survey, photograph analysis conducted with two critical friends, and various teaching artifacts.

The Qualitative Paradigm

A qualitative method was well-suited for this study. A qualitative self-study was perfectly suited for my research because it afforded a crucial opportunity to explore, according to RQ1, how I utilize IT in theater education for over a decade. Qualitative research can get closer to the individual's perspective and experience than other methods (Myers & Barnes, 2013, p.50). My IT use included a surprising inventory of hardware and software mastered over a considerable amount of time throughout my graduate educational journey at two institutions and my teaching career at three universities. Self-study served as an indispensable method for addressing RQ2, which examined how TPACK informed my teaching practices in new and enlightening ways. This exploration introduced the scholarly practitioner and theater educator I did not realize existed within me.

The critical research paradigms that have directly influenced the outgrowth, process, and focus of the self-study of teaching include teacher inquiry, reflective practice, and action research (Samaras & Freese, 2009). The data collected included weekly reflections generated during three semesters that resulted in an introspective purview of the intersection of CK, PK, and TK directly connected to RQ3. Reflective practice is most applicable to this study's research paradigm because, in reflective practice, practitioners engage in a continuous cycle of self-observation and self-

evaluation to understand their actions and the reactions they elicit from both themselves and learners (Florez, 2001).

Research Design

This research design comprises a qualitative self-study. Self-study is a genre of research concerned with examining the educator's role within a professional practice setting. This self-study method aligned with my research design. In teacher education, higher education faculty use self-study as a form of practitioner research to study their teaching and their students' learning (Berry & Hamilton, 2013). Clarke and Erickson (2003) argued, "For teaching to occur, there must be a way for an educator to know, recognize, explore, and act upon his or her practice" (p. 59). Implementing a varied approach to integrating IT in this study allowed me to demonstrate specific teaching theater applications using TPACK. Self-study requires that personal insights be documented, shared, and critiqued to validate the researcher's interpretations (Loughran & Northfield, 1998).

My self-study embraced critical collaborative inquiry by incorporating the insights of a few "critical friends," who are trusted colleagues who provide support and validation of one's research to gain new perspectives in understanding and reframing one's interpretations (Samaras, 2009). Collaborative inquiry created a unique avenue for unapologetic feedback and pointed constructive criticism from trusted colleagues examining my teaching practice without reservations. I worked with two critical friends who used technology to teach face-to-face and online undergraduate courses. Dr. Angela Whitney used IT in health science; Dr. Mason Glenn used IT in music. Both were faculty members at Lock Haven University (LHU). They evaluated my teaching at various times

during my career at LHU as peer evaluators measuring criteria such as my proficiency in the subject matter, presentation of lesson objectives, student engagement, and student on-task behaviors. I investigated my research questions from more than one perspective and used multiple data sources, collection methods, and different locations to ensure triangulation, which is the practice of using various data sources or approaches to analyzing data to enhance the credibility of a research study (Salkind, 2010).

The Setting

The university setting of this study was an essential part of the research. A detailed description of the program's environment and the introductory-level theater course I taught follows. LHU, 1 of 14 Pennsylvania State System schools, is in Clinton County in central Pennsylvania. As of this writing, this state university had 3,162 students enrolled on the main campus in Lock Haven, Pennsylvania. There were 2,539 undergraduate and 410 graduate students enrolled. Approximately 213 students attended the LHU branch campus, located one hour west in Clearfield, Pennsylvania. LHU was 39% male and 61% female. Ethnically, the student population was 7% African American, 3% Hispanic, 2% Asian, 1% international, and 84% White. LHU had 489 full-time employees, including 209 full-time faculty members, with a student-faculty ratio of 14:1. The university had virtualized computer labs, SMART Boards, and wireless access in classrooms. The theater program was in the Department of Visual and Performing Arts, along with music and art. There were four music and four art faculty members in my department. For the previous 18 years, I taught one or more sections of an introductory-level theater course, THEA110, in the LHU course catalog. THEA110 introduces learners to the theater. As part of the course, students learn definitions and analytical techniques

related to theatrical art and plays. They also explore the relationships among theater, culture, and theater practitioners.

Researcher's Positionality

I am Ramona Broomer, assistant professor of theater at LHU. My area of specialization is costume design. For the past 18 years, I have taught courses that focus on costume design, stage makeup, dramatic literature, and women in theater. I also teach THEA110, a general education introductory course for majors and non-majors, which is the course in which I primarily use TPACK. However, all of my courses incorporate blended learning. Blended learning is used to describe the use of LMSs as a complement to campus education and the use of digital technology (Hrastinski, 2019). For example, I use Desire2Learn (D2L), a course-management system, as a repository for documents and grading. I conducted a self-study of my use of TPACK in my introductory theater course. My interest in integrating technology into theater courses emerged from workshops offered on campus at LHU. The purpose of these workshops was to demonstrate how to use classroom technology.

I realized that my students were more familiar with technical aspects than I was and felt the need to seek additional instruction. After completing several workshops at LHU, I enrolled and graduated with an MS in IT from Bloomsburg University. While completing the coursework for this degree, I immediately used the knowledge I acquired by studying IT in my introductory theater course. Obtaining this MS allowed me to have a new level of communication with my students. My employer's workshops at LHU strengthened my ability to use classroom technology tools, such as a document camera, projector and projection screen, SMART Board, and Polycom video room system for

synchronous distance instruction. As a doctoral student at Duquesne University (DU), I have learned how to use discipline-specific IT for K–12 and in higher education.

I worked for many years in professional theater as a freelance costumer before becoming a university professor. My years of professional and academic theater experience have strengthened this study. The experience of combining my practical knowledge with the use of TPACK and the discipline of theater has been gratifying. I want to share my expertise because TPACK is not widely used to teach theater.

Data Collection Process

As the primary participant in this study, I taught introductory theater in face-to-face and online settings using TPACK. I collected and analyzed data from various sources, including a personal narrative, photo analysis, reflection, a self-reporting survey, and teaching artifacts.

I collected data over one year in my introductory theater courses during two fall semesters at LHU and one section of THEA110 during the summer session. The summer session course was a face-to-face section that ran five weeks (see Appendix D). Next, I collected data from two fall sections of THEA110 that ran 15 weeks each (Appendix E). One section was face-to-face, and the other section was a 50% hybrid course. In a 50% hybrid course at LHU, my employer, the class met 7.5 weeks in a fully online learning environment. For the remaining 7.5 weeks, the course met face-to-face in a classroom setting on campus (see Table 2).

The data collection process included an analysis of several primary data sources. Primary data refer to original data sources that a researcher collects directly for a specific research purpose or project, amassed in several ways; the most common techniques are

self-administered surveys, interviews, field observations, and experiments (Salkind, 2010). For this self-study, I analyzed the following data sources.

Personal narrative refers to alternative forms of writing and reporting. Examples include autoethnography, performative writing, layered accounts, and storytelling. A personal narrative is a way to create multiple, tiered accounts of a research study, thereby providing the opportunity to develop new and provocative claims in a compelling manner (Chang, 2016). This study's personal narrative contained information about my life and practice to provide a retrospective account of my evolution as a lifelong learner and teacher. To understand other people's experiences, "We need to understand each [person's] personal practical knowledge his/her embodied, narrative, moral, emotional, and relational knowledge as expressed in practice. Additionally, we need to attend to nested milieus, in- and out-of-classroom locations, and, of course, diverse subject matters" (Craig et al., 2018, p. 331).

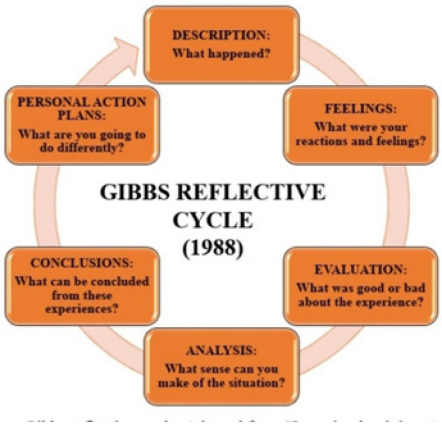
Reflection is vital in an educator's life; it is the key to learning and occurs when one creates meaning from past events and uses this to shape future experiences (Castleberry et al., 2016). Loughran and Northfield (1998) clarified the relationship between reflection and self-study: While reflection is a personal process of thinking, refining, reframing, and developing actions, self-study makes these processes public. Self-study can be an extension of one's reflection on one's practice, with aspirations that go beyond PD and facilitate more robust communication and consideration of ideas: In other words, it is the generation and transmission of new knowledge and understanding (Clarke & Erickson, 2007).

The purpose of reflective writing in this study was to memorialize, analyze, and share the experience of adopting and mastering IT integration in theater courses. Based on the questions in Figure 2, I wrote reflectively about my work as a theater instructor using IT with my students. I discuss the misperceptions of teaching theater with technology in my reflective writing. The purposes of the reflection are to (a) capture my experiences teaching an introductory theater course to undergraduates, (b) explore ways to improve my techniques for reaching and engaging students each week with face-to-face and online content, and (c) decisively examine my weekly practice as an instructor using the 10 guided questions outlined below. A crucial purpose of a personal reflection is to uncover and challenge hegemonic assumptions that one may believe to be in one's best interest but that work against one in the long term (Brookfield, 2017).

I developed the 10 questions in Figure 2 from Gibbs (1988) reflective, a six-stage approach that describes the experience and continues to conclusions and considerations for future events. These questions encouraged me to reflect on my thoughts and feelings as an educator while generating data related to my research questions. Gibbs model is a useful tool to help researchers reflect. It is a beneficial model if the researcher is new to reflection, as it is broken down into clearly defined sections (Gibbs, 1988).

Figure 2

Gibbs Reflective Cycle



- What happened?
- How do I feel before, during, and after my instruction?
- What insights have I gained about my students and myself from my instruction?
- What helped or hindered my students' learning?
- What worked well?
- What did not work well?
- What did I learn from what worked well?
- What did I learn from what did not work well?
- What action will I take because of this experience?
- When will I take action to do the same or differently because of this experience?

When teachers critically reflect upon their practices, they can make sense of the complexities of teaching and participate consciously and creatively in their growth and development (Samaras & Freese, 2006).

A self-reporting survey is a method of data collection. I used the TPACK questionnaire developed and validated by Yurdakul et al. (2012). During the data

collection period, I administered this self-reporting survey before and after each semester. It intended to evaluate my levels of instruction when teaching introductory theater with TPACK.

Photo analysis is a self-study method in which I collaborated with a critical friend on the LHU main and Clearfield campuses; my critical friend and I shared and discussed my adjectives, reflection, and interpretation of the photos (Samaras & Freese, 2006). I selected two colleagues because one served as a critical friend on each campus where I taught (LHU Main and LHU Clearfield).

The purpose of the photo analysis was to discover what photographs could teach about my instructional practice. I wrote three adjectives to describe myself as a teacher: fair, firm, and friendly. Next, I wrote reflective responses to these three questions: (a) How do I see myself? (b) How would I describe myself as a teacher? (c) How do I think my students see me? I then took pictures of myself using my cell phone attached to a tripod in my classroom. I held a thumb-size remote in the palm of my hand that triggered multiple images with one click. I selected six photographs that featured me teaching in different classroom environments on the LHU main and Clearfield campuses during the summer and fall semesters. My selection included two images from Summer Session II, two from the fall 2019 semester on the LHU main campus, and two from the fall 2019 LHU Clearfield campus (see Table 2).

Table 2

Schedule of Captured Photos

	Photo 1	Photo 2	Photo 3	Photo 4	Photo 5	Photo 6
Semester	Summer 2019	Summer 2019	Fall 2019	Fall 2019	Fall 2019	Fall 2019
Campus	LHU Main	LHU Main	LHU Main	LHU Main	LHU Clearfield	LHU Clearfield
Room	Sloan Mainstage	Sloan 121 Band room	Price Auditorium	Sloan 321	Clearfield Bldg. 2 A131	Clearfield Bldg. 2 A131

Photography promotes reflection on and dialogue about the images capturing my teaching moments (Samaras & Freese, 2006).

Teaching artifacts are six items used in my instruction, as follows: (a) a 2:26 minute video welcoming students to my introductory theater course; (b) a short video explaining the requirements for a course project on exploring regional theaters; (c) a pre-test from this class; (d) a course assignment based on a one-act play; (e) a student profile assignment; (f) a theater trivia based on the theatrical term *catwalk* with images. In addition to conducting the photo analysis, my critical friends evaluated the 1:10 minute video in which I welcome students to my introductory theater course. Each of my critical friends independently viewed the brief video and provided written feedback on the following two questions:

- What is your initial impression of my demeanor in the video?
- What is your reaction to what I am saying in this video?

My critical friends each provided insightful, constructive criticism of the videos. These videos were less than three minutes but conveyed much information about my teaching practice and presence from their perspectives. Videos can present phenomena in ways that have an immediacy that is tremendously valuable (Schoenfeld, 2017).

I now describe the plan I used to interpret and analyze the data I collected for this self-study. I explain how I planned to analyze the data and how it connected to my overall research design (Durdella, 2017).

Table 3

Data Collection Instruments and Procedures

		Five-week Summer Semester Introductory Theater Course (One Section)			Fifteen-week Fall Semester Introductory Theater Course (Two Sections)			
Data instruments	Number of instruments	Procedures	June	July	Aug	Sept	Oct	Nov
Personal narrative	One narrative	Written	Narrative writing	Narrative writing				
Photo analysis	Six photos	Selected two photos from each semester		Capture photographs	Capture photographs		Capture photographs	Capture photographs
Reflection	80 reflections	Conducted after each class during 5-wk and 15-wk semesters	Reflective Writing	Reflective writing	Reflective writing	Reflective writing	Reflective writing	Reflective writing
Self-reporting survey	Four results	Administered before and after 5-wk and 15-wk. semesters	Administer TPACK survey	Administer TPACK survey	Administer TPACK survey			Administer TPACK survey
Teaching artifacts	Six artifacts	Collected monthly	Teaching artifacts	Teaching artifacts	Teaching artifacts	Teaching artifacts	Teaching artifacts	Teaching artifacts

Data Analysis

This data analysis plan was completed over 10 weeks by analyzing the 5 sources' of collected items (see Table 3). As the primary participant in this study, I analyzed data from a personal narrative, reflection, a self-reporting survey, photograph analysis conducted with two critical friends, and six teaching artifacts, including a brief video evaluated by these two friends. I collected data from teaching introductory theater in face-to-face, blended, and online settings using TPACK during three semesters at LHU. I systematically analyzed 69 artifacts using Atlas.ti, which generated 349 codes and 70 memos (see Figure 3). Atlas.ti is computer-assisted qualitative data analysis software (CAQDAS). All the items were analyzed using Atlas.ti, which allows data deconstructed,

reorganized, and regrouped according to themes, categories, and areas of interest (e.g., primary documents). Codes, memos, and quotations result in inconsistency in data handling (Ngalande & Mkwinda, 2014).

Figure 3

Word Cloud Created from Codes Using Atlas.ti

I conducted three coding cycles using Atlas.ti: the first resulted in 223 codes and 50 memos, and the second in 126 codes and 20 memos. The third cycle of coding generated categories and themes.

An advantage of using CAQDAS is its ability to enhance a study (Durdella, 2017). This self-study required research software with robust tools and the capacity to analyze qualitative materials from various multimedia and text-based data sources. Atlas.ti, a form of CAQDAS, efficiently stores, organizes, manages, and reconfigures data to enable human analytic reflection (Saldaña, 2015). I provided a retrospective account of approximately 18 years of professional experience using IT in my practice, including my early adopter years.

As a theater instructor in higher education, my practice is informed by TPACK as the theoretical framework to answer these research questions, which guided my scholarly inquiry process:

RQ1: How do I utilize IT in theater education?

RQ2: How does TPACK as a theoretical framework inform an understanding of my teaching practices?

RQ3: How does TPACK as a theoretical framework challenge my perspectives and experiences regarding the intersection of three primary forms of knowledge: CK, PK, and TK?

These research questions focused on three primary areas: a) my instructional practice, b) my PD and experience related to technology integration in the liberal arts, and c) the use of TPACK in theater education from a scholarly-practitioner perspective.

First, I described each of the three cycles of coding using Atlas.ti. Next, I interpreted the codes, categories, and themes from the data related to RQ1, RQ2, and RQ3. In the first cycle, I used descriptive coding as my coding strategy, which is appropriate for studies with a wide variety of data forms (e.g., interview transcripts, field notes, journals, documents, diaries, correspondence, artifacts, videos; samaras, 2015). Descriptive coding summarizes the basic topic of a passage of qualitative data using a word or noun (Saldaña, 2015).

During the first cycle of coding, I summarized the primary phases from passages in the 69 artifacts. Atlas.ti was an efficient way to compile and search through my data. Using CAQDAS helped me concentrate and remain focused while coding when memos

emerged. I based these memos on insights or ideas that arose after coding an artifact. Memos are sites of conversation with oneself about the data (Clarke, 2005).

> I copied content from the previous course shell in Desire2Learn, the new semester's course-management system. It was crucial to comb through the content to ensure the links function; there were no typos, obsolete information, or incorrect email/internet addresses. I also changed colors, fonts, tables, and images to avoid duplicating the same appearance, primarily since I taught the same course for three different semesters. (D115 reflection 22 memo)

During this first cycle of coding, I identified 223 codes with 50 memos based on this initial exploration of 69 artifacts (i.e., data sources, including documents, videos, and photographs). At the end of the first cycle of coding, I selected the "Report" option in Atlas.ti; then, I created two separate reports based on all the codes and memos. I exported both reports as text documents that were extremely easy to review in this format. The coding process was labor-intensive but extremely rewarding. I felt like I was reading a personal journal of my experience as an instructor while reviewing the generated code and memo reports. This first cycle of coding revealed how often I encountered anxiousness and how labor-intensive teaching theater using IT was during these three semesters:

> I felt a little anxious because I wanted to make sure that everyone was clear on accessing the online midterm and accessing their electronic textbook while taking the test using Lockdown Browser in D2L. (Desire2Learn) (Reflection 99:35)

I felt more confident when conducting the second coding cycle after analyzing the wide range of results from the first cycle. I also felt an increased comfort level using Atlas.ti for coding and managing the data.

Next, during the second cycle of coding, I sorted the 349 codes and identified the categories, actions, analysis, assessment, curriculum, locations, perceptions, preparation, resources, students, and time. I developed these categories from a post-coding focusing strategy called the "top 10" list. This strategy involves extracting, arranging, and reflecting on no more than 10 quotes or passages from one's field notes, interview transcripts, documents, analytic memos, or other data that strike one as the most vivid and representational of one's study (Saldaña, 2015).

To help distinguish coding cycle 2 and the 10 categories, I assigned a unique color to each using Atlas.ti (see Table 4). Table 4 provides (a) the name of each category, (b) a brief definition, (c) a select quote from the data, and (d) the unique color assigned to each category from the second coding cycle.

Table 4

Second Coding Cycle—Categories, Codes, and Colors

Categories	Defined	Codes	Color
Actions	Utilizing instructional technology	88:88, I will display the remaining groups in a PowerPoint slide to display the presentation dates. I will send an email to see if anyone needs to select chairs from the furniture stock.	Orange
Analysis	Exploring how I utilize instructional technology	129:15 Regardless of the number of students or how formal the teaching environment is, the teaching-learning process's key is communication.	Brown
Assessment	Measuring Theater education instruction	83:5 The section of the theater where the audience sits is called the house (T or F).	Dark Green
Curriculum	Theater education course content	81:2 Play 1 Please respond to the following questions and submit them in the D2L drop box.	Red
Locations	Places where IT is utilized	129:1 Week 1 Monday Summer THEA1 121 Sloan Band Room	Pink
Perceptions	Demeanor and emotions utilizing instructional technology	77:19 It is interesting, like it is not just my thoughts about how I see myself but how other people perceive me, and in that one, I look like a deer in the headlights.	Black
Preparation	Education and professional development	76:35 My graduate education in IT at DU has been enlightening. I did not realize how much I knew until I began connecting theory, terminology, and research with the practical application of IT I had been employing for years.	Light Green
Resources	Teaching materials and equipment	128:5 If you need to contact me at any time. My email address rbroomer@xxxx.xxx Or call me at (XXX) XXX XXXX. Thank you!	Yellow
Students	Utilizing IT with Learners	125:4 I can provide guidance to students by leading them to valid and reliable digital sources Yurdakul et al. (2012, pp. 975–976).	Purple
Time	Periods utilizing instructional technology	99:4 During my instruction, I felt a little anxious because I wanted to make sure that everyone could access the online midterm and electronic textbook.	Light Blue

To illustrate the process of data collection and analysis, Chapter 4 provides a narrative describing the prominent codes and categories. I narrowed down relevant repetitive codes and categories based on how they related to my three research questions and the overall purpose of this self-study.

In the second cycle of coding, I used pattern coding as the strategy addressing terminology related to RQ1, RQ2, and RQ3 used in the three specific domains of TPACK: (a) TCK, (b) TPK, and (c) PCK. Pattern codes are explanatory or inferential codes that identify an emergent theme, configuration, or explanation (Saldaña, 2015).

Table 5

Post-Coding Top Ten Focusing Strategy with TPACK

Categories	Defined	Quotes
1. Actions	Using TPACK	156:20 I reviewed the assignment to complete the dropbox exercise and study for the online final-based chapters lighting/sound and diverse/global theater (TCK).
2. Analysis	Exploration using TPACK	201:1 There are a few more skills in D2L I want to teach them using the computer lab. These skills will help students with instructional technology-related to D2L assignments (TCK).
3. Assessment	Measuring TPACK in theater education	146:12 Those questions are now located in D2L. Select content and scroll down on the left-hand side until you see Project 2 (PCK).
4. Curriculum	TPACK in Theater education course content	154:2 As a teacher, I am knowledgeable about the subject I teach in theory and practice after many years of teaching and working in the theater (PCK).
5. Locations	Places using TPACK	196:1 Attending a live performance locally with my students less than two miles away from the campus is an excellent supplement to the textbook (TPK).
6. Perception	Demeanor and Emotions using TPACK	160:15 Before my instruction, I feel excited to see the students' presentations based upon their theater profile, so I am looking forward to today's class with excitement (PCK).
7. Preparation	TPACK Education and professional development	152:51 I attended additional faculty technology workshops at LHU and began teaching face-to-face and distance-education introductory theater courses. The LHU workshop leaders were unfamiliar with how to teach theater using technology (PCK).
8. Resources	TPACK Teaching materials and equipment	145:3 Together, we will study a wide range of information about this broad topic, theater. Ensure you get a copy of the textbook, which will be an invaluable resource (TPK).
9. Students	Teaching with TPACK	184:1 We did a stage geography exercise. I showed them a set design ground plan from the textbook and asked them to identify different items circled on the ground plan using stage geography (TPK).
10. Time	Periods using TPACK	182:1 week 9 LHU Clearfield Campus fall THEA110 90 Bldg. 2 Room A121 Wed. 11-12:15 pm 50% hybrid course (TCK).

First, I examined the same 10 categories using the pattern coding strategy. I looked for the frequency of the TPACK domains in 69 artifacts I collected related to

RQ1, RQ2, and RQ3. Illustrated in Table 6 are the 10 categories with related quotes demonstrating the frequency TPACK is used in my teaching practice.

Next, I coded the four intersecting knowledge areas of PCK, TCK, TPK, and TPACK during the third cycle. The business of these bodies of knowledge, both theoretical and in practice, produces the types of flexible knowledge needed to successfully integrate technology use into teaching (Koehler & Mishra, 2007).

Table 6

Data Analysis

Types of Data	Analysis Methods Used	Number of Weeks
Personal narrative	Initially, I used three coding cycles of Atlas.ti. Second, I selected a data section to code and engaged in memoing from the initial coding schemes. Next, I organized codes into categories and themes.	Three
Photo analysis	First, I coded the interviews of my critical friends Next, I coded the images they analyzed in two coding cycles.	Two
Reflection	Initially, I used three coding cycles of Atlas.ti. Second, I selected a data section to code and engaged in memoing from the initial coding schemes. Next, I organized codes into categories and themes.	Three
Self-reporting survey	To begin, I explored the survey data by creating word clouds or word lists. Next, I added code comments and memos with Atlas.ti.	Two
Teaching artifacts	First, I coded six teaching artifacts using two cycles. Next, during the third cycle, I organized codes into categories and themes.	Two

In qualitative data analysis, a code is often a word or short phrase that symbolically assigns a summative, evocative attribute to a portion of language-based or visual data (Saldaña, 2015). During the first cycle, I analyzed the initial coding schemes. Next, I selected a data section and opened one or more codes in the code manager. I then

chose a data section or quotation to code. During the second cycle, I identified phrases and organized the codes into 10 categories. Throughout the process of analyzing the data, I engaged in memoing or writing memos. I checked the codes for redundancy using the coding analyzer. Finally, during the third cycle, I revisited the codes, searching for themes, concepts, and relationships (Silver & Lewins, 2014). In the third cycle, I identified four intersecting knowledge areas: TCK, PCK, TPK, and TPACK.

The reflection included responses to the 10 questions that I answered each week in the summer and fall semesters. The items included a reflective examination of my experiences before, during, and after each week's instruction. These questions are based on Gibbs' (1988) model of reflective practice (see Figure 2). The purpose of this weekly reflective writing about my practical experiences was to explore my PCK, TCK, and TPK. These data directly inform RQ1–3.

I selected a survey tool specifically developed to measure attitude toward the use of TPACK by instructors in a scientifically accepted and valid manner. An attitude is a preferential way of behaving or reacting under specific circumstances rooted in a relatively enduring organization of beliefs and ideas around an object, subject, or concept (Joshi et al., 2015). The survey, a 5-point symmetric Likert scale with 33 items, allowed participants to choose 1 of 5 responses ranging from *strongly disagree* to *strongly agree* (Joshi et al., 2015).

I administered the self-reporting survey four times for THEA110, my introductory theater course, which was before and after each summer and fall semester during the data collection period. The 33 items in the self-reporting survey covered four areas of

competency using TPACK: (a) designing instruction, (b) implementing instruction, (c) ethical awareness, and (d) proficiency (Yurdakul et al., 2012).

First, the survey data were prepared and imported into Atlas.ti. Next, I examined the data by creating word clouds and word lists with the auto-coding feature. I then coded and added code comments and memos to the open-ended questions with answers. The survey responses, which should be of interest to other theater instructors, inform my understanding of RQ3, which asks how I can help theater instructors understand the relationships among content, learning activities, assessment, and effective technology integration. I address this determination in the discussion section.

For the photo analysis, I took multiple images of myself using an adjustable UBeesize Travel Video Tripod. I mounted my Android phone on a tripod for all three sections during the summer and fall of 2019. I positioned the camera of the Android phone to capture images without photographing students. I took multiple flutter shots by pressing a thumb-sized remote control in the palm of my hand. The remote control was compatible with my phone, and it came with the tripod. First, I analyzed the photographs collaboratively with my two trusted colleagues, who served as critical friends for this self-study. Next, I assigned a series of adjectives to describe myself based on the photo analysis. I then discussed my interpretation of the photographs and adjectives with my two critical friends. Finally, I uploaded the pictures directly into Atlas.ti and analyzed all six images.

The purpose of this photographic analysis was to reflect on my appearance during my teaching practice and discuss these images with my critical friends. The photographic analysis addresses information related to RQs 1–3.

Limitations

The first limitation of this research was that the setting, resources, and equipment accessible to me as the researcher necessarily influenced this self-study's context and findings. A second limitation was that the basis for my research comprised a personal narrative, photographic analysis, reflection, self-reporting survey, and teaching artifacts generated as part of my work as an educator at LHU in central Pennsylvania. A third limitation since I was the primary participant in this self-study was not including my students' perspectives. A fourth limitation was the descriptions used for face-to-face, hybrid, and online teaching modalities. The definitions for this study came from LHU, and, therefore, they may differ from those of other institutions, limiting the generalizability of this study to other educational systems.

Delimitations

This self-study focused on my practice teaching an introductory theater course that integrates IT. I taught introductory theater for 18 years using technology at LHU, compared to my technology use in other courses under my instruction. As such, this was the only course I selected to analyze in this study. Technological pedagogical CK was the only theoretical framework applied in my research. Undergraduates at LHU constituted the only audience for the instruction I prepared, delivered, and analyzed. Finally, the integration of IT referred to in this self-study did not include software used in theater set, light, sound, or costume design courses, such as AutoCAD, Sound Forge, QLab, or Vectorworks.

Summary

In this chapter, I discussed my research methodology and how it aligned with my research questions. I recounted my step-by-step data collection process for this self-study, which included a reflective analysis of my teaching practice. To ensure my research's reliability and validity, I used five data sources and worked with two critical friends. Conducting this self-study research design was appropriate because it has illuminated unexpected aspects of my personal and professional approach to teaching with IT. I concluded the chapter by identifying the limitations and delimitations of this self-study.

Chapter 4

Findings

The purpose of this chapter is to present findings from the analysis of the data collected for this qualitative self-study. This study was an examination of my knowledge and practice of using IT in theater education. These findings can help scholarly practitioners understand the relationship between instructional content, learning activities, assessment, and effective technology integration.

TCK, TPK, and PCK are dynamic, but for this chapter's purposes, I discuss each one as a different theme and then discuss each in a fourth theme's intersections. I referenced my education and work experiences using a reimagined TPACK model (see Figure 4).

The purpose of this reimagined TPACK model was to personalize the seven components in this theoretical framework. This new way of conceptualizing the TPACK model emerged after analyzing the data in this self-study.

Figure 4

A Reimagined TPACK Model Based on my Educational and Occupational Experiences

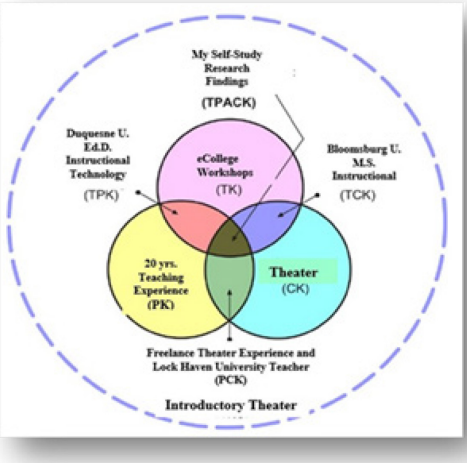
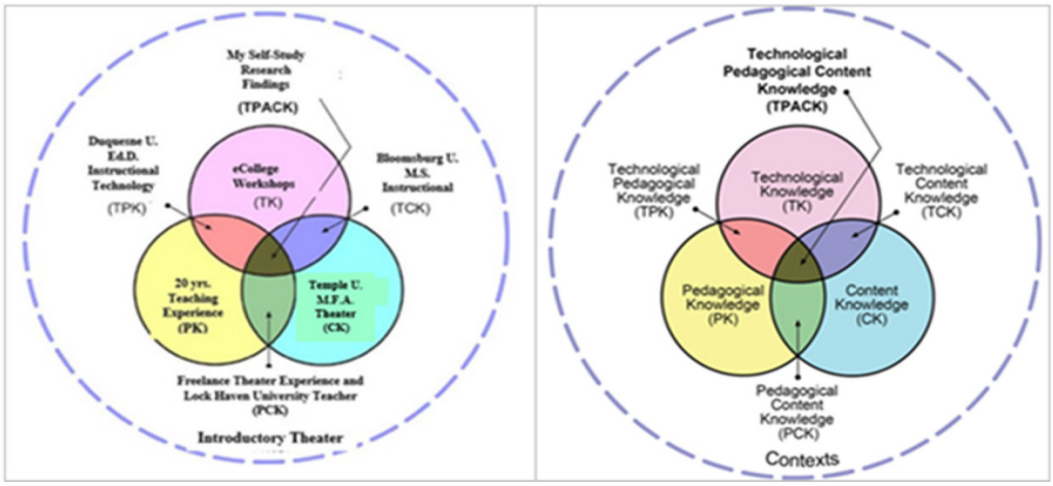


Figure 5

Reimagined TPACK Model (l) and Original TPACK Model (r)



Initially, I focused primarily on the theoretical aspect of TPACK while utilizing it practically as one static entity. Now, I share my observations and experiences based on an authentic, working knowledge of TPACK that emerged from my self-study research. I elaborate on the meaning of each of the seven components in this reinterpreted TPACK model, beginning with theme one and my PCK.

Theme 1 How I Teach: Understanding my Pedagogy Content Knowledge as a Theater Educator

Figure 6

Reimagined TPACK Model Featuring my PCK Amplified by my Professional and Academic Theater Experiences

PCK covers the core business of teaching, learning, curriculum, assessment, and reporting, such as the conditions that promote learning and the links among curriculum and pedagogy (Koehler & Mishra, 2009, p. 64). My PCK stems from the understanding and information from years of working in professional theater and my 20-year career teaching theater to undergraduates. I developed my passion for theater by working behind the scenes as a freelance theatrical costume designer before my higher education career began. The development of my PCK creates an essential foundation for all the domains that emerged in my practice, namely TCK, TPK, and TPACK. In theme one:

- I explore these four categories (i.e., perceptions, preparation, resources, and curriculum) related to how I taught with background information about my professional and academic theater experiences.
- After that, I answer RQ1.
- Finally, I address the findings associated with my PCK and my narrative.

Perceptions

My professional aspirations did not include becoming a university lecturer or "sage on the stage" (King, 1993, p. 30). I felt comfortable working in theater as a freelance costume designer. I became an instructor of theater due to the expectations of what others thought I could do. Initially, I was recommended for a teaching position at West Chester University (WCU) and subsequently hired. Before signing my first teaching contract at WCU in 1997, I never considered becoming a university professor, which is evident in my personal narrative:

> I worked as a freelance theatrical costume designer in Philadelphia and Los Angeles for 15 years before teaching college. I decided to go to graduate school to study costume design after a friend encouraged me to apply for a Future Faculty Fellowship (FFF) at Temple University (TU). I was offered and accepted the fellowship, even though I was unsure if I would teach higher education as stipulated in the FFF's fine print. (Personal narrative, 76:3, 06/31/18)

After receiving the FFF from TU in 1993, I never considered teaching higher education as a profession. Shortly after I graduated from TU in 1996 with an MFA in Costume Design, Dr. Robert Hedley contacted me. Dr. Hedley was the chair of the Theater Department at TU. He recommended me for a teaching position at WCU in West

Chester, PA. I was astonished to receive the call and wondered why anyone thought I could become a university professor. I interviewed for the position and was pleasantly surprised to be hired for one year (1997–1998) as a sabbatical replacement. My duties as an "instructor of theater" at WCU included teaching costume construction and an introductory theater course, supervising the costume shop, and designing costumes for one show. After designing costumes professionally for so many years, I felt comfortable with the subject matter, sharing my knowledge and teaching theater.

Preparation

The data analysis process revealed a deeper understanding of the roots of my preparation as an instructor. My practice as a theater instructor is grounded in three key areas: (a) professional theater expertise, (b) graduate theater education, and (c) faculty PD. I address the third key area, my faculty PD, in the next theme.

Initially, my PCK emerged in phases over many years. With no time or opportunity for reflection, I had not described this moderate transformation until now, when I completed this self-study. The reimagined TPACK model in Figure 6 helped me envision the significance of my PCK and the years of preparation expressed in my narrative.

> In 1997, shortly after graduating from Temple with an MFA in Costume Design, I began working at WCU as a full-time temporary theater instructor sharing a computer with a colleague. (Personal Narrative 76:5, 06/30/19)

Through the data analysis, I gradually discovered that I am an instructor with the knowledge and experience to teach theater in higher education. First, I worked as a

professional, freelance theatrical costume designer in Philadelphia and Los Angeles for 15 years before enrolling at TU.

As a freelance costume designer, I worked in regional theaters and theaters on the East and West Coasts that presented touring Broadway productions. Regional theaters are not-for-profit performance spaces situated in communities throughout the United States (O'Quinn, 2015). My graduate theater education occurred at TU in a three-year graduate conservatory design program. I received intensive training in drawing, designing, and constructing stage costumes. Shortly after graduating from TU with an MFA in Costume Design, my PCK began to emerge without my explicit knowledge. In other words, my employer, WCU, based on the job description, positioned me as a theater educator, but I did not perceive myself as one at the time. That was not part of my identity: I still felt like a graduate student in transition.

> My students see me as a highly approachable professor who generally cares about their success academically and personally. (Photo analysis, 77:7, 10/17/19)

I began working full-time at WCU as a temporary instructor relying heavily on my professional experience in theater. I fulfilled my job description duties using my graduate theater education, expertise, and trial and error. The next phase of my emerging PCK began in earnest. My PCK unfolded while teaching courses in costuming and an introductory theater course for the first time.

During my first five years as a theater educator, I worked at three different universities: WCU, ASU, and LHU, my current employer. Initially, I taught theater without using IT with a teacher-centered approach. This approach is a teaching method where the teacher is actively involved in teaching while the learners are passive and

receptive, listening as the teacher teaches (Keengwe & Onchwari, 2016). During this period, I used my PCK. I worked for one year in the theater department at WCU. Merging my practical and academic experience proved to be a powerful combination when I started teaching at WCU. I was initially petrified standing in front of a room full of students until I realized they were waiting for me to teach them what I knew about the subject. I developed a real admiration for teaching theater while sharing my PCK in a university setting at WCU.

After one year of teaching at WCU, I taught in the theater department at Alabama State University (ASU) in Montgomery, AL, for three years, from 1998-2001. At ASU, I continued to use my PCK while teaching introductory theater and costuming courses. My personal narrative helped me recognize my PCK as a composition of varied yet valid experiences expressed in this excerpt:

> I had never considered the impact of computers or computer literacy in K–12 on undergraduates before taking the instructional technology certification courses. With all the technology and student support services in higher education, I assumed all students could use computers and course-management systems like Desire2Learn or Blackboard. (Personal narrative 76:36, 06/30/19)

Resources

I felt confident in my teaching ability in my new position at ASU, but I still had not been introduced to IT. In my office at ASU, I used my desk computer to search the internet and print copies of interesting articles I found online. I wrote lessons and class notes on chalkboards and dry erase boards in rooms without software, electronic devices, or internet access. I used the same textbook and syllabus provided by the previous

instructor, a practice I felt comfortable following at this university and WCU. I left ASU with no exposure to IT. However, my theater knowledge and teaching ability increased due to this experience as I developed my teaching and curriculum methods.

After working for three years in the Theater Department at ASU as an assistant professor of theater, in 2001, I was hired at LHU in Lock Haven, PA, to teach three courses, and serve as the Director of Costume Design and Stage Makeup. When I arrived at LHU, they began to install technology in some classrooms, including computer workstations, SMART Boards, projectors, and projection screens. My practical and academic experience with theater meant that I felt confident delivering my course content without technology. In one of my weekly reflections, I stated the following:

> As a teacher, I am knowledgeable about the subject I teach in theory and practice after many years of teaching and working in the [field of] theater. (Reflection 44, 91:0, 11/13/19)

During my first year at LHU, I continued delivering content for learners on chalk and dry erase boards. I never considered that I would ever use the newly installed IT at LHU to teach theater.

Curriculum

I gradually developed the theater curriculum I taught based on my practical and academic experience. In retrospect, I have changed as an educator, and the curriculum has also changed significantly. These changes stem from new developments in the subject matter, increased instructional resources, and evolving teaching methods. As a result, my theater curriculum has become more engaging. Teaching theater with a relevant textbook is an essential aspect of my practice as the textbook topics and terminology guide my

instructions (i.e., they support the course objectives and assessment measures, assignments, and projects).

As the instructor, I am the voice; the theater curriculum is the vehicle. Planning the curriculum keeps me up at night; it gives me an endless list of things I want to teach. The curriculum keeps me in a perpetual state of development with an infinite flow of ideas. I come up with ideas when waking up, driving, and on many other occasions. Therefore, I always keep small pads of paper and ink with me. I have never been at a loss as to what to teach when it comes to theater. Sometimes, I am inspired by different theatrical elements, articles I have read, the performances I have attended, student inquiries, and classroom dynamics. My passion for theater ensures that I always think about the curriculum. This passion is evident in this transcript from a video that welcomes students to my course:

> Hello, scholars. I am Professor Ramona Broomer, and I will be your instructor for THEA110 Theater: An Orientation (see Appendix F). I am looking forward to working with you. Together we will study a wide range of information about this broad topic, theater. Make sure you get a copy of the textbook. It will be an invaluable resource in our study together. We will use the text for chapter readings and exams. We will learn information about the director, the playwright, the actors, the designers in the areas of set, lights, sound, costumes, and more. If you need to contact me, my email address is rbroomer@lockhaven.edu, or you can call me at (570) XXX XXXX. Take care and thank you! (Course greeting video, 145:0, 06/24/19)

Utilizing my PCK to plan how I represent and formulate theater so learners can understand it is immensely fulfilling. Following the reflections generated from this self-study, I planned a course curriculum for subsequent lessons and assignments after each class period. Here is an example:

> I am going to make a copy of each ground plan they looked at today. The next time we can revisit the same ground plans and explore stage geography to help students understand these locations (upstage, downstage, stage right, and stage left) and all nine different positions using the stage geography chart. (Reflection, 127:15, 10/23/19)

Pedagogical Content Knowledge Findings

After analyzing the data, I understood the significance of my professional theater experience and my graduate theater education toward developing my PCK. My

PCK emerged early in my career at LHU while teaching theater initially without technology. I gained this skill set from working in theater years before I became an educator. I later learned the formal definitions and theories that expanded my theatrical knowledge. After analyzing my personal narrative, I realized the challenges and growth that I had faced, strengthening my theater knowledge.

Analyzing the contents of my personal narrative also helped me to answer the first research question. How does TPACK as a theoretical framework inform an understanding of my teaching practice? Informing my teaching practice relies heavily on perpetual proficiency in the subject matter, directly related to how I teach the curriculum. My knowledge of the subject matter initially emerged informally from the training and expertise I received from working in theater for 20 years as a freelance costumer. My

direct experience with the art and craft of theater greatly influenced how I teach. I borrow from my teaching career and my practical experience as a freelance costumer when creating visual content to accompany my text-based curriculum. This excerpt contains an example:

> The students seem to benefit from being able to see images that coincide with terms because theater is a performing art that students can observe. There is usually something visually connected to the terms. I can see their positive reactions once they correctly identify the terms and images. (Reflection 113:15, 09/30/19)

Finally, I integrate practical aspects of the introductory theater course I teach from working as a freelance costumer for the stage. Working in multiple theaters and reading countless plays set in different periods gave me relevant practical and professional expertise. This expertise is the foundation for teaching theater in general and specifically informs my introductory theater course.

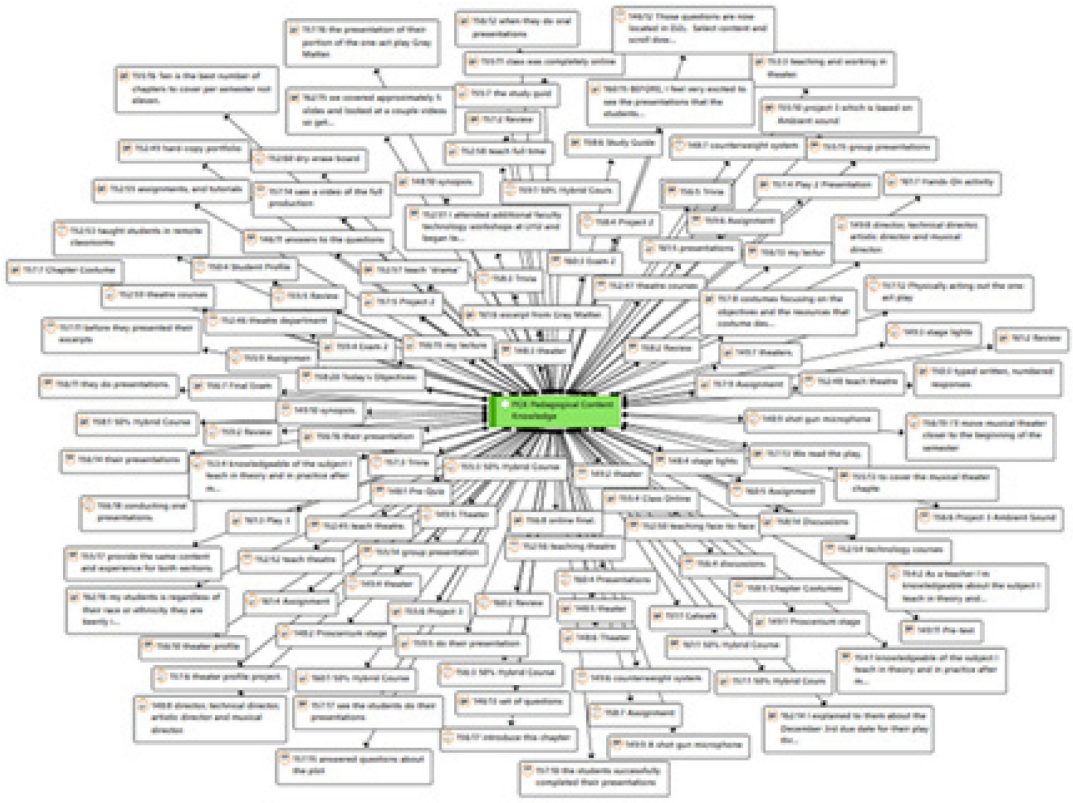
Summary

Before conducting this self-study, I was not aware that my teaching method incorporated CK in theory and practice. Now, I am aware that my PCK emerged while teaching undergraduates at LHU. My self-study research and the process of developing and analyzing my personal narrative were highly enlightening in this regard. My personal narrative provided a perfect opportunity for me to revisit and contemplate my PCK journey's genesis. This self-study analyzing my teaching practice with various data sources, including a personal narrative, has provided a greater appreciation for the power of reflection. I approached teaching as a separate profession when I began working in

higher education. I did not see the impact my theater career had on the development of my PCK until completing this self-study.

Figure 7

Atlas.ti Network Organic Layout of Pedagogical CK Codes



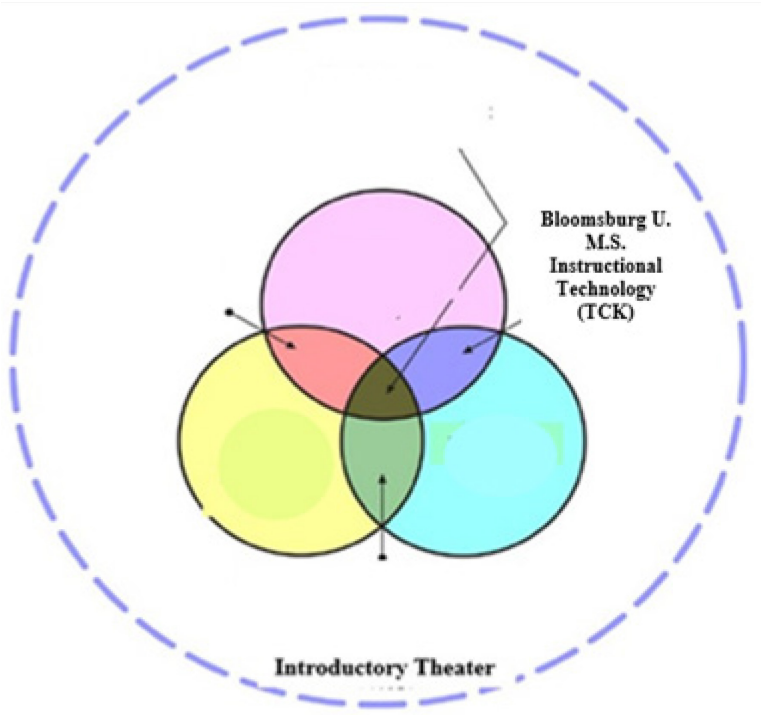
Note: This figure depicts an organic network layout created with Atlas.ti of 124 codes generated during the second coding cycle. These codes illustrate how I teach introductory theater using my Pedagogical Content Knowledge.

My PCK emerged first, followed by my TCK. The next theme addresses my TCK evolution, which was enhanced by my graduate studies in IT, featured in Figure 8.

Theme 2 What I Teach: Understanding my Technological Content Knowledge as a Theater Educator

Figure 8

Reimagined TPACK Model Featuring my (TCK) Enhanced by Graduate Studies in Instructional Technology at Bloomsburg University



TCK is a proficiency in teaching a subject matter with a deep understanding of how the subject matter can be changed by applying technologies (Koehler & Mishra, 2009, p. 65). For theme two:

- I explore these six categories preparation, resources, locations, students, curriculum, and time and what I teach.
- Next, I focus on the findings associated with my TCK, featuring my reflections.
- Last, I answer research questions one and two.

Preparation and Resources

Before working at LHU, I rarely used technology to facilitate pedagogical approaches to delivering my introductory theater course. The available resources at my disposal gradually increased at LHU. For example, in my office, I had a desktop computer, printer, and scanner. I had never used a scanner but was eager to learn how. I used the computer and printer to create course handouts and exams. Occasionally, I used an overhead projector to display course notes and a slide carousel with images of theaters worldwide.

In 2002, shortly after I arrived at LHU, the university began installing SMART Boards, interactive whiteboards, and an LMS called eCollege. eCollege was the first LMS adopted by LHU. eCollege was replaced after two years by Desire2Learn (D2L), another LMS. For the College of Arts and Science, the dean asked for volunteers to learn how to use eCollege. This self-study has helped me realize the scale of volunteering required to learn how to use IT while in its infancy at LHU. My decision to volunteer changed my instructional practice and what I teach as a theater educator.

Figure 9

eCollege eTeaching Institute Website at LHU Circa 2002

> The energy in the room changes when the students work together:
>
> I noticed this when I introduced the group project and allowed them to talk among themselves. I need to remember teaching is like a big circle. I have always thought of this as part of my philosophy as an instructor. I teach the students something, and then they teach me something. It is a continuum, and I can see this with the prospects of what we will learn together this semester. (Reflection 108:18, 09/11/19)

I signed up for a series of PD workshops sponsored by the university and offered asynchronously through the eCollege eTeaching Institute. Figure 9 above is a screenshot of the eCollege eTeaching Institute website's homepage.

The preparation I received from these PD workshops was invigorating. I gradually learned how to use the eCollege features such as dropbox, visual editor, webliography,

and the grade book. I incorporated my new IT skills immediately in my course. The first significant step was learning how to use my theater course's LMS to support my emerging TCK.

However, developing my TCK was challenging because the eCollege training did not cover using these resources to create course content and engage learners specifically for teaching theater. This excerpt is an example from my personal narrative.

> I attended additional faculty technology workshops at LHU and began teaching face-to-face and distance-education introductory theater courses. The LHU workshop leaders were unfamiliar with teaching theater using technology. (Personal narrative, 76:15, 06/31/19)

This introduction to IT from these eCollege workshops ignited my TCK. I particularly enjoyed observing my colleagues' work when we shared examples of using technology in these PD workshops. I recall how excited I felt the first time I shared my work with my colleagues. Displayed on the lecture hall projection screen for all to see was an image of an elaborate, ornate theater I selected for the home page of my eCollege course shell with a welcome address to my students. I immediately incorporated what I learned, utilizing eCollege*,* into my course work. I continually learned how to use different tools in the LMS each semester. Table 7 has a list of eCollege tools I used to teach theater.

Table 7

Six eCollege, LMS Tools

Announcements	Course Scheduler	File Manager	Modules
Assignments	Discussions	Gradebook	Syllabus
Blog	Doc sharing	Groups	Text/multimedia pages
Calendar	Dropbox	Journal	Visual Editor*
Course copy tool	Email	Learning plans	Wiki
Course enrollment	Exams	Live Chat	Webliography

For example, with the eCollege Visual Editor*, my course artifacts such as handouts or examinations could be created and modified using plain text or the HTML editor. By utilizing my TCK with the eCollege Visual Editor* technology, multiple learners could access course artifacts with unlimited access to view or download them. I also learned how to add hyperlinks to external information with the eCollege Visual Editor.

I teach using my TCK with eCollege, resulting in interactive content compared to a hardcopy handout or exam. I enjoyed gaining relevant knowledge that was immediately applicable to my introductory theater course from these eCollege workshops. The campus workshops were face-to-face, and the eCollege eTeaching Institute offered online synchronous or self-paced asynchronous instruction. I often found myself staying to the end of the synchronous workshop for the Q&A sessions, which were valuable learning tools. I would listen and learn so much from responses addressing my colleagues' questions.

In 2007, I enrolled in a master's program for IT because I wanted to increase my teaching skills. My BU graduate school education greatly expanded my TCK, but I continued to encounter instructors who were unaware of specific ways to incorporate

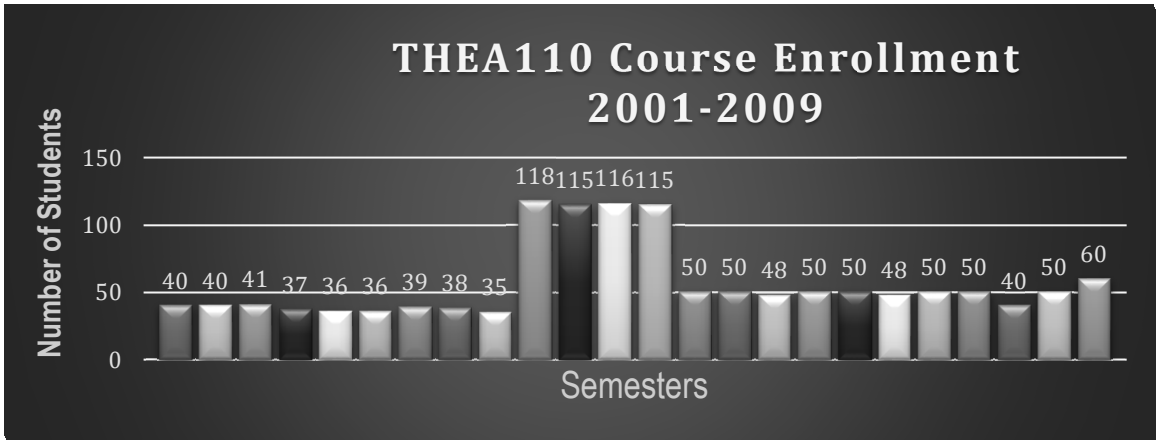
technology into theater courses. When I introduced myself as a theater educator at the PD workshops and in my graduate courses at BU, I received perplexed reactions because of the uniqueness of my disciplinary area of expertise. The rigorous and informative coursework at BU contributed significantly to my growing TCK. Most of my peers at BU were K-12 educators in math, science, and technology.

The eCollege workshops and graduate school instruction elevated my course curriculum. I became more proficient in using different software applications and the hardware technology installed in my classroom. These classroom resources included a SMART Board interactive whiteboard, technology workstation with a desktop computer, document camera, DVD player, digital amplifier, microphones, and a control panel to operate the projector and projection screen. My classroom became the ultimate laboratory to experiment with my burgeoning TCK skills. Some of these experiments were more successful than others, but I became more knowledgeable and comfortable teaching theater with technology through trial and error.

Given the increasing enrollment, I received a request from university administrators to teach more sections of my theater course on the LHU main campus and a new section on the LHU Clearfield campus in Clearfield, Pennsylvania. I also developed a syllabus for a fully online version of my introductory theater course in 2009. The number of undergraduates enrolled in my introductory theater course increased when I started teaching theater with IT. For example, I taught THEA110 in the fall of 2001; without technology, I had 40 students enrolled in my course. Three years later, in the fall of 2004, I taught THEA110 using IT, with 116 students enrolled in this course. In Figure 10, an illustration of this information appears.

Figure 10

Introductory Theater Course Enrollment 2001–2009



The graph in Figure 10 depicts the number of students enrolled in THEA110 each semester from 2001–2009. I did not collect student data for this study, so the increase in enrollment is non-empirical evidence suggesting the use of IT may have added to this course's appeal. The white bar graph in Figure 10 depicts the number of students enrolled in THEA110 each semester from 2010–2020.

Next, I discuss the relationship (or interaction) between locations and students from the perspective of utilizing IT as a theater educator.

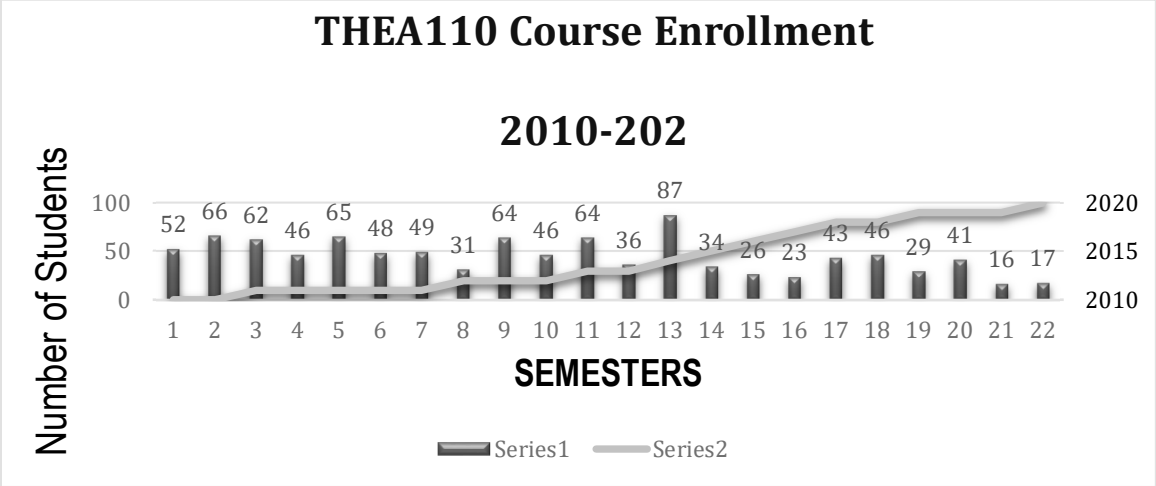
Locations and Students

When combing the data, I realized that my TCK played an essential role in multiple locations for my introductory theater course. These locations include two different LHU campuses with face-to-face and virtual course offerings of THEA110. I teach this course on the LHU main campus and the Clearfield campus, one hour west of Lock Haven, PA. These locations are significant because my instruction has occurred in several different classrooms on both campuses. Here is a reflection excerpt about teaching theater on both LHU campuses:

> Great class, lots of energy and enthusiasm. These students are a fascinating group to work with this semester. There will be some challenges working with this group of students, which is almost three times the LHU Clearfield section's size. It will be challenging to complete the same content in the same amount of time with twice as many students. I am looking forward to working with my students this semester. (Reflection 107:15, 09/09/19)

Figure 11

Introductory Theater Course Enrollment 2010–2020



For example, during the 5-week summer session and 15-week fall semester, I taught THEA110 on the LHU main campus in Sloan Auditorium, Price Auditorium, Sloan 321 black box theater, and Sloan 121, the band room. I conduct class periodically in various locations on campus to show students the different types of stage spaces we cover in the course. On the LHU Clearfield campus during the 15-week fall semester, I taught THEA110 in Building 2, Room 131. Featured in Figure 12 are images of some of these locations.

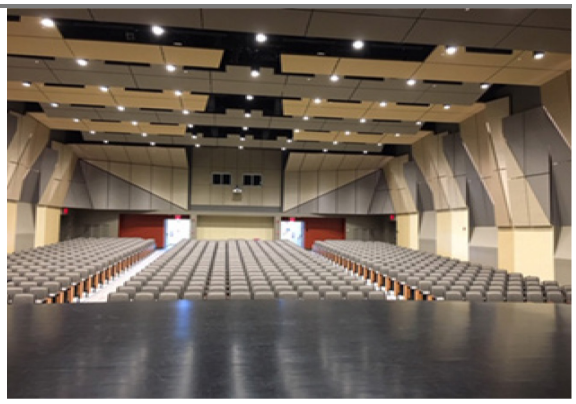
Figure 12

Images of Classrooms on the LHU Main and Clearfield Campuses

Sloan Main Stage, a 300-seat auditorium

LHU Clearfield Bldg. 2 Rm A131, a 65-seat lecture hall

Robinson 115, a 120-seat lecture hall



Price, a 600-seat auditorium

On the LHU main campus, I have taught THEA110 primarily in the Sloan Fine Arts Center and other buildings in the following rooms:

- Sloan 121, a 50-seat band room,
- Sloan 321, a 40-seat black box theater,
- Sloan 336, a 50-seat classroom,
- Sloan main stage, a 300-seat auditorium,

- Himes 109, a 50-seat classroom,
- Raub 323, a 50-seat classroom,
- Robinson 115, a 120-seat lecture hall, and
- Price, a 600-seat auditorium.

On the LHU Clearfield campus, I have taught THEA110 in the following rooms:

- Founder's Hall 100, a 65-seat lecture hall
- Building 2 Room A123, a 65-seat lecture hall, and
- Building 2 Room A131, a 65-seat lecture hall

The sound system and control panel to operate the computer hardware varies on both LHU campuses. Most of these classrooms have Windows-based computers, but one location, Sloan 121, the 50-seat band room, has a Macintosh operating system. Mastering and avoiding issues with classroom technology can significantly affect what I teach.

Undergraduates enrolled in my introductory theater course on the main campus are typically non-majors. The LHU Clearfield campus students study health care professions and take my theater course to satisfy a general education course requirement. The following is an excerpt from a weekly reflection during the fall semester while teaching THEA110 on LHU's main campus:

> This semester was challenging teaching two sections of the same course with different enrollment sizes. I had to work hard to provide the exact content and experience for both sections. The semester, however, was rewarding. (Reflection 86:25, 12/02/19)

In 2009, I started teaching *distance education* introductory theater sections on the LHU main and Clearfield campuses. Distance education is instruction where the learning

group is separated and where interactive telecommunications systems connect learners, resources, and instructors (Schlosser & Simonson, 2006). I would have a group of students in the same classroom while simultaneously teaching another group of students with distance education. For example, the LHU Clearfield students were primarily health care majors taking THEA110 as a general education course.

I taught introductory theater in the distance education classroom to students on the Clearfield campus. At the same time, I taught LHU Clearfield students taking a break from their nursing shifts in a remote classroom at Brookville Hospital, Dubois Regional Medical Center, or Mt. Nittany Medical Center. Using my TCK was extremely challenging because I had to face the camera while teaching and using it to display the learning content. The students were on various cameras that would shift to a closeup when they spoke while pressing a microphone unit on their desks. The Polycom video room system was physically built into the local and remote classrooms with compatible microphones, cameras, and projection screens to transmit the learning environment.

Figure 13

Image of Technology Cart in LHU Clearfield Building 2 Room A131

Implementing my TK came with the perpetual challenge of keeping up with changing technology and theater trends, adapting to new software and hardware with updates that were often unannounced, and learning how to address classroom technology issues before or during my instruction. For instance, intermittently before my class begins, I have inexplicably been faced with a blank blue, white, gray, or black projection screen. The ability to project audio or visual curriculum content to a room full of learners is impossible when one of these blank screens appears. I gradually learned how to remain calm and contact the academic computer service desk for assistance using the telephone in the classroom or my cell phone. I have become more skilled at troubleshooting technical issues. Occasionally the position of incorrectly adjusted dials would affect the operation of the hardware during class. Sometimes, a battery or projector bulb would burn out. I quickly discovered that learners were not waiting to watch me operate technology. They are interested in learning the content matter, which is theater, not technology. Therefore, I prepare a plan B, where if technology fails, I can continue teaching.

Teachers need to know the subject matter they teach and understand how to adjust their curriculum by applying technology (Mishra & Koehler, 2006). However, technology functioning at optimum levels remains a significant factor in the successful implementation of my TCK. It is impossible to deliver course content successfully face-to-face or online with technology that malfunctions or is inoperable. This self-study has helped me realize how my TCK includes a working knowledge of technological hardware and software to support CK's seamless delivery in any learning environment or course modality. This excerpt is from one of my reflections.

I signed up for a series of PD workshops sponsored by the university and offered asynchronously through the eCollege eTeaching Institute. Figure 9 is a screenshot of the eCollege eTeaching Institute website homepage. (Reflection 131:11, 07/02/19)

Understanding my TCK as a theater educator and how to deliver the content successfully is crucial, as well as developing a curriculum to fit a 15- or 5-week semester, which is the focus of this theme's next section**.**

Curriculum and Time

I tried to improve my theater curriculum using a wide variety of technology tools each semester, with encouraging results. From this self-study, I am surprised to see how much I learned in graduate school at BU about using TCK in my introductory theater curriculum, illustrated in Figure 14. This figure depicts the 60 different tools I learned how to use while studying IT at BU.

I created interactive, student-centered content for my introductory theater course by incorporating these different tools for my master's program in IT at BU. Here are a few examples: in general, I tried to create learning artifacts at BU for as many course assignments as possible with theater as the content or subject matter. Using these tools for my introductory theater curriculum at my place of employment made the transition easier. These tools also helped me develop my emerging research interest, the integration of IT into theater courses.

Tailoring my introductory theater curriculum to fit different assigned blocks of teaching time was challenging. I taught this course initially for two 15-week semesters 3 or 2 days per week. In 2005, I developed a five-week version of THEA110 held entirely

online as a summer session course. In 2008, I created a five-week, summer session version of this course, which met face-to-face four days per week. I need to maintain the same caliber and quantity of instructional content when using technology without short-changing the course content's delivery. This excerpt is from one of my reflections as an example:

> What did I learn from what worked well and what did not work well? I have learned how to be flexible, whatever the circumstances, when teaching theater. We had funding for one year and attended four live shows. This semester attending one show worked just as well with the curriculum. I understand the importance of being flexible because a positive teaching and learning experience for students depends upon my attitude and how I approach every circumstance.
>
> (Reflection 196:2, 07/17/19)

Therefore, mastering the software while incorporating what I teach was essential to maintain continuity during 15- or 5-week semesters.

Technological Content Knowledge Findings

In response to my first research question, "How do I utilize IT in theater education?" the answer immediately occurred after receiving the eCollege PD training. I began to use the LMS tools as a theater educator from this moment forward. These eCollege PD workshops had a direct impact on what I teach. I began teaching theater using TCK. However, I was utterly unacquainted with theoretical frameworks in the field of IT, such as TPACK. After completing this self-study of my practice, I realized that I taught theater using technology from a practical approach without a theoretical

foundation. Below is an excerpt from a teaching artifact created initially before incorporating my theoretical knowledge:

> Hello scholars, it is time for Project 2. For Project 2, you will be completing a theater profile based on and a LORT Theater. These theaters belonged to the League of Regional Theaters. Please go to the discussion area and select a theater from the 75 theaters listed in the D2L discussion area. Make sure you are not selecting a theater that someone else has chosen. Once you have chosen your theater, click on the name. It will take you to the theater's website, the source for the information you need to complete the theater profile questions is in D2L under course content. (Project 2 video transcript excerpt, 213:1, 10/28/19)

Now I understand the importance of presenting directions to this project's LMS as a brief video. In a word document, the students can also read to satisfy different learning styles. This short video specifically addresses the needs of visual and auditory learners. Using my TCK, I can use the D2L LMS's multimedia tools to create rich and engaging course content.

For research question two, "How does TPACK as a theoretical framework inform an understanding of my teaching practice?" the answer emerged through writing, carefully reading, and coding my reflections from 20 weeks of instruction teaching THEA110. I created these reflections based on Gibb's reflective model. From this deliberative process detailing events surrounding my theater course, I learned the following from my TCK and what I teach.

First, I routinely prepare an overabundance of course material per class because I have an inexplicable, underlying fear of running out of course content while teaching.

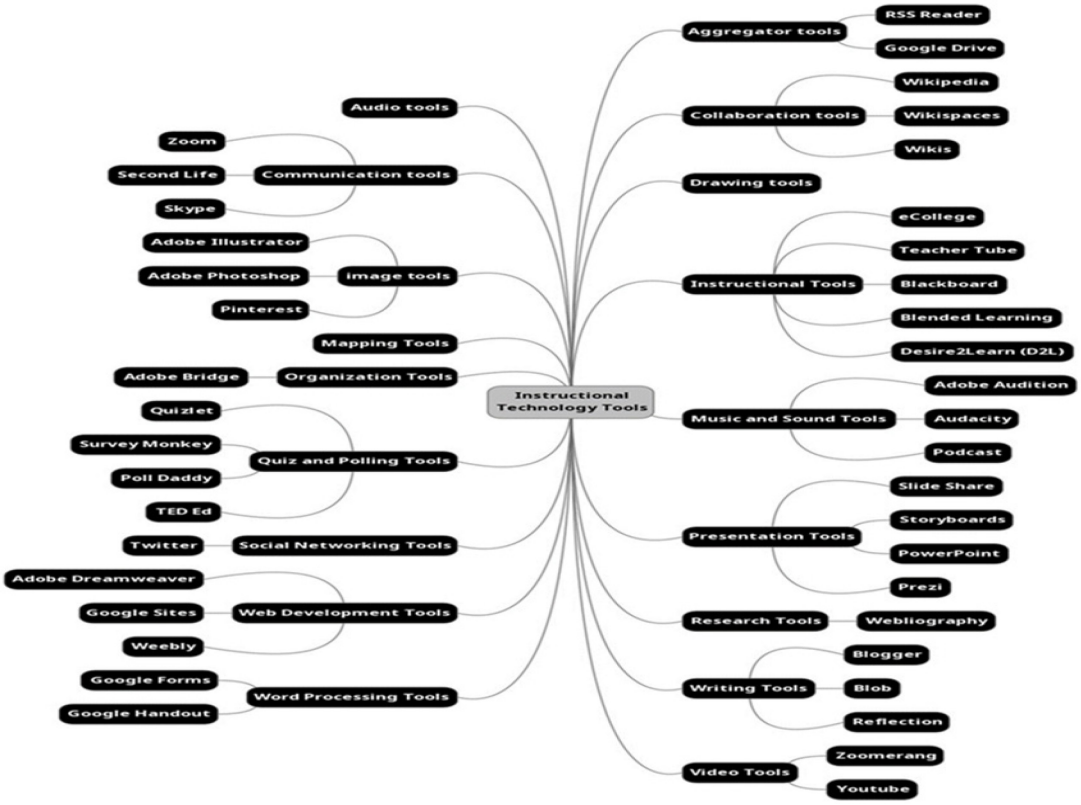
Therefore, I actively avoid this dilemma and prepare accordingly. I also design an extra curriculum for the unique group of learners I teach during the semester. This approach allows me to draw from an abundance of course content using different tools in the LMS and creating content that addresses different learning styles.

Second, I develop ideas for a new or revised curriculum immediately after my class ends. This aspect of my teaching practice was evident in my reflections. Gibb's reflective practice model includes a question that asks educators to reflectively state plans for future instruction. My reflections helped me document this process of creating new material after each unit covered in this theater course. The overall reflective experience I am sure will ultimately make a positive impact on me as a teacher educator as well as my students (Williams, 2018, p.83). Last, I discovered that I am more productive than I realized using my TCK and what I teach based on the amount of content generated.

Before engaging in this self-study, I was unaware of the persistence and perseverance that this challenging journey has required from me. I have not given myself credit for what I have learned in a short period and my ability to apply it to my introductory theater course immediately. My research has transformed my thinking about what I teach and the development of my TCK. The flexibility and resourcefulness needed to teach in multiple locations using my TCK were incredibly eye-opening. However, the most significant impact comes from viewing Figures 12 and 13, which are graphic representations of my TCK. Figure 14 below is a mind map illustrating different IT tools I learned how to use as a master's student at BU.

Figure 14

IT Tools (Master's Degree Program, Bloomsburg U.)

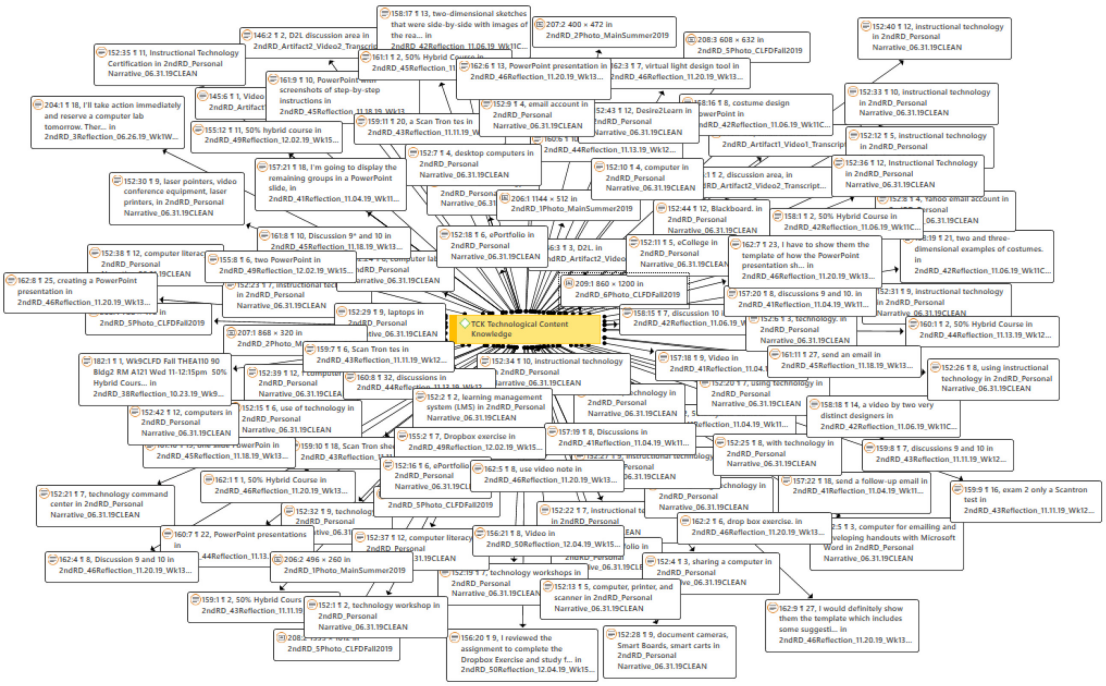


NOTE: This mind map illustrates different 58 Instructional Technology tools I learned how to employ as a master's student at Bloomsburg University.

Documenting this journey was intriguing, and I am anxious to share my findings with other educators. The instructor using the TCK represented in Figures 14 and 15 is revealed in this chapter's next section focusing on my TPK. Figure 15 illustrates codes developed from analyzing my data from this self-study.

Figure 15

Atlas.ti Organic Layout of TCK Codes



Note: This figure depicts an organic network layout created with Atlas.ti of codes generated during the second coding cycle. These codes illustrate how I teach introductory theater using my Technological Content Knowledge.

Summary

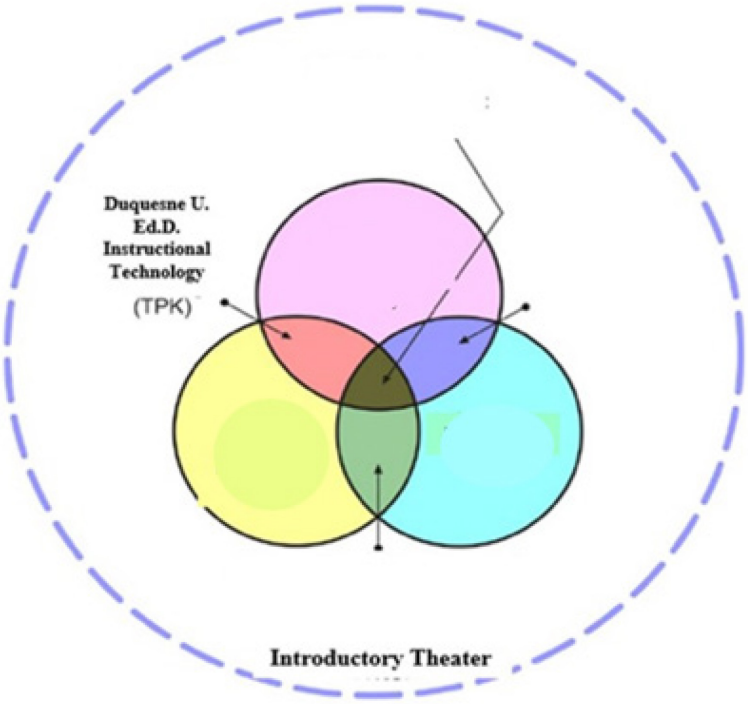
Before conducting this self-study, I did not realize the pivotal decision I made by volunteering to learn how to use the LMS at LHU. Volunteering started the challenging journey of learning new skills and immediately applying TCK to my teaching practice. These skills that take full advantage of my TCK include developing and uploading course content onto the LMS, delivering course content in different modalities, and troubleshooting technical issues related to content delivery. The preparation and training I received helped me successfully understand how to integrate IT into my course content with growing confidence.

The quality and proliferation of available resources at my disposal were significant in further developing my TCK at work and graduate school. I had access to training at work and on my course at BU to understand how to take advantage of these tools and further develop my introductory theater course. From this self-study, I realize that once I began to use technological devices, software, and hardware, it became easier to learn how to use more. These resources strengthened my troubleshooting skills and taught me the importance of being flexible when using technology to add different locations with varied learners. This willingness to work in other locations and learning environments with other students based on their class rank, major, class size, and proficiency with the LMS has dramatically improved my TCK. Analyzing the data related to this TPACK component and what I teach has helped me develop skills, endless flexibility, and fortitude. In the next section, I elaborate on the advancement of my TPK based on my doctoral IT studies at DU.

Theme 3 How I Teach: Understanding my Technology Pedagogical Knowledge as a Theater Educator

Figure 16

Reimagined TPACK Model Featuring my (TPK), Advanced by my Doctoral Studies at DU



TPK is the comprehension of components and capabilities of the different types of technologies used in teaching and learning; it also understands how technologies in specific ways can cause a significant change in teaching and learning outcomes (Koehler et al., 2013). In theme three:

- I first recount the evolution of my TPK as a doctoral student at DU studying IT (see Figure 17).
- I explain how I teach using TPK with these four categories: preparation, resources, perceptions, and locations.
- Next, I address RQ 1, RQ 2, and RQ 3.

- Finally, I present TPK and findings from my teaching artifacts, two videos, and the photo analysis, both reviewed by my critical friends.

Preparation and Resources

I applied to the DU IT, EdD program to increase my IT skills and satisfy my long-term goal of earning a doctoral degree. I submitted artifacts from my Bloomsburg University's Master of Science Instructional Design portfolio with my DU graduate school application. During my DU interview as a prospective graduate student, several questions were posed about the artifacts in my BU portfolio and my research interest, integrating IT in theater courses. Compared to BU, the DU doctoral program had a different approach to what I learned about IT. There was an emphasis on content technology and pedagogy, explicitly using educational technology principles, theories, and instructional models. I quickly realized I had been using these instructional models for many years without having a theoretical base for what I was doing. I found myself always amazed at how familiar these educational technology principles, theories, and instructional models were because I had been teaching for so many years. For example, my practical approach unintentionally had specific theoretical roots. I was using the following:

- Gagne's nine events of instruction, which provide an essential framework for teaching sessions that improve performance as a teacher and ensure improved learners' approval rate (Ullah et al., 2015, p. 35),
- Mayer's principles of multimedia learning, comprised of 12 research-based principles for how to design multimedia (Mayer, 2014, p. 4), and

- Vygotsky's zone of proximal development refers to the difference between what a learner can do without help and what they can achieve with guidance and encouragement from a skilled partner (Hedegaard & Daniels, 2005, p. 5).
- Teaching methods included direct instruction, inquiry-based instruction, and cooperative learning.

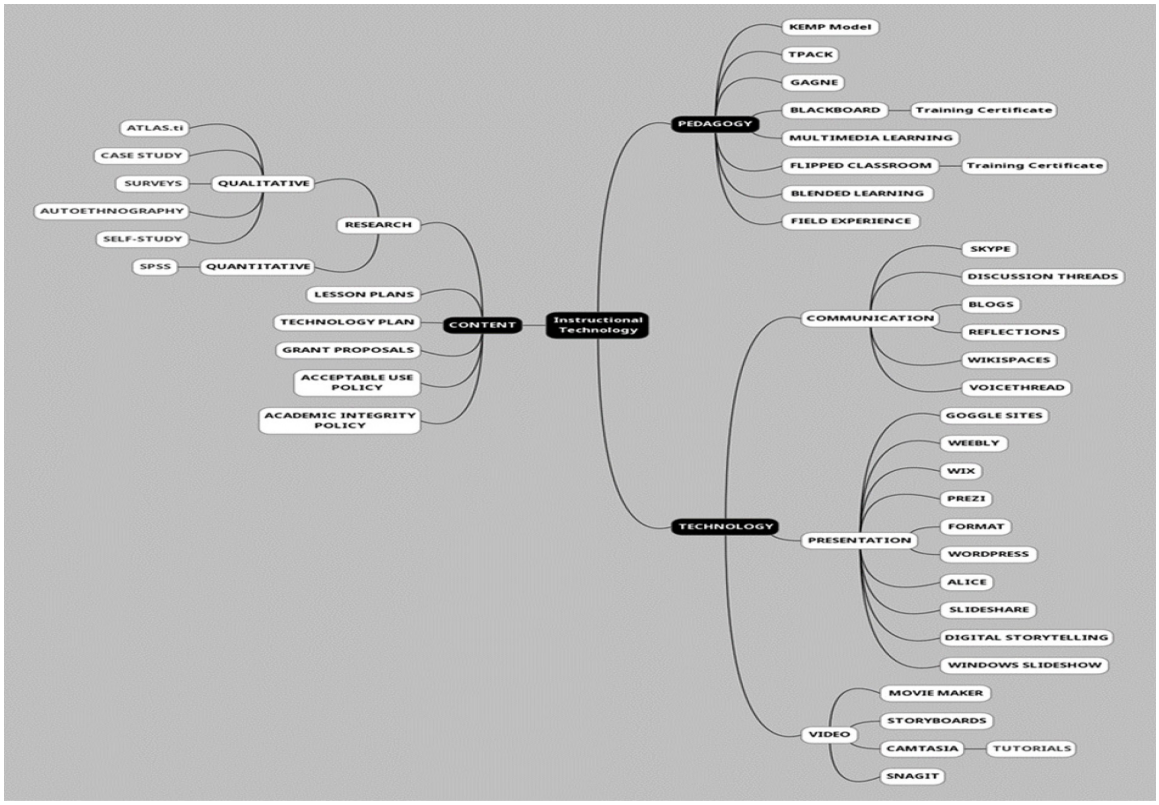
Furthermore, I took five additional courses at DU to become a certified K-12 IT specialist. We were required to create lesson plans using specific, rigorous standards. I continued to select theater-related topics for my assignments (see Appendix G). This was an approach to my course assignments I applied while enrolled at BU. My K-12 IT specialist certification provided a deeper comprehension of how I teach introductory theater using my technology PK. The IT specialist certification emphasized teaching skills, curriculum development, and educational technology training in the DU doctoral program. Figure 17 depicts 45 instructional tools I learned to use while enrolled in the Instructional Design EdD Degree Program at DU.

As a graduate student, I had access to an abundance of instructional hardware and software at DU and LHU, my place of employment. During this time, I also completed additional training and certification for Blackboard, LMS, and the flipped teaching and learning method.

I continued to use the same classroom technology hardware, including a document camera, projector and screen, SMART Board, and Polycom video room system for synchronous distance instruction. I utilized this classroom technology and Blackboard training from DU in my course delivery and development at LHU.

Figure 17

Instructional Tools (EdD Degree Program, DU)



NOTE: This figure depicts 45 instructional tools I learned to how use while enrolled in the Instructional Design EdD Degree Program at Duquesne University.

At DU, during my studies compared to BU, I was introduced to a completely different set of learning tools centered explicitly on TPK. I employed my enhanced TPK from DU in my introductory theater course at LHU.

As a doctoral student, I began to describe my research interest in integrating IT in theater courses with more confidence. I regularly discovered innovative ways to use a growing number of IT tools. I felt more confident with my knowledge of technology and my teaching methods. However, I never considered how I looked while teaching with technology from the learners' perspective in different learning environments. How I teach

using TPK based on the perception of my critical friends observing my instruction in photographs and brief videos is the focus of the next section of this theme,

Perceptions

The evolution of my TPK at DU was crucial because it provided me with additional technology tools to use in the ultimate laboratory, my classroom. However, I was unaware of how I looked during teaching while utilizing technology from the learners' perspective. This unique perspective emerged when I analyzed two brief videos from my teaching artifacts and six different photographic analysis images. These data were part of the six teaching artifacts collected for this self-study and examined by my critical friends. These two brief videos addressing my students feature (a) video one, a welcome to students in THEA110, and (b) video two, instructions for a course project exploring regional theaters. Below is an excerpt of my critical friend, Angela Whitney's response to my appearance in video one, which contains my welcome address to undergraduates in THEA110:

> "I do not get a sense of your personality from this video. To me, it feels very one dimensional. It is all information and no personality" (Teaching artifact video one, 217:2).

I was shocked by Angela's reaction to my appearance in this video. I thought I was friendly and inviting while sharing a heartfelt welcome address to my students. By comparison, in the next excerpt from a 1:10 video, my critical friend Mason Glenn's reaction was in keeping with what I hoped to convey to my students while welcoming them to THEA110: "You came across in the video as someone motivational and inspirational" (Teaching artifact video one, 216:7).

The second video, video two, contains instructions for a regional theater project the students must complete. In video two, my use of TPK in this course is evident by utilizing technology to create and upload the video to D2L, the LMS. The students must access the footage in D2L and use the LMS when completing and submitting this assignment. The following is an excerpt from video two, which is 2:26 minutes, highlighting my TPK:

> Hello, scholars. It is time for Project 2. For Project 2**,** you will be doing a theater profile, answering a set of questions based on LORT Theaters. These theaters belonged to the League of Regional Theaters. You should go to the discussion area if you have not done so and selected from a list of about 75 theaters listed in the D2L discussion area. (Teaching artifact video two 146:10, 10/28/19)

My teaching practice evaluation has included proficiency in the subject matter, presentation of objectives, classroom management, and student-on-task behaviors. These evaluations, which are peer observations, have been conducted many times during my 20-year career at LHU. However, no one has commented on my demeanor or mannerism while teaching with technology in a peer observation based on my instruction's images or videos. The opportunity to receive feedback from my critical friends about my appearance while using my TPK was invaluable and eye-opening. When I analyzed the photographs with my critical friends, I appear nervous, rigid, and distant from the students, both physically and emotionally. Table 8 contains quotes by one of my critical friends after analyzing photographs taken during two different semesters on both campuses. Based on the data, I was astonished by how far away I looked from the learners while teaching in these photographs. I was also amazed to see the formidable

barrier created by the technology cart laden with equipment. The technology cart built a metal fortress that I am looming behind while seemly addressing no one. I appear to be connected to and engaged with the surrounding classroom technology. My critical friends' photographic analysis left me wondering if I feel more confident teaching when operating technology instead of physically engaging with the learners. At WCU, ASU, and my first two years at LHU, I taught an introductory course in front of a chalkboard before implementing classroom technology. There was no barrier separating me from the learners while teaching in classrooms without IT. However, the chalkboard required me to continually turn my back to students, unlike teaching behind a technology cart.

Locations

The data revealed my teaching method and the impact of locations on my TPK in two key ways: (a) the different places where I studied IT as a graduate student and (b) the various sites where I use IT as an instructor. For instance, as an instructor using IT, the images in Table 8 illustrate how different each area looks and its varied resources. Before this self-study, I never considered how many different learning environments I have been exposed to while adapting to additional hardware and software challenges in these classroom locations. By comparison, as a doctoral student at DU, some of my classes were online, and some were face-to-face, which required me to travel from Lock Haven, PA to Pittsburgh, PA. I used the educational technology in the classrooms and computer labs at DU. Blackboard is the LMS at DU, which has different controls and protocols for operating technology in classrooms and computer labs. The DU IT was different from what I used at BU as a graduate student and at LHU.

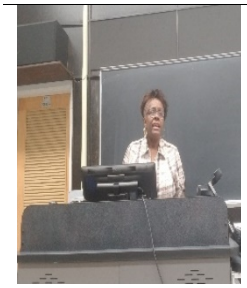
Adapting to these vastly different locations and conditions has developed my teaching practice flexibility in ways I never considered. I have no hesitation or reservation about using any modality to teach introductory theater, whether face-to-face, hybrid, or entirely online. There is a connection between teaching and studying IT at different locations using varied resources. My flexibility as a theater educator emerged, and my TPK strengthened dramatically. However, the way I appear when teaching in various places to others (i.e., critical friends, students, and peer evaluators) was never previously considered.

Technological Pedagogical Knowledge Findings

After analyzing the data and acquiring additional technological tools, developing my technological PK is constant. The development is due to how fast technology changes and evolves. There are always new hardware-software applications and devices that can be adapted or integrated into the curriculum. Because of this endless stream of technological offerings, it was rewarding to see how I apply these IT tools acquired during my doctoral studies at DU to my teaching practice utilized in different locations.

Table 8

Perceptions from Photo Analysis Images by a Critical Friend

Photos	Semester/Location	Technology Featured in Photos	Critical Friend Dr. Angela Whitney Perceptions
	Photo 2 summer 2019 LHU main campus 121 Sloan Band Room	Desktop computer, monitor, and document camera (l to r) on a technology cart.	You look more approachable if you are not behind that podium with all the technology. 77:3.
	Photo 3 fall 2019 LHU main campus Price Auditorium	Desktop computer, monitor, microphone, and control panel monitor (l to r) on a technology cart.	It is a very business-like persona the way that you are presenting yourself. I think some of it has to do with the fact that you are behind the podium. 77:10.
	Photo 5 fall 2019 LHU Clearfield Campus Building 2 A131	Document camera, control panel monitor, landline office phone, desktop computer, monitor, and desktop computer monitor (l to r) on a technology cart.	You have a professional, knowledgeable demeanor in the way you are presenting yourself. It is coming across not only in your facial expressions but also in how your attire. 77:13.

I quickly learned the theoretical and hypothetical examples that we used in class when studying IT were essential. However, applying what I learned at DU immediately to my courses at LHU was extremely gratifying. These applications of new knowledge and techniques provided an instant opportunity to see what worked and what did not work. These new skills also helped me to improve or edit content to suit my teaching practice and increase the arsenal of tools at my disposal to teach theater with technology.

Now I address my three research questions from a newly informed perspective after discovering the connection between how I teach using TPK and the data. For RQ1, "How do I utilize IT in theater education?" The answer to RQ1 is as follows:

- By consistently devise innovative ways to use instructional technology to teach theater using Desire2Learn, an LMS and features which include the dropbox, discussion tool, and Video Note.
- By integrating related software and multimedia applications such as narrated text, videos, and related images into my introductory theater course curriculum,
- By hiding behind technological hardware while engaging with the classroom equipment, according to my critical friends' observations.

These insightful observations are the results of the careful examination of images featuring me teaching in more than one classroom on both campuses. Before this self-study, I felt confident that I was delivering the curriculum engagingly and concisely for learners to comprehend. I now realize that utilizing IT involves proficiency with technology and pedagogical approaches suited for theater education learners. However, my interaction with technology can prevent me from physically connecting and engaging with the learners, particularly in the face-to-face learning environment.

For RQ2, "How does TPACK as a theoretical framework inform an understanding of my teaching practices?" TPACK informs my teaching practice in ways I was previously unaware of as follows:

- When utilizing TPACK, my emotional state during each class period was like riding a roller coaster. I have unconsciously accepted this emotional state as part of my teaching practice.
- When faced with using TPACK I am frequently anxious before and during each class. However, I experience an immediate release of this anxiety after each class.
- After each class based on my reflections I am much more productive than I realized when utilizing TPACK.

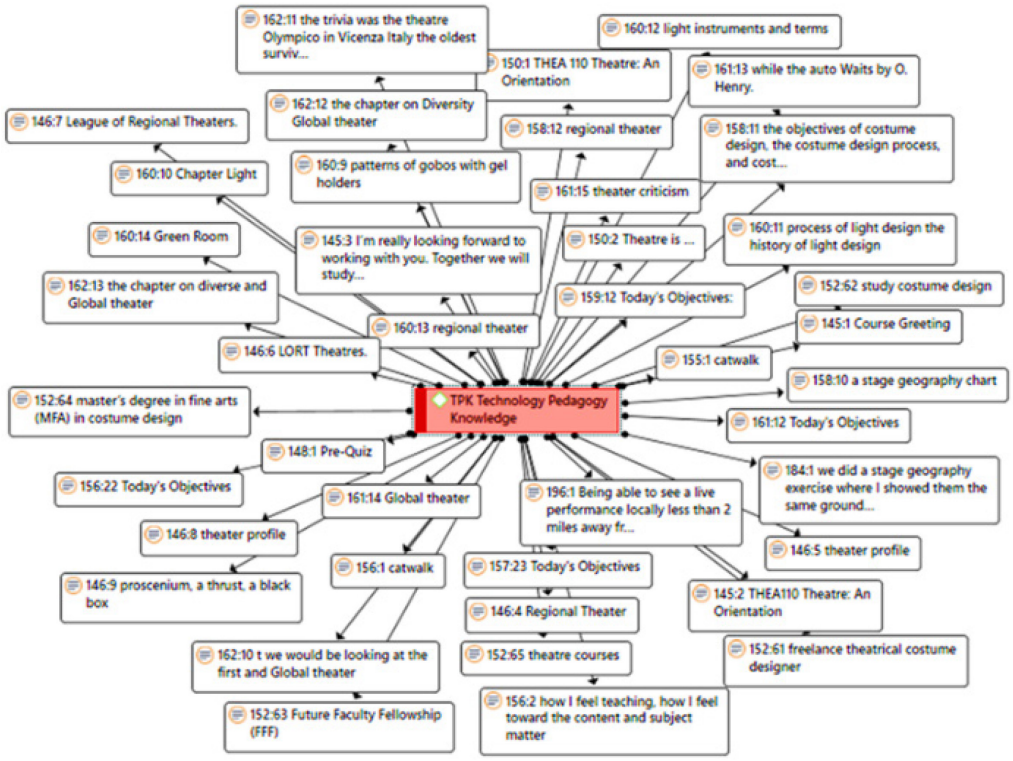
TPACK, as a theoretical framework, also informs how I teach cognitively. I have spent many years using TPACK and feel extremely proficient with the technology, pedagogy, and content matter needed to teach theater with technology to learners. I also possess a working knowledge of the theories related to technology, pedagogy, and content matter. However, based on the data, I have not measured or considered how others perceive my teaching practices using sources related to teaching with TPACK.

Finally, with RQ3, how does TPACK as a theoretical framework challenge my perspectives and experiences regarding the intersection of three primary forms of knowledge: CK, PK, and TK? I have discovered the following:

- The practical application of TPACK is integrated and highly evident in my teaching artifacts and teaching practice.
- I have been introduced to an experienced theater educator with a passionate perspective when teaching with TPACK while manifesting a level of confidence that is not readily conveyed.

Figure 18

Atlas.ti Organic Layout of TPK Codes



Note: This figure depicts an organic network layout created with Atlas.ti of codes generated during the second coding cycle. These codes illustrate how I teach introductory theater using my Technological Pedagogical Knowledge.

Summary

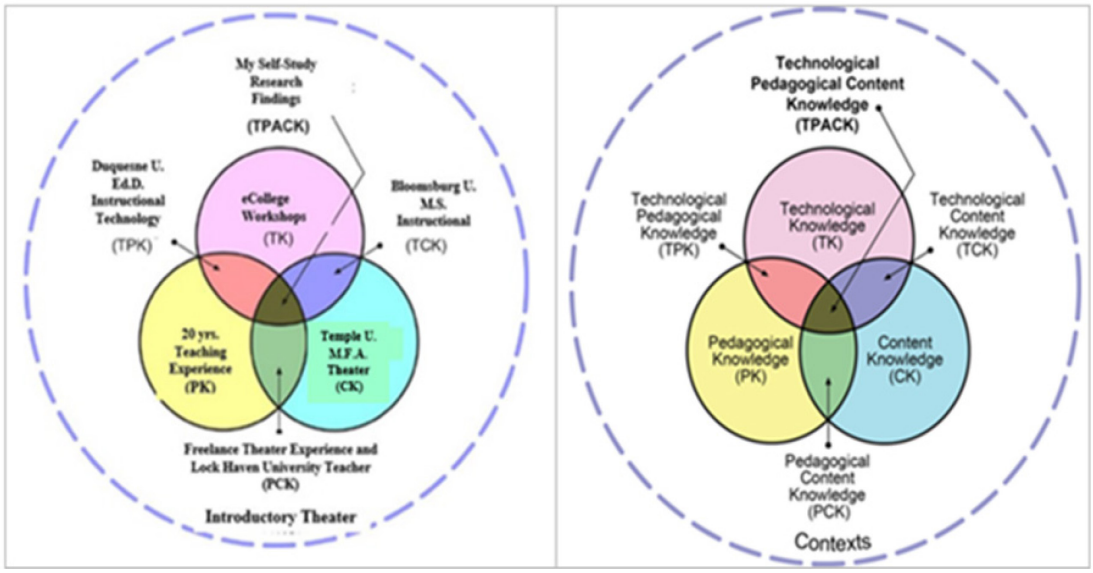
The examination of each of these TPACK components reveals layers of academic and PD I have exercised over several years, including my TPK growth by my doctoral studies at DU. The preparation and resources present new software and hardware applications, new devices, and even more varied learning environments to implement my TPK. These learning environments include the DU campus in Pittsburgh, PA., and LHU in Lock Haven, PA. My decision to take additional courses at DU to become a certified K-12 IT specialist added to my TPK arsenal teaching techniques. I adapted some of these 45 tools for learners in higher education. The biggest revelation was my appearance and

my critical friends' perceptions while observing how I teach using TPK in videos and photographs. These findings provide an additional method for improving TPK using multimedia as a powerfully informative resource for self-evaluation. The next section discusses the fourth and final theme's intersections of TCK, TPK, and PCK.

Theme 4 Meeting Myself as a Scholarly Practitioner: Using IT to Teach Theater (TPACK)

Figure 19

Reimagined TPACK Model (l) and Original TPACK Model (r)



TPACK is a complex interaction among three knowledge bodies: content pedagogy and technology. The business of these bodies of knowledge, both theoretical and in practice, produces the types of flexible knowledge needed to successfully integrate technology use into teaching (Koehler & Mishra, 2007, p. 60).

For this theme:

- I discuss meeting myself as a scholarly practitioner while addressing these categories: analysis, actions, assessment.

- I answer research questions one, two, and three.
- Finally, I discuss findings from the self-reporting TPACK survey and four teaching artifacts (a) a pre-test from my course, (b) a course assignment based on a one-act play, (c) a student profile assignment, and (d) a theater trivia based on the term catwalk with images).

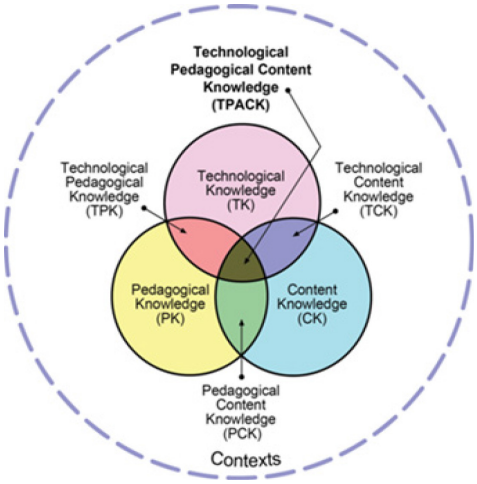
Actions

Conducting this self-study has revealed an unexpected answer to research question one: How do I utilize IT in theater education? The entity that posed this question met a theater educator using IT. My objective was to gain a deeper understanding of (a) how I utilize IT in theater education and (b) how the TPACK framework informed and challenged my perspectives and expertise with the intersection of CK, PK, and TK.

TPACK is a complex interaction among three knowledge bodies: content pedagogy and technology (Koehler & Mishra, 2007, p. 60). On the TPACK model diagram, the outer-dotted circle is labeled “contexts” (see Figure 20). By simultaneously integrating knowledge of technology, pedagogy, content, and the contexts within which they function, expert teachers bring TPACK into play any time they teach (Mishra & Koehler, 2006). Learning environments that allow students and teachers to explore technologies concerning the subject matter in authentic contexts are often most useful (Mishra & Koehler, 2006).

Figure 20

The Technological Pedagogical Content Knowledge Framework



However, I was using TPACK before this self-study as if the theoretical framework consisted of one static emblem depicted in the original model. My approach to using TPACK to teach theater was boundless and undocumented. I did not consider the TPACK theoretical framework's seven components' unique and dynamic nature until meeting myself.

The following is my response to research question one: How do I utilize IT in theater education? This self-study has introduced me to Ramona Broomer, a reflective theater educator and self-study researcher. She is often momentarily anxious before each class and exhibits a pensive demeanor while unconsciously hidden behind a partial wall of IT to teach introductory theater.

To address my third research question, I took a closer look at the TPACK model by customizing the diagram based on the findings from this self-study and what I discovered about myself as a theater educator. Research question three and the reimagined TPACK diagram are in Figure 21.

How does TPACK challenge my expertise regarding the intersection of these forms of knowledge: CK, PK, and TK?

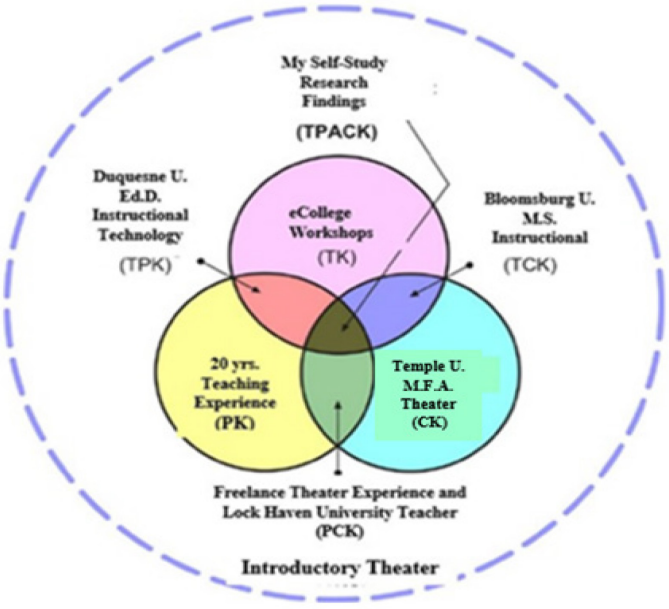
Self-study research has introduced me to the full meaning of TPACK's theoretical framework by personalizing the components and examining my journey as a theater educator. This self-study has also provided an unexpected introduction to an experienced educator passionate about teaching theater using TPACK with a level of unrealized confidence.

Analysis

Analyzing the data and reimaging the TPACK model revealed a surprising connection to my teaching practice, the resources I use, and the years of training and expertise I have amassed to address research question two confidently. How does TPACK as a theoretical framework inform an understanding of my teaching practices?

Figure 21

Reimagined TPACK Model



My self-study research has enabled me to directly attribute the effect of using TPACK in introductory theater as the primary source, informing my teaching practices.

Before my research, the response to question two would have been in the form of a list of things I did to integrate technology. For example, I accessed the LMS, downloaded software, and turned on the projector and technology cart computer. By comparison, the TPACK theoretical framework informs my teaching practices by providing a reliable process to replicate other courses or duplicate for other educators to follow. The following compares each of the seven components in the original and reimagined TPACK model with the intersection of three primary forms of knowledge: CK, PK, and TK (Table 9).

Pedagogical CK covers the core business of teaching, learning, curriculum, assessment, and reporting, such as the conditions that promote learning and the links among curriculum, assessment, and pedagogy (Koehler & Mishra, 2009).

TCK is the proficiency in teaching the subject matter with a deep understanding of how the subject matter can be changed by applying technologies (Koehler & Mishra, 2009). TPK is the knowledge of the existence, components, and capabilities of various technologies used in teaching and learning settings.

Table 9

Comparison of Text in Reimagined and Original TPACK Model

	Reimagined TPACK	Original TPACK	Artifacts
Context	The context of my work as an educator is in an introductory theater.	It is necessary to teach technology in contexts that honor the rich connections between technology, the subject matter (content), and the means of teaching it (the pedagogy) (Koehler & Mishra, p. 95, 2005).	I can combine appropriate methods, techniques, and technologies by evaluating their attributes to present the content effectively (Self-reporting survey, 124:4, 07/22/19)
PK	PK has a foundation in my 20 years of teaching experience in higher education	Pedagogical knowledge	T/F The summary of the plot of a play is called the synopsis. (Pre-test, 83:9)
TK	TK is rooted in eCollege workshops, where I learned to use IT initially.	Technological knowledge	Working on the *catwalk* (see Figure 22) has safety issues addressed to protect the cast, audience, and technicians installing equipment. (Theater trivia, 79:19)
CK	CK is the subject or discipline of theater. TU MFA	Content knowledge	Based upon your knowledge and experience to date, write a paragraph below beginning with "Theater is…" (Student profile 80:14)
PCK	PCK is directly related to my professional and academic theater experience.	Pedagogical content knowledge	Please list three plays in which you appeared as a performer. Include the names of the characters you played in each production. (Student profile 80:14)
TCK	TCK was validated after gaining theoretical underpinnings at Bloomsburg University, where I obtained a master's in IT.	Technological content knowledge	T/F To focus stage lights means to make them sharper and visible. (Pre-test, 82:11)
TPK	TPK was substantiated through my studies while obtaining my EdD in IT at DU.	Technological pedagogical knowledge	The catwalk is an elevated platform located directly over the audience but out of view, providing behind-the-scenes access to lights and sound equipment. (Theater trivia, 79:8)
TPACK	My self-study research findings	Technological pedagogical and CK	I can use technology to determine students' needs related to a content area in the pre-teaching process. (Self-reporting survey, 125:8, 12/04/19)

Conversely, knowing how teaching might change due to using technologies in specific ways (Mishra & Koehler, 2006), technological pedagogical and CK form the complex interaction among three bodies of knowledge, content pedagogy, and technology.

Figure 22

Image from the Teaching Artifact Theater Trivia: Catwalk

Assessment

I administered the TPACK self-reporting survey four times, at the beginning and end of the summer and fall semesters. The 33 items in this self-reporting survey covered four areas: (a) designing instruction, (b) implementing instruction, (c) ethical awareness, and (d) proficiency.

There were 32 of the 33 items related to teaching with TPACK that I strongly agreed with within the self-reporting survey. In the area of designing instruction, one of the 32 things I strongly agreed with was: "I can plan the teaching and learning process according to available technological resources" (Self-reporting survey, 123:2, July 22,19).

The survey created a checklist of duties I have often performed when designing or planning IT using TPACK. The self-reporting survey also contained a list of suggested activities that I have employed during my teaching career and collected data for this study. The following example is another one of the 32 items I strongly agreed with but this time in implementation:

> "I can use technology for implementing educational activities such as homework, projects, etc." (Self-reporting survey, 122:14, June 24, 2019).

In the area of ethics, which was related to the ethical use of technology to teach a subject using TPACK, I strongly agreed with the following item that mentions modeling appropriate codes of ethics for students:

> "I can be a suitable model for the students in following codes of ethics with the use of technology in my teaching I can use technology for implementing educational activities such as homework, projects, etc." (Self-reporting survey, 124:19, Dec 4, 2019).

The one item of 33 I disagreed with was under the area of proficiency. It mentions cross-disciplinary efforts when problem-solving while using technology. I do not encounter this dynamic when I prepare my instruction on campus or while implementing TPACK.

> "I can cooperate with other disciplines regarding the use of technology to solve problems encountered in the process of presenting content." (Self-reporting survey, 122:4, Aug. 26, 2019)

My problem-solving skills increased throughout my teaching practice because I did not have colleagues who used IT in other disciplines in my department or immediate vicinity on campus. I am also not near instructors who are teaching with technology to seek their assistance. This excerpt is from the self-reporting survey from the area of proficiency conversely that I agreed with:

> "I can update an instructional material (paper-based, electronic or multimedia materials, etc.) built on the needs (students, environment, duration, etc.) by using technology" (Self-reporting survey, 122:10, June 24, 2019).

Seeing how my use of TPACK aligned with items in the self-reporting survey was rewarding. After considering this self-reporting survey, I contemplated research question three: How does TPACK as a theoretical framework challenge my perspectives and expertise regarding the intersection of three primary forms of knowledge: CK, PK, and TK? This survey addresses four different areas: (a) designing instruction, (b) implementing instruction, (c) ethical awareness, and (d) proficiency. The survey challenged my perspectives regarding the intersection of the three primary forms of PK, TK, and CK in ways I never considered. It is an excellent way to identify skills that require a tune-up or remediation.

TPACK Findings

My understanding of how this theoretical framework informs my teaching practice is directly related to my education and experiences within the seven variables and four intersecting knowledge areas of the TPACK framework. For example, long before I began my teaching career in higher education, I developed a passion and genuine interest in theater, my CK. I possess enthusiasm for my CK, an essential component for teaching and reaching learners while using various resources. My course curriculum benefits from a perpetual approach to updating and improving the content to suit learners' needs. It is impossible to hide my interest and passion for my CK as a lifelong learner with a strong commitment to sharing this subject matter with others. My students can gain an appreciation for theater and knowledge of this subject based on my CK. My PK

was closely analyzed and scrutinized while conducting this research. This process helped me to see that the longevity of my teaching practice has its benefits. My PK is continually evolving based on the reflective inquiry and constructive criticism I received during my career. This constructive criticism comes from student and peer observations required by my employers or instruments like the self-reporting survey I used for this study.

I also used a wide range of assessment measures to gauge student success with all aspects of my teaching. These various assessment measures help me to improve and continually build my PK. The circle surrounding PK in Figure 21 is an excellent graphic representation of my teaching and learning process. In a circular pattern, I am continually teaching while students provide me with knowledge fueling my PK.

Innovative teaching artifacts are beneficial to my teaching practice. I learned how to employ several different teaching artifacts from my academic and professional experiences. It was rewarding to see how the teaching artifacts I used and my training aligned with the survey categories and questions on the survey in the areas of (a) designing instruction, (b) implementing instruction, (c) ethical awareness, and (d) proficiency. This self-study reflective inquiry introduced me to a scholarly practitioner with an incredible arsenal of teaching artifacts that inform and enhance my teaching practice.

I look forward to gaining new areas of growth and self-discovery from having met the instructor.

Summary

As a theoretical framework, TPACK is concerned with the intersection between three bodies of knowledge: PK, TK, and CK. Its value as a framework is in applying

pedagogical techniques that utilize technologies to teach theoretical content effectively. The practical application of TPACK is in my teaching artifacts and teaching practice. I have learned from experience that effective teaching and learning cannot take place if the technology fails or malfunctions. I have learned how to resolve technical glitches like the issues mentioned in this excerpt from the TPACK self-reporting survey.

I address research questions one, two, and three with text-based and tangible examples in this theme. Analyzing the findings revealed how I use all aspects of the TPACK framework from an informed knowledge base. The key is to start with a specific context, then build skills and knowledge in the seven variables and four intersecting knowledge areas. This self-study introduced me to a theater educator with an arsenal of tools I never fully contemplated. My research has highlighted the importance of TPACK in my teaching practice and PD.

Chapter 5

Discussion, Implications, and Recommendations

The purpose of this self-study was to explore my process of integrating IT into introductory theater courses using TPACK as a theoretical framework. Chapter 3 analyzed the data that I have collected, and Chapter 4 addressed my findings. This chapter includes a brief overview and discussion of the significant conclusions and implications that may be valuable for policy, research, and practice. These findings will help scholarly practitioners understand the relationship between instructional content, learning activities, assessment, and effective technology integration. The chapter closes with a discussion of the study's limitations, delimitations, recommendations for future research, and my final thoughts related to these questions:

RQ1: How do I utilize IT in theater education?

RQ2: How does TPACK as a theoretical framework inform an understanding of my teaching practices?

RQ3: How does TPACK as a theoretical framework challenge my perspectives and experiences regarding the intersection of three primary forms of knowledge: CK, PK, and TK?

Overview of Relevant Aspects

My objective was to apply a research approach to primary data to discover (a) how I use IT in theater education and (b) how the TPACK framework apprises and tests my views and skills within the intersection of CK, PK, and TK. The research questions allowed me to focus on three primary areas: (a) my instructional practice, (b) my PD and

the experience I have and have gained in technology integration, and (c) the use of TPACK in theater education, providing a scholarly-practitioner perspective.

The research questions focused on (a) my instructional practice; (b) my PD and the experience I have and have gained in technology integration in the liberal arts over 15 years; and (c) the use of TPACK in theater education, providing a scholarly practitioner viewpoint. My goal was to gain insight into (a) how I apply IT in theater education; and (b) how the TPACK framework apprises and tests my views and skills within the context of the intersection of CK, PK, and TK.

Data obtained from the following primary sources include (a) personal narrative, (b) photographic analysis, (c) self-reporting survey, (d) teaching artifacts, and (e) reflections from my teaching practice. The scope of the research was delineated to incorporate, exclusively, (a) TPACK as the theoretical framework; (b) an introductory theater class, utilizing IT at LHU in central Pennsylvania; and (c) teaching undergraduates at the institution above.

The theoretical model I chose to base this study on is TPACK. TPACK is concerned with the intersection between three bodies of knowledge: (a) TK, (b) PK, and CK. TPACK was selected, despite being a new theory and still in need of refinement (Angeli & Valanides, 2009), as it forms a good base for combining teaching and technology (Setiawan et al., 2018). TPACK is a framework for applying pedagogical techniques that utilize technologies to teach content effectively.

Technology knowledge involves understanding how to operate a computer and applicable software. Pedagogy knowledge represents knowledge of teaching and learning processes and practices. CK denotes knowledge of the subject matter. Pedagogical

content knowledge relates to integrating knowledge of teaching and learning (PK) and curriculum, assessment, and reporting (CK) (Koehler & Mishra, 2009). TCK involves a deep appreciation of the opportunities provided by technology (TK) and applying it to an existing and profound competence of CK in the subject matter (CK) (Koehler & Mishra, 2009). TPK is the knowledge and awareness of relevant aspects of suitable technologies for the teaching and learning context (TK) and knowledge of the outcomes of this technology from a pedagogical basis (PK), as explained by Koehler and Mishra (2009).

Introduction to Discussion of Results

This chapter intends to discuss the findings of Chapter 4 and their relationship to the four themes from the self-study of technology within theater education. They are then compared with other literature sources within the same context, emphasizing the TPACK framework. Below, the four themes are briefly discussed.

Theme One: How I Teach: Understanding my PCK as a Theater Educator

The use of pedagogy in my use of IT for theater education showed a great deal of value in the TPACK framework and has even pushed me to reinvent my teaching method. Also, my CK of theater allowed me to bring an outside perspective. I am now aware of the effort required to administer the content I teach. Teaching with TPACK is and only fully understood once I conducted this self-study. I have a unique perspective of what goes on behind the scenes in theater from my past freelance experience, and I have incorporated this practical theater experience into my teaching practice more than I realized. PK, CK, and PCK are highly beneficial to my area of expertise and field of study, in addition to other academics employing the TPACK framework in other contexts. Herring et al. (2016) also spoke about teachers taking on different teaching perspectives

once trying the TPACK framework, implying that this impacts all educators. Often a teacher's knowledge is based on personal experience and, therefore, taken forward into the classroom. Teachers provide learners with content and PK that is not always available in textbooks. The unique and confidential scope of this "content-specific" (Herring et al., 2016, p. 379) teaching method is consistent with my perception of the TPACK framework and how it helped me see the benefits of utilizing IT.

Theme Two: What I Teach: Understanding my Technological Content Knowledge as a Theater Educator

Once I had combined my experiences and knowledge with my academic theater background, my TK emerged; however, the process was not without its difficulties. As my practice has shown, many professors do not use technology in their classrooms or seem unwilling to update their knowledge to make their course-related duties easier.

From the results and the increase in enrollment, technology integration has shown that TPACK is more effective than I realized, and students seem drawn to a learning environment with IT. Additionally, utilizing IT with the curriculum is a beneficial method to engage learners and develop more dynamic, interactive content. Integrating technology into my theater courses enhanced students' learning. Other academics agree with this notion that the close connection of the framework's design developed the teachers' knowledge. This knowledge improved the overall effectiveness of teaching and learning strategies used in the classrooms (Mishra, 2019).

Theme Three: How I Teach: Understanding my Technology Pedagogical Knowledge as a Theater Educator

Once I had undergone most of the self-study process, it was easier to measure my technological capabilities. In learning to prepare for classes from my PCK from theme one, I incorporated 45 instructional design tools that initially complimented my research goals as a graduate student and enriched my professional teaching practice. I gained knowledge of the tools that best work in various circumstances, such as teaching modalities and available technological resources. I improved my understanding of specific technology that incorporates the two primary aspects of TPK. Subsequently, these skills allowed me to develop more theater-based teaching artifacts centered around my students' needs and expectations. Most of my experience taught me that refining my practice and utilizing technology to mitigate issues has become a significant benefit of incorporating TPACK into the curricula. In identifying this theme, I asked myself, can an objective measure of PCK be put in place of the current TPACK tools? Where approaches have emphasized TK, other authors have discussed vital factors that connect technology, pedagogy, and CK. The TPACK framework encompasses the broader context of IT. This suggestion focuses on industry-specific frameworks, where alignment between PCK factors is categorized accordingly (Drummond & Sweeney, 2016).

Theme Four: Meeting Myself as a Scholarly A Scholarly Practitioner: Using IT to Teach Theater (TPACK)

This section of my self-study reflects my influence over my theater students by using TPACK through instructional education design as I understand it. My CK's perception is evident through the course that my career has taken, and the experiences

discussed in the three themes above have shown me something not previously visible. My capability was always there, I just needed to implement it, and now that I have, I can evolve and advance my skills. Additionally, my PK of the theater and performing arts has allowed me to observe teaching IT through a unique perspective that not many others have. I have had exposure to technological advances, difficulties, and improvements. My TK, PK, and CK improve as I develop the TPACK framework and implement its vital elements into my teaching curriculum.

All these aspects arose as my skills improved, and I gained confidence in my IT application. It started with my PK strengthening, and I realized that I possessed the necessary knowledge and skills to educate my students effectively. I gained TK when exposed to larger course enrollment that utilized technology. Supporting teacher pedagogical change, CK, and technological capability are critical to ensure that TPACK achieves its maximum capabilities. In a fast-evolving, ever-emerging technology environment, it is untenable for higher education to continue training instructors on how to "use" technology. Faculty need to learn "why" technology can aid teaching and learning based on theory and practice (Johnson et al., 2012, p.67)

Discussion of the Findings

The personal narrative confirmed challenges and degrees of growth, strengthening my knowledge of the subject matter, theater. The personal narrative also helped me connect to my current use of TPACK, which relies heavily on an ongoing proficiency in the subject matter directly related to how I teach the curriculum. Initially, I approached teaching as a separate endeavor from my professional career in theater. Through self-

study, I connected the dots and understood the impact of my PCK on my teaching practice and overall development as a theater educator. From my perspective, the effective use of TPACK comes from a combination of formal and informal skills, training, expertise, and education rooted in strong CK. The use of pedagogy when utilizing IT for theater education showed a great deal of value gained from the TPACK framework and pushed me to rethink and revise my teaching methods continually. My CK of theater from my professional background allowed me to bring an outside perspective of a subject conveyed in my teaching style. Understanding the practical aspects of working professionally in theater and teaching theater has created a strong foundation for instruction based on the TPACK framework. I am now aware of the required effort and administration as a scholarly practitioner. Therefore, I value the content I teach and how I develop myself continually as a theater educator.

For example, my use of text-based and multimedia teaching artifacts allows students to read, watch, and listen to aspects of real and virtual theatrical elements within the context of my instruction. They actively engage with the course content instead of my students solely relying on books or static learning artifacts that are less dynamic. Initially, my PCK emerged early in my practice while teaching theater in higher education without technology. The TPACK model's limitation is that the framework itself is complex and dynamic in its core function. However, as Shulman and Gudmundsdottir (1987) observed, this is advantageous to the way we approach technology and the educational process (Sharma & Sharma, 2018). It changes our way of thinking and reasoning; therefore, innovative practices can take place.

From my many years of working in theater, Herring et al. (2016) spoke about teachers taking on different teaching perspectives once they tried the TPACK framework, alluding that it impacts all educators. I have benefited greatly from the flexibility and creativity afforded by teaching theater using TPACK. Frequently, a teachers' knowledge is based on personal experience. This knowledge subsequently provides students with content and pedagogical expertise not readily available in textbooks.

My TCK transformed after completing my weekly reflections, analyzing the course content, and increased teaching with technology. After writing weekly reflections for 20 weeks at the end of each class, I learned about unrealized anxiety stemming from utilizing my TCK. Once I integrated my academic and professional experiences into my teaching practice, I had to master my TCK with available technical resources. Technology resources include computers and specialized software, network-based communication systems, and other equipment and infrastructure (Gachago et al., 2013). This proficiency was necessary and encouraged by my employer because of emerging classroom technology and integration. Participating in PD workshops directly impacted what I teach as I began teaching theater using TCK. After completing this self-study of my practice, I have discovered that TPACK is a relatively new theory that is not yet generally accepted and requires a more robust theoretical conceptualization (Angeli & Valanides, 2009). With the increased implementation of classroom technology with a wide range of hardware and software, my TK inadvertently grew. I gradually realized that what I teach required the ability to deliver instruction, even alongside having troubleshooting skills, further developing the framework's TCK component. Aldunate and Nussbaum (2013) showed that teachers might believe they are not computer smart, tech-savvy, or

technology capable. Teachers can also express a lack of uncertainty on using a program or resolving issues if they arise while using a program (Kurt, 2017).

Based on what I teach using TCK, the findings suggest the TPACK framework is more effective than I previously thought. Learners seem drawn to an introductory theater course that includes the integration of IT. Technological integration rests on knowledge of technology and pedagogical and content awareness (Hastings, 2009). Additionally, utilizing multimedia resources and relevant software to illustrate a topic is beneficial for academically engaging students. Standard textbooks or simply lecturing is not as effective. Developing TPK requires a proper understanding of the potential benefits and limitations of technologies used within certain learning activities (Archambault & Barnett, 2010). Learning technology also assists with CK and builds onto the overarching concept of TPACK. Other academics agree that the close connection of the framework's design developed the teachers' knowledge, improving the overall effectiveness of teaching and learning strategies used in the classrooms (Mishra, 2009). As a result of the findings, I am now aware of my inclination to prepare an overabundance of course material using IT for fear of running out of available content. Last, my reflections after my classes show that I am more productive overall than I realized with my course content development and delivery using TPACK. Customization of TK comes from trial and error by consistently learning new ways to use technology and regularly teaching theater with technology. However, I was amazed at the emotions I often mentioned in my reflective writing. My reflections indicated that before and during my classes, when faced with using technology or anticipating my students using online learning tools, I was frequently anxious and concerned but immediately relieved when class was over. When utilizing IT,

my emotional state was a daily roller coaster. I have unconsciously and routinely accepted it as part of my practice. Self-study PD opportunities for faculty to work with critical friends on real and imagined emotions associated with utilizing IT, such as anxiety, apprehension, aversion, disdain, fatigue, fear, or incompetency, could be beneficial and meaningful.

Implications for Policy

My research can influence existing education policies by introducing incentives or requiring merit-based training for faculty to increase the total percentage of qualified educators successfully teaching technology. Schools can no longer remain competitive by assuming employees receive adequate training. For faculty who receive training and implement IT, the process and subsequent task of preparing course content are very time-consuming. Therefore, faculty should receive compensation as an incentive to ensure quality and continuity in delivery.

Existing education policies are influenced my research by providing financial resources that fund software and hardware on university campuses. My technological skills grew with an opportunity to experiment with various tools because of generous funding to provide new and updated classroom technology.

Implications for Research

The findings may be beneficial to undergraduates and non-traditional adult learners studying online by exploring the impact of TPACK while pursuing specific badges, certificates, or associate degrees. The findings could generate more research in fine and performing arts-based courses that use TPACK for lectures, studio, practicum-based theater, art, music, and dance courses.

Implications for Practice

Novice and tenured faculty should receive PD opportunities to explore self-study research that positively impacts their teaching practice. This methodology can help educators to serve as critical friends in pairs according to their length of service to refine and revive their skills in teaching with technology. Higher education instructors could benefit from PD opportunities to acquire skills using TPACK based on specific curricular needs or gaps in skill sets. There are also collaborative interdisciplinary opportunities for work with colleagues on innovative cross-curricular content with technology integration.

Proficiency in using LMSs, IT software, and hardware with reflective practice journals to document challenges and trials for educators is another idea. Additional ideas include developing lesson plans using components of TPACK with immediate feedback for teachers working with trainers to cultivate technology-infused lessons, objectives, and assessment measures. Alternatively, peer mentoring could pair advanced IT users with novice instructors to create support networks. Last, TPACK lessons to strengthen and identify specific contexts or subject areas for educators in various disciplines using IT tools. Also, training workshops to provide practice and instruction each semester for progressive continued skills building.

Limitations

The only modality was a hybrid model of instruction, with 50% of the course delivered online and 50% delivered face-to-face during all three semesters I conducted research. Additional modalities for teaching introductory theater were not considered, such as synchronous or asynchronous online instruction, 100% face-to-face, use of a streaming video platform for training such as Kaltura or Opencast or Hyflex learning In a

HyFlex course, students are presented with a choice with each class session – whether to attend face-to-face or participate online (Malczyk, 2019, p.414).. I did not investigate video conferencing platforms such as Zoom, Skype, Microsoft Teams, Google Meet, GoToMeeting, and Adobe Connect to teach theater with TPACK.

Another limitation was the meeting length of each semester. For example, during winter intersession, an accelerated three-week semester at LHU between late December and early January, this course length was not analyzed. I gathered data from a 5-week summer and a 15-week fall semester. However, a 15-week spring semester was another option I did not explore in this study. A fundamental limitation was this study did not investigate IT using TPACK in other undergraduate theater courses that I teach, such as Costume Design, Stage Makeup, Theater History, Dramatic Literature, Creative Dramatics, and Women in Theater. Additionally, teaching introductory theater modalities such as fully online, 100% face-to-face, or Hyflex using Zoom were not explored. The only modality examined was a hybrid model of instruction, with 50% of the course delivered online and 50% delivered face-to-face.

This study omitted the following student-related data, which was a limitation:

- Attendance,
- computer literacy,
- undergraduate class rank (e.g., senior, junior, sophomore),
- enrollment numbers,
- course persistence,
- instructor evaluations,
- course GPA,

- gender, and
- expertise with online learning.

Furthermore, this study did not include a TPACK survey measuring student proficiency, perceptions, and perspective learning with IT. Other self-study methods, such as a developmental portfolio, living educational theory, collaborative self-study, and a memory work self-study, for example, were not employed. An inadvertent researcher bias based on my affinity for the course content and IT was a significant limitation. The increased involvement of critical friends throughout the entire process providing support and constructive criticism by observing my teaching, reviewing my reflections, personal narrative, and assessing my teaching artifacts were other limitations.

Delimitations

This self-study focused on my practice teaching an introductory theater course that integrated IT. I taught introductory theater for 18 years using technology at LHU, longer than other courses under my instruction. Therefore, this was the only course that I analyzed for this study. Technological pedagogical content knowledge was the sole theoretical framework applied in my research. Undergraduates at LHU, a Pennsylvania State System school located in Clinton County, Pennsylvania, were the only audience for the instruction I prepared, delivered, and analyzed.

Recommendations for Future Research

The process of conducting this study has led me to contemplate several suggestions for future research, including an arts-based self-study with theater educators exploring the integration of IT using TPACK in costume, set, light, or sound design courses. The IT in these design courses includes QLab, AutoCAD, Sound Forge, and

Vectorworks software, to name a few. This research involved validating and administering a student satisfaction survey based on TPACK in introductory theater courses to gather the learner's skills and perspectives.

There has been an increase in the use of online learning for students and instructors. Since university administrators and academic managers make significant decisions about the acquisition of classroom technology, a study assessing the use of instructional software, hardware, devices, and university administrators' LMSs would be useful. This study could provide a greater sense of financial accountability, empathy, and relatability to instructors and students' needs concerning online education.

Exploring the use of TPACK and LMSs such as Desire2Learn, Canvas, and Blackboard by educators to teach fine and performing arts content and subject areas should be conducted by researchers. TPACK and self-study research in higher education in theater arts administration, dramaturgy, stage management, production, and stage direction using different modalities like asynchronous and synchronous online instruction are worth exploring. Additional areas for future research include a study that focuses on multimedia learning for the performing and fine arts using TPACK. A study investigating the effects of teaching assigned undesirable content in adverse learning environments using TPACK would also be useful.

Conclusion

My self-study journey has been far-reaching and beyond what I expected to learn about myself, my practice, and my ability to teach 21st-century learners. When instructing with technology, I now recognize how interrelated my use of the TPACK components and context are even though I have developed and expanded these elements

in different stages, conditions, and settings. From conducting this self-study, I have a much clearer understanding of the TPACK framework dynamics, specifically how TPACK has strengthened my instruction and allowed me to develop more advanced methods of integrating technology into my teaching practice.

I have identified factors that affected my perceptions and experiences using TPACK by studying my practice and the unconventional aspects of this research method. The perception of critical friends observing my way was unexpected and provided an avenue for improving my practice through collaborative, constructive criticism. I use all seven components of TPACK in the context of introductory theater in a seamless manner that I was previously unaware of before this endeavor. It became apparent how valuable reflection is to my growth and understanding of the practical approach to my instruction and potential for continual growth as a theater educator. The importance of reflective practice emerged from this study and is something that I will continue to pursue. Self-study research has been invaluable and will play a significant part in my evolution as a scholarly practitioner. I met an anxious, overprepared educator with a passion for teaching and learning theater with Instructional Technology who embarked upon this unique, life-changing journey

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Appendix A

isilk@anadolu.edu.tr

Thu 7/11/2019 10:47 AM

Dear Ramona Broomer,

You have my permission to use TPACK-deep scale in your dissertation research. This permission given to you through this form is valid just for you. Best wishes in your work.

Associate Professor

Işıl Kabakçı Yurdakul, PhD

Anadolu University, TURKEY

Appendix B

April 29, 2021

To:
Ramona Broomer

From:
Mike Hausberg
The Old Globe
PO Box 122171
San Diego, CA 92112-2171
(619) 238-0043 x2355

Dear Mx. Broomer:

This letter serves as copyright permission to use a photo of the catwalk at The Old Globe, referenced here (or another permutation of it): https://www.theoldglobe.org/globalassets/images/old-globe-campus/whitecatwalk_print.jpg

No fee associated with the use. The permission extends to Mx. Broomer for the dissertation, and may not be used by others or for other reasons without contacting The Old Globe for permission. Please credit "Photo courtesy of The Old Globe, San Diego, California."

Thank you,

Mike Hausberg

Appendix C

March 30, 2021

RE: Copyright Permission

Copyright permission is granted to Ramona Broomer by Lock Haven University to use four (4) images of classrooms to be used by researchers and librarians globally, free of charge for academic purposes only.

Sincerely,

Elizabeth Arnold
Executive Director of Strategic Communications

Appendix D

Below the introductory theatre 5-week course calendar used for the summer 2019 section.

THEA 110 Theatre: An Orientation Mon. - Thurs. 1:30-3:30 pm Summer 2 - 2019
Prof. Ramona Broomer Office Hours: Mon.-Thurs. 12 – 1:30 pm and Tues. 4– 5:00 pm

Monday	**Tuesday**	**Wednesday**	**Thursday**	**Discussions**
Week 1 June 24 Course Introduction Course Requirements	June 25 Student Profile Theatre is	June 26 Read Chap. Audience	June 27 Using D2L/Video Synonyms	Discussions 1 and 2 Due Mon. 7/1
Week 2 July 1 Play 1	July 2 Exam 1 Based on Chap. Audience	July 3 Read Chap. Acting	July 4 (No Classes)	Discussions 3 and 4 Due Mon. 7/8
Week 3 July 8 Read Chap. Stage Space Exploring Space	July 9 Exam 2 Based on Chap. Actor	July 10 Project 1	July 11 Read Chap. Director Class Trip	Discussions 5 and 6 Due Mon. 7/15
Week 4 July 15 Read Chap. Costumes Play 2	July 16 Exam 3 Based on Chap. Stage Space and Chap Director	July 17 Project 2	July 18 Read Chap. Scenery.	Discussions 7 and 8 Due Mon. 7/22
Week 5 July 22 Read Chap. Lights/Sound	July 23 Theatre Criticism Paper Play 3	July 24 Read Chap. Musicals Project 3	July 25 Final Exam Based on Costumes and Scenery	Discussions 9 and 10 Due Thurs. 7/25

Appendix E

Below the introductory theatre 15-week course calendar used for both fall 2019 sections.

THEA 110 Theatre: An Orientation Mon. 3:35 pm - 4:50 pm Fall 2019
Prof. Ramona Broomer Office Hours: Tues./Thurs. 10:00 -11:00am Wed. 10-1:00 pm

Monday	**Course Assignments**	**Discussions**
Week 1 Aug 26	Course Introduction/Play 1	
Week 2 Sept 2	Student Profile/Theatre Is	
Week 3 Sept 9	Read Chap. The Audience	Post Discussion 1
Week 4 Sept 16	Read Chap. Stage Space Project 1	Post Discussion 2
Week 5 Sept 23	Read Chap. Acting Exam 1	Post Discussion 3
Week 6 Sept 30	Read Chap Musicals Play 2	Post Discussion 4
Week 7 Oct 07	Read Chap. Background Criticism Paper Due/Midterm	Post Discussion 5
Week 8 Oct 14	Fall Holiday	No Classes
Week 9 Oct 21	Read Chap. Scenery	Post Discussion 6
Week 10 Oct 28	Read Chap. The Director Project 2	Post Discussion 7
Week 11 Nov 04	Read Chap. Costumes Play 3	Post Discussion 8
Week 12 Nov 11	Group Project Exam 2	Post Discussion 9
Week 13 Nov 18	Read Chap. Lighting	Post Discussion 10
Week 14 Nov 25	Project 3	
Week 15 Dec 02	Read Chap. Sound	
Final Exam Fri., Dec. 13, 2:00-3:50 pm	Textbook: Theatre Experience Author: Wilson, Edwin ISBN: 0073514276 Publisher: McGraw-Hill Publishing Company	You will be required to attend an LHU main stage play and write a theatre criticism paper based on this performance.

Appendix F

Below is the syllabus for THEA110 the introductory theatre course.

Lock Haven University of Pennsylvania
Lock Haven, Pennsylvania
Visual and Performing Arts
Theatre: An Orientation

I. Introductory Information:

A. Department Name: Visual and Performing Arts
B. Department Catalog Number: THEA110
C. Course Title: Theatre: An Orientation
D. Semester Hours of Credit: 3
E. Clock Hours per Week: 3
F. General Education Competencies
Intellectual Foundation:
Knowledge and Inquiry:
Personal and Social Responsibility:
G. Restrictions Upon Student Registration: None

II. Description of the Course

Catalog Description:
This course includes definitions and analysis of theatrical art and plays. Students will explore the relationship between theatre, the culture from which it came, and the theatre practitioners' roles.

III. Exposition

A. Objectives:

Upon successful completion of this course, the student will be able to do the following:
1. Identify the basic elements of any art form and the creative process**. (PLA 1)**
2. Define and identify the components of a play. **(PLA 1, 2)**
3. Analyze theatrical scripts in terms of their dramatic structure, genre, style, and historical period. **(PLA 1, 3)**
4. Conceptualize and support an aesthetic vision for a play. **(PLA 3)**
5. Examine, understand, and evaluate personal theatre experiences. **(PLA 3)**
6. Demonstrate an understanding of the relationship between theatre and cultural roots. **(PLA 1)**
7. Apply an understanding of the roles and duties of theatre practitioners. **(PLA 4)** 2

B. Activities and Requirements:

1. Students will read and participates in the discussion of selected plays.
2. Students will analyze selected plays in terms of style, genre, dramatic structure, visual elements, and the culture from which it came.
3. Students will perform selected scenes from plays read.
4. Students will participate in preparing and presenting group projects/presentations.
5. Students will view at least one evening of theatrical production(s) and write a critical analysis of the production(s).

C. Major Units and Time Allotted (*may vary by instructor*): **45 Hours.**

1. The creative process 6
2. The elements of theatrical art, a theatrical event, and a dramatic event 6
3. The theatre practitioners and collaborators 6
4. The components of a play 6
5. Dramatic genres, styles, play readings, and analysis 15.
6. Final presentations 6

D. Materials and Bibliography:

1. Required Text:
2. Other Materials: TBD by the individual instructor
3. Basic Bibliography:

Arnott, Peter. *The Theatre in Its Time: An Introduction*. Boston: Little, Brown, and Company, 1981.
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Clurman, Harold. *On Directing.* New York: Simon and Schuster, 1997.
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-----. *Classical Tragedy, Greek and Roman.* New York: Applause Theatre Book Publishers, 1991.
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Cunningham, P. *The Magic Garment.* Prospect Heights, IL: Waveland 1994.
Esslin, Martin. *The Theatre of the Absurd*. New York: Penguin, 1987.
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Gillette, J. Michael. *Theatrical Design and Production.* New York: McGraw Hill, 1999.
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Parker, W. Oren. *Scene Design and Stage Lighting.* New York: International Thomson Publishing, 1990.
Pickering, Jerry V. *Theatre: A History of the Art.* St. Paul, MN: West Publishing Co, 1978.
Stanislavski, Constantin. *An Actor Prepares.* Elizabeth Reynolds Hapgood. New York: Theatre Art Books, 1989.
Watson, J., and Grant M. *A Cultural History of Theatre.* New York: Longman, 1993.

IV. Standards

Grades will be awarded in a manner consistent with University policy but will vary somewhat by the instructor, as several instructors will teach this class. Grades may be based upon consideration of attendance and mastery of the course material and skills, as exhibited in written assignments, projects, quizzes, and exams.

V. Rationale and Impact

A. This course fulfills a PLA general education competency requirement.

B. This course is designed to provide all Lock Haven University students with a technical, aesthetic, cultural, and historical awareness of theatre.

C. There will be no impact on existing departments or programs.

Appendix G

Lesson Plan for Grade 8 based on 6 Elements of Greek Tragedy

FINAL LESSON PLAN **GDFE 510** **Name**: Ramona Broomer

LESSON ONE

Lesson One Analysis:

Aspects of lessons that are supported (provide justification and support for your claims):	The aspects of Lesson One supported by motivation theory are: 1) The use of a contemporary music video to help illustrate the 6 Elements of Tragedy. Music videos are a very popular choice of entertainment for many students today. Learners who are interested in what they are studying are more likely to remember it over the long run and so show higher academic achievement (Ormrod, 2012, p.463). In addition Michael Jackson is a pop icon that will generate a great deal of personal interest from the students – personal interest provide the impetus that ultimately sustains involvement over the long run (Ormrod, 2012, p.464). 2) It is important for the music video to be used as an educational tool and not a gimmick included for entertainment purposes only. Students learn more when they find classroom material interesting as well as informative (Ormrod, 2012, p.491). 3) The 6 Elements of Tragedy will be a new topic for most students. However the students may be able to relate to the video while identifying how the 6 elements are used in Michael Jackson's *Thriller* video. People seem to be more intrinsically motivated to accomplish new tasks when their need for relatedness has been addressed (Ormrod, 2012, p.442).
Aspects of lessons that can be improved (provide justification and support for your claims):	The aspects of Lesson One that can be improved are: 1) By adding a written reflection based on the students observations and experiences while working on Lesson One this will be an activity all students can make valuable contributions to that will affect motivation by grouping procedures in the classroom (Ormrod, 2012, p.499). 2) Giving the students some autonomy to look up definitions instead of the instructor providing the definitions as a way of maximizing the extent to which the learner maintains a sense of self-determination (Ormrod, 2012,

	p.491).

Lesson One Changes and Refinements:

Specific changes to improve lessons (provide support for your claims)	For Lesson One I feel the need to make (2) changes: 1) I will provide a challenge for the students to look up definitions for each element. Challenges promote competence and challenging task are important not only for motivation but also for learning and cognitive development (Ormrod, 2012, p.498). 2) I will have my students write a reflection based on their experience identifying the 6 Elements of Tragedy in a music video. Students will be more motivated to learn if they have a sense of perceived control or self-determination (Peterson motivation guide, 2012).

Lesson One Reflection:

I used to think … but now I know…: (provide support for your claim)	I used to think that students learned from carefully selected content that instructors compiled in age appropriate lesson plans with clear objectives. Now I realize even if students are perfectly capable of learning something motivation often determines whether and to what extent we actually learn it and is largely responsible for what we continue to do (Ormrod, 2012, p.426).
Insight into effective teaching:	Effective teaching can enhance students' motivation to achieve the objective or goal of the lesson but can also influence students' mastery goals to acquire additional knowledge or mastering new skills (Ormrod, 2012, p.467).

Lesson One Connections to Themes and Domains of the LTP:

Connection 1	I have developed my knowledge in the domain of **Learning Theorist**. For example motivation theory is an important cognitive process I have learned and in my project I can incorporate it in my instruction to help meet the specific learning needs of my students.
Connection 2	I have developed my skills in the domain of **Curriculum Designer**. For example in my project I will make changes to refine my instruction based on motivation theory which will help guide my instruction in an informed way benefiting from scholarly research I am borrowing in my classroom instruction to help educate my students.

Connection 3	I have developed my skills in the domain of **Master Practitioner**. For example in my project I will create a deliberate meaningful link between the subject, unit topic, objectives, and standards of the lesson by exercising a competent strategy demonstrated by more informed actions as an educator which have a direct effect on the actions my students will perform.

Lesson One Revision:

About your students: **Age** 16-17 years old **Grade Level** 11th

About your lesson: **The general subject:** English

The specific unit or topic where the three lessons reside: Dramatic Literature

How long is the class period in which you will teach each lesson? 90 minutes

Instructional Objectives: By the end of Lesson 1 the students will be able to identify and define *Aristotle's 6 Elements of Tragedy*.

PDE standard(s): 1.1.11.B Analyze the structure of informational materials explaining how authors used these to achieve their purposes.
Pennsylvania Department of Education Standards(PDE). (2011). Retrieved Feb. 01, 2012 from http://www.pacode.com/secure/data/022/chapter4/s4.83.html

National standard(s): 6. Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and non-print texts.
Standards for the English Language Arts. (1996). Retrieved Feb. 01, 2012 from http://www1.ncte.org/library/files/Store/Books/Sample/StandardsDoc.pdf

Teacher's Actions	Student Actions	Time Frame
I will orally introduce the objective for Lesson 1, ask the students to explain the difference between the genres of comedy and tragedy and provide positive feedback to their responses.	My students will listen to the introduction after hearing the Lesson 1 objective and respond to the question by explaining the difference between the genres of comedy and tragedy.	5 minutes
I will provide a rubric that illustrates how their work will be accessed and give them an opportunity to ask question about this.	The students will review the rubric and ask questions for further clarification and comprehension.	

I will present the 6 Elements in an excerpt for students to read entitled *Aristotle's Ideas About Tragedy*.	My students will Identify the 6 Elements by reading the excerpt entitled *Aristotle's Ideas About Tragedy*.	20 minutes
I will provide a glossary with terms related to the unit of instruction and ask the students to define each of the 6 Elements of Tragedy on a worksheet in writing and review each element orally when the worksheet is complete.	My students will examine the 6 Elements of Tragedy by identifying the elements in the glossary handout and writing each definition on the worksheet. They will share each element orally upon completion to review their findings.	10 minutes
I will illustrate a visual example of the 6 Elements of Tragedy by showing the Michael Jackson music video *Thriller*.	My students will watch a visual example of the 6 Elements of Tragedy in the music video Thriller featuring Michael Jackson.	15 minutes
I will ask the students to write one example of each of the 6 Elements of Tragedy they can identify as I replay the video.	My students will write on the worksheet an example for each of the 6 Elements of Tragedy identified while watching the video again.	20 minutes
I will discuss the student's observations by reviewing some of their findings on the worksheet.	My students will read some examples of the 6 Elements of Tragedy the observed and noted on the worksheets.	10 minutes
I will ask the students to write a reflection based on their experience of identifying the 6 Elements of Tragedy in a Michael Jackson music video and collect the worksheets only these will be graded.	My students will write a reflection at the conclusion of the lesson and turn in the worksheets which will be graded and returned to them during Lesson 2.	5 minutes

LESSON TWO

Lesson Two Analysis:

Aspects of lessons that are supported (provide justification and support for your claims):	The aspects of Lesson Two supported by motivation theory are: These self-regulated learners will engage in hands on activities that will require them to read a play and then see a video version of the production. Identifying the 6 Elements of Drama in this work will be a new task for the students. They will be encouraged to ask for help at any time during the instruction. Self-regulated learners tend to set mastery goals for their performance and to attribute successful outcomes to things they themselves have done (Ormrod, 2012, p.488).
Aspects of lessons that can be improved (provide justification and support for your claims):	The aspects of Lesson Two that can be improved are: 1) As the instructor I can help my students feel comfortable with my instruction and the process of learning by providing an opportunity for students to ask questions about the previous lesson and get clarification on any areas of the lesson that were

	unclear (Ormrod, 2012, p.488). 2) Provide more opportunities to give students written feedback and oral support to acknowledge and assist their efforts throughout the unit of instruction. Teachers play a crucial role in creating the environmental conditions that can support and enhance the motivation of all learners (Peterson motivation guide, 2012).

Lesson Two Changes and Refinements:

Specific changes to improve lessons (provide support for your claims)	For Lesson Two I feel the need to make (2) changes: 1) Conduct a question and answer session at the start of Lesson Two I will press for understanding by asking the students to explain and justify their reasoning (Ormrod, 2012, p.471) in response to questions based on what they learned from Lesson 1. The students will also be encouraged to seek clarification on any issues related to the lessons also. 2) Using scaffolding to direct the students learning by explaining what they are about to see before they view the video version of the play *Trifles*. I will also explain why they will be watching the play before attempting to identify the 6 Elements of Tragedy. Students tend to be more optimistic about their chances for success when they have environmental support for their efforts (Ormrod, 2012, p.492).

Aspects of lessons that are supported (provide justification and support for your claims):	All three lessons provide a number of ways the students can be assessed while exploring unit topics. To help build competence and self-worth I have decided to base students classroom grades on many sources of data instead of only one or two test scores (Ormrod, 2012, p.460). This will help the students feel more confident in their ability to get favorable grades on these lesson. One's sense of confidence is an important variable influencing motivation (Ormrod, 2012, p.437).
Aspects of lessons that can be improved (provide justification and support for your claims):	An aspect of Lesson Two that can be improved is to make the homework assignment one that will not be graded. The students can concentrate on observing the use of the 6 Elements of Tragedy in a music video they watch at home. They will write down their response to submit in class without fear of failure or anxiety about receiving a low grade. Classroom assessment are more effective motivators when students perceive them as means of enhancing future achievements rather than as judgments of ability and worth (Ormrod, 2012, p.460).

	This practice will be a great follow up exercise after viewing the *Thriller* video and a good precursor to help motivate the students to learn how to describe the 6 Elements in the writing exercise for Lesson Three. Provide reasonable support (scaffolding) to help students perform successfully (Ormrod, 2012, p.460).

Lesson Two Reflection:

I used to think … but now I know…: (provide support for your claim)	I used to think that every assignment had to be graded but now I know that by thinking meaningfully and creatively about tasks and problems with this ungraded homework assignment it can help build and satisfy the students need for self-determination (Ormrod, 2012, p.437). Students will be more motivated if they have a sense that they can succeed on learning tasks, and nearly all theories of motivation address this issue in one way or another (Peterson motivation guide, 2012).
Insight into effective teaching:	Assessment does not always have to be in the form of grade based assignments. In order to insure that students are fulfilling their need for self-determination an ungraded homework assignment can allow the learners to experience pleasure in activities and voluntarily engage in them for long periods (Ormrod, 2012, p.437) like viewing a music video in a directed manner with specific learning goals.

Lesson Two Connections to Themes and Domains of the LTP:

Connection 1	I have developed my knowledge in the theme of **Technology**. For example in my project I selected technology that will specifically help reinforce the instruction. By watching the video and reading the script from the same play the students will be able motivate students to learn and identify the 6 Elements of Tragedy
Connection 2	I have developed my knowledge in the domain of **Learning Theorist**. For example in my project rote memorization of motivation theory will not suffice. My understanding of the theory and how to apply it practically depending on the unit of instruction and the learners specific needs as a group and individually will take a concentrated effort. This domain requires creativity and flexibility to identify a variety of content and tools that will motivate and educate 21st century learners. I find this to be both challenging and exciting.
Connection 3	I have developed my knowledge in the theme of **Leadership**. For example in my project I will create a comfortable learning environment for students to feel secure when asking questions and acknowledge their need to learn and feel supported under my instruction in an earnest attempt to inspire my then to grow academically beyond their classroom experience with me.

Lesson Two Revision:

Instructional Objectives: By the end of Lesson 2 the students will be able to identify and comprehend how Aristotle's 6 Elements of Tragedy are used in a one act play.

PDE standard(s): 1.1.11.G Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.
- Make, and support with evidence, assertions about texts.
- Compare and contrast texts using themes, settings, characters and ideas.
- Make extensions to related ideas, topics or information.

National standard(s): 6. Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and non-print texts.

Teacher's Actions *This is what I will do and how I will do it:*	**Student Actions** *This is what my students will do and how they will do it:*	**Time Frame**
Orally present an introduction to the Lesson 2 and conduct a question and answer session with the students so they can articulate what they learned from Lesson 1 before we proceed.	After hearing the introduction to Lesson 2 students will	7 minutes
Distribute copies of the one act play *Trifles* to read aloud in class. Ask the students questions related to what they think about the theme and specific characters in the play.	Read the one act play *Trifles* aloud in class. The students will answer questions orally about the theme and specific characters in the play.	20 minutes
Give back each student worksheet with my feedback to review the 6 Elements of Tragedy.	Review and discuss feedback as needed for each definition on the 6 Elements of Tragedy on the worksheets,	8 minutes
Play a video version of the one act play *Trifles* to help students identify the 6 Elements of Tragedy. Provide observations/questions for students to make note of while viewing the video.	Watch a video version of the one act play Trifles and identify the 6 Elements of Tragedy. Students will take notes while watching the video.	20 minutes
Ask the students to write one example of each of the 6 Elements of Tragedy they	Write on the worksheet an example for each of the 6 Elements of Tragedy identified while	20 minutes

identify as they watch to the play. I will introduce the video by explaining exactly what the students are expected to learn from watching the video.	watching to the play. The students will hear an introduction to the video identifying the purpose for watching it and what they are expected to learn.	
Analyze the script by asking the students 5 questions about the play. I will respond with oral feedback as the students share observation from both the written and video version of the play.	Compare and contrast the use of the 6 Elements of Tragedy in the written and video versions of the play. The students will receive oral feedback as they compare and contrast observations from both versions of the play.	10 minutes
Orally present a conclusion to the lesson and collect the worksheets. I will provide written feedback on each student's worksheet during Lesson 3. Assign homework for the students to identify and write the use of (1) of the 6 Elements of Tragedy in a music video they find including the artist name and title of the song. This assignment will not be graded.	Listen to the conclusion of the lesson and turn in the worksheets. The students will receive individualized feedback on their worksheets during Lesson 3. Students will identify and write the use of (1) of the 6 Elements of Tragedy in a music video they find including the artist name and title of the song. The students will not receive a grade for this homework assignment.	5 minutes

Student products and performances:

- Student Products – after the lesson is over the worksheets based on the audio version of the play will be collected.
- Student Performances –1) Observe student responses after reading and listening to the play and recording their findings based on the 6 Elements of Tragedy. 2) Observe the students answering questions while they compare and contrast the written and audio versions of the one act play.

LESSON THREE

Lesson Three Analysis:

Aspects of lessons that are supported (provide justification and support for your claims):	The aspects of Lesson Three supported by motivation theory are: 1) The students will receive support while learning some new skills using technology to help fulfill their need for self-determination. New skills are taught by engaging students collaboratively in tasks that would be too difficult for them to complete on their own. The instructor initially provides extensive instructional support, or

	scaffolding, to continually assist the students in building their understanding of new content and process (Vygotsky's learning guide). 2) The students will be working on several goals at once during each of the three lessons. Classroom activities are more effective when they enable students to meet several goals at once (Ormrod, 2012, p.494).
Aspects of lessons that can be improved (provide justification and support for your claims):	The aspects of my Lesson Three that can be improved are: 1) To allow the students to elect a leader for each group this will help teach social skills students need to interact effectively while promoting learning and enhancing their motivation (Ormrod, 2012, p.498, 499). 2) Based on the students work in Wikispaces developing pages of information for each of the 6 Elements of Tragedy, there will be specific feedback the instructor and the student's classmates. This will occur in a noncompetitive way to create an atmosphere of mutual, caring, respect and support (Ormrod, 2012, p.499)

Lesson Three Changes and Refinements:

Specific changes to improve lessons (provide support for your claims)	For Lesson Three I feel the need to make (3) changes: 1) For the peer assessment survey I would add a few personal questions to learn more about each student. The students will have access to the survey results to get instructor/peer feedback on their work in Wikispaces. It will be a great way to learn more about each other by including personal questions that are not invasive. This addition could help fulfill the student's need for relatedness. People need to feel good about themselves (self-esteem) and to believe that others also feel positively (esteem for others) about them (Ormrod, 2012, p.432). 2) The students will work in groups but an improvement would be to allow them to identify a group leader among themselves. This will show students how their own efforts and strategies are directly responsible for their successes. Grouping procedures in the classroom affect motivation (Ormrod, 2012, p.499) and fulfill students need to for competence through self-efficacy and self-regulation. 3) To make sure I have allotted enough time for each aspect in Lesson 3 I adjusted some of the original time slots in the unit of instruction to give students enough time to gain mastery of

	important topics and skills. How teachers schedule time effects motivation (Ormrod, 2012, p.499)

Lesson Three Reflection:

I used to think … but now I know…: (provide support for your claim)	I used to think that motivation was a process solely exercised by the student but now I know instructors can develop curriculum that can stimulate the process of motivation in positive and measurable ways. The challenge for both students and any instructor interested in motivation are attributions in three key dimensions, locus, stability, and controllability that can positively or negatively affect motivation. Forming attributions is just one of the many ways in which human beings try to make better sense or their world (Ormrod, 2012, p.476)
Insight into effective teaching:	Effective teaching is truly an organic process that incorporates the study of theories related to pedagogy,(andragogy depending on the learner's age), psychology, sociology and more for educators to fully understand how to incorporate theory into effective practical applications needed to teach each unique group of learners.

Lesson Three Connections to Themes and Domains of the LTP:

Connection 1	I have developed my knowledge in the theme of **Technology**. For example in my project I will integrate several different types of technology (i.e. Wikispaces, a blog, eSurvey) to incorporate the tools of the culture my students live in. Meaningful learning is not a matter of simply learning the content curriculum. Rather, students learn to be effective members of their culture by learning to use the tools of their culture (Vygotsky's learning guide).To take full advantage of the power of technology I have to first be proficient in these tools myself and be prepared to instruct students in how to use technology regardless of their level of proficiency.
Connection 2	I have developed my skills in the domain of **Curriculum Designer** which states leading teacher bases curricular decisions on research, theory, informed practice, and recommendations of learned societies. For example in my project the students will work on several assignments at the same time. According to the research Students are more productive when they can accomplish multiple goals simultaneously (Ormrod, 2012, p.494).They will be multitasking which is so prevalent in how students work outside of the classroom in their everyday endeavors. This approach to the assignments will fulfill their need for relatedness and promote motivation.
Connection 3	I have developed my knowledge in the domain of **Learning Theorist**. For example in my project I included several elements that are in line with a TARGETS mnemonic for motivational strategies *before* reading the chapter and learning about

	the six words, task, autonomy, recognition, grouping, evaluation, and time (Ormrod, 2012, p.498). These words are target principles for motivation. I feel like an emerging Learning Theorist with a lot of practical teaching experience. My goal is to continue to study the theories of learning like motivation so I can teach with research based knowledge and not solely by instinct. This approach will make me more aware of learning outcomes and the learners' specific needs.

Lesson Three Revision:

Instructional Objectives: By the end of Lesson 3 the students will be able to develop and present Aristotle's 6 Elements of Tragedy collaboratively on pages in *Wikispaces*.

PDE standard(s): 1.1.11.G Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.
- Make, and support with evidence, assertions about texts.
- Compare and contrast texts using themes, settings, characters and ideas.
- Make extensions to related ideas, topics or information.

National standard(s): 6. Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and non-print texts.

Teacher's Actions *This is what I will do and how I will do it:*	**Student Actions** *This is what my students will do and how they will do it:*	**Time Frame**
Orally present an introduction to the Lesson 3 and conduct a question and answer session with the students so they can articulate what they learned from Lesson 2.	After hearing the introduction to Lesson 3 students will participate in a question and answer session to explain what they learned and/or ask for clarification on information from Lesson 2 before proceeding.	8 minutes
Divide students into six groups, identify a group leader and assign each group one of the 6 Elements of Tragedy.	Sit with members of their assigned group, students will select a group leader and receive one of the 6 Elements of Drama.	10 minutes
Show students how to login and use Wikispaces. List names and login by group on sign in sheet.	Students will login and use Wikispaces. Write names and login by group on sign in sheet.	10 minutes
Require each group to develop text and find a related image to post on a page in Wikispaces.	Work in groups to write the text related to the assigned Element of Tragedy and locate a related image to post on a page in Wikispaces.	50 minutes
I will preload a peer assessment survey in Wikispaces to provide and receive feedback	Students will review the peer assessment survey, to provide and receive feedback for	4 minutes