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Secondary Teacher Professional Development Engagement Through Podcast Listening, Reflection, and Collegial Conversation

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Walden University

College of Education and Human Sciences

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Erin Fox

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Walden University

2024

Abstract

Secondary Teacher Professional Development Engagement Through Podcast Listening,

Reflection, and Collegial Conversation

by

Erin Fox

MA, Converse College, 2014

BS, Western Carolina University, 2003

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education

Walden University

December 2024

Abstract

The problem for this qualitative study was how educators experience professional development using podcast listening combined with independent jot journals and collegial discussions. The research questions aimed to discover whether teachers would accept or reject this professional development as well as potential lesson plan designs or recommendations for this format based on themes and the likelihood of acceptance or rejection for this method of professional learning. The conceptual framework was the unified theory of acceptance and use of technology. A case study design was used to triangulate data collected from interviews, jot journal reflections, and observations from collegial conversations to determine eight emerging themes. Participant experiences from podcast listening and jot journaling included learning autonomy, personal connectivity, and modes for capturing ideas. Learning experiences from the collegial conversation included purposeful interaction and support among teachers and accommodation and pliancy of the experience. Emerging lesson plans and recommendations included peer collaboration, self-assessment for student reflection, and student growth. These results suggest that this professional learning experience has the potential to be meaningful, open-ended, and allow for choice and voice in content and engagement. These recommendations can lead to greater teacher acceptance of technology, which may ensure more effective instructional practices with more positive student learning outcomes.

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Dedication

This dissertation is dedicated to my husband, children, and family. Danny Fox has made every dream I've had possible because he has dedicated himself to supporting me in every way. From cheering me on while I worked toward being named the 2018 South Carolina Teacher of the Year, sustaining me during my year of service, and encouraging me as I worked through the doctoral process, Danny has believed in me when I found it impossible to believe in myself. He has given me strength when mine was depleted, and he put himself last to ensure that our kids and I could achieve all we dared to hope for in this life. Danny Fox, you are love in a form that most people never experience. I am truly blessed to be in love with my best friend.

Jack and Scout have watched me work for hours at the kitchen table on coursework and through the writing process. They pulled me away for four-square games in the driveway, long walks around the neighborhood with our rowdy dog Coco, and “glasphalt” chalk art along the sidewalk, and each of those moments renewed me and recharged me to finish my tasks. I never want them to see me fail. I hope, my sweet babies, that I never let you down and that I've been a good role model for you to see that you can succeed at anything you want to do. I am sorry I have had to be a boring mom for so long, either glued to a kitchen table working or writing from my office, but I promise I will be the active, fun mom I used to be when this process is complete. I love you both so much, and each of your lives created within me a better understanding of the sacrifice of Christ by His Heavenly Father for the salvation of the world—because it's nothing I would ever be able to do. You are my heartbeats.

My mother and father, Rose and Dan Anderson laid the groundwork for my belief in education and the power of hard work, growth, and knowledge. You are two of the best teachers I have ever known, and I have done my best to follow in your footsteps in my own work. You both made me the teacher that I am today; thank you for all your love and support and for pushing me to always strive for the best. I am sorry that I wasn't able to be as active in your lives as I would've liked to have been during this process, especially when daddy needed everyone's extra patience, care, and love so much. I feel like I let you both down terribly in that way, but I hope that seeing the final product will make you proud.

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Next, thank you to the C&I team and all my supporters from my district and community. You have witnessed my highs and lows firsthand but never faltered from your belief that I could see it through to the end. Thank you, especially to my pilot participants who helped me through my trial runs with this work and offered valuable support and insight. You are all beautiful friends inside and out, and I am blessed to join you all in the work of education. Thank you also to all of my participants for your willingness to be a part of this study and helpfulness in making my doctoral goal a reality.

To Jennifer and Roxanne, thank you for letting me bombard our running days with both my inspirations and frustrations and for letting me voice my ideas and woes while we pounded out the miles. All that sweat therapy paid off, and you both helped make me better for it in so many ways. Thank you for being my “running buddies” and true friends in my life.

Most importantly, I thank my Lord and Savior, Jesus Christ, for everything. All that I ever could be or do have been ordained by His will, and He made all these

blessings possible. I am glad for the reminder in Hollis and Hollis's (2014) book *Run for God Devotions: Finding God in a Runners Space*; throughout the rest of my life and through all my work, may I always remember and serve as a witness that "[most] often, the greatest rewards in life come out of the most painful experiences we have. Who am I to wince at that, knowing what Jesus endured for us? Instead, I choose to step towards the resistance, hoping to learn something new with each new experience" (Hollis & Hollis, 2014, p. 25).

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Chapter 1: Introduction to the Study

Chapter 1 explains the need for professional development in the educational field and some of the problems that result from that need. Chapter 1 further explains the purpose of the study as well as the problem it addresses. The nature of the study and theoretical framework are discussed in addition to the three research questions that provided a framework for what the study sought to describe regarding the professional development experiences of educators. Following this, any assumptions associated with the study are discussed, and the scope and delimitations, as well as any limitations, are provided. Finally, the chapter ends with the significance of this study for the field of education and a summary.

Background

Throughout their careers, educators have a need for continual professional development (PD). As such, professional development experiences are presented in a variety of forms, but some presentation methods are more meaningful to teachers than others. For this reason, presenting professional development through podcast listening coupled with independent and collaborative activities was explored to determine if it could generate greater growth in the profession for teachers. As there was little known at that time about the combined use of podcast listening, reflection, and discussion in the secondary setting, this study grew knowledge for professional development options in an area where information was lacking. Furthermore, there was a gap in understanding of this form of professional development for teachers and in evidence generated via a qualitative approach.

The Necessity of Professional Development

To grow beyond the scope of experiential learning they have in their classroom, teachers need intentionally designed professional development (also referred to as in-service training) in new teaching practices. Teachers must continually learn and practice new techniques and experience the roles of learners themselves for the constant improvement of their teaching craft and growth within an ever-changing educational climate (Sancar et al., 2021). Professional development for teachers offers myriad educational growth opportunities created with the intention of elevating the teaching craft and making positive progress (academically and/or social-emotionally) with students (Bartley & McKay, 2022). For teachers to increase their instructional expertise and delivery, as well as to grow content proficiency, they must consistently participate in “professional learning activities” dedicated to improving their teaching practices (Akiba & Liang, 2016, p. 99).

Further, positive student outcomes can have greater efficacy when professional development experiences for teachers focus on collegial cooperation and center around teacher needs (Anderson, 2021; Akiba & Liang, 2016). However, teachers are often disengaged with PD and do not elect to implement learned strategies within their instruction because of its lecture format (Abadiano & Turner, 2004; Klingner, 2004). In a survey of 1,600 educators, less than 30% of teachers were pleased with the professional development sessions provided by their schools and district, and less than 35% of those surveyed believed that their administrations have worked to progressively enhance the offerings year after year (Bill and Melinda Gates Foundation, 2014). Teacher choice and

individual needs have often not been considered because of a disconnection between school and district objectives and goals (Schwartz, 2019). Because education is in a constant change, educational leaders must be mindful of the ways educator training can be elevated and improved to support successful student outcomes (Czerniawski et al., 2018). Professional learning must not only concentrate on information but must also include active teacher application through a combination of learning, collegial interaction, best practice exemplars, independent reflexivity, and continued iteration to be effective (Darling-Hammond et al., 2017).

Professional Development Through Podcasts

The recent popularity of podcast listening merited examining the platform for its use as a professional development option or as a mode of in-service training. However, podcast listening alone could not provide the deep and rigorous interaction needed for learning. If used singularly, a podcast would be limited in its capacity to aid in the comprehension and application of information that some may need through more visual or physical means. A podcast alone also could not support collaborative learning activities that might be necessary for professional learning. Thus, it was reasonable to combine it with opportunities for reflection and discussion.

Information and communications technology has made marked improvements over the years, and recently even greater expansions have been made on the diverse ways that information can be delivered to learners of all ages. Many educators saw the benefits of collaboration through virtual technology with the restrictions placed on face-to-face interactions, and asynchronous online learning became one avenue used to continue to

provide quality instruction to students of all ages despite an array of barriers during the COVID-19 pandemic. However, though asynchronous learning through technological means has become an option, this did not necessarily mean that it always optimized learning experiences. In a study on business students' perceptions, students showed a preference for courses that provided equal synchronous and asynchronous activities throughout the course only if the course was one that was based on a concept or idea, such as a qualitative course that was more subjective in the content that was discussed (Wu & You, 2022). Further, students showed an awareness and appreciation for synchronous interactions with their teachers and noted that these interactions were valuable in their learning experiences (Wu & You, 2022). Based on these results as well as the necessity for collaboration with colleagues as a part of educator professional development, a new approach to professional development was proposed. It fused individualized technology application and reflection with collegial collaborative conversation. The outcomes from this approach can ensure that meaningful professional development experiences were provided for teachers, which could ensure more effective instructional practices with more positive student learning outcomes.

Augmented Podcast Learning

This study filled the research gap by qualitatively describing the professional development experiences of secondary teachers as they listened to an educational podcast, reflected upon their learning through a written journal, and engaged in collegial conversations via a synchronous virtual meeting. Little was known about whether podcast listening coupled with independent reflections and later discussions with fellow teachers

would supply a more meaningful form of professional development that secondary teachers would readily engage in. Little was also known concerning whether teachers would choose to implement the learned professional development information in future unit and lesson planning. The purpose of this qualitative study was to better understand the experiences of secondary educators from the southeastern United States and their engagement in podcast listening professional development. This exploration described the experiences of these secondary educators and provided insight into teacher engagement and plans for future use in the classroom.

Problem

The issue addressed in this study was that secondary educators had disinclination and detachment from professional development opportunities and did not employ learned practices in their craft due to these factors. However, it was unknown whether podcast listening, reflection, and collegial conversation would lead to the development of lesson plans or if teacher recommendations would emerge as outcomes. This study was conducted to discover how teachers experience podcasting listening coupled with both independent reflection and collegial conversation as a form of professional development for teachers and whether teachers would accept or reject this form of professional learning when compared with typical lecture-style professional development. For any professional development to bring about these desired outcomes, it must first be meaningful to teachers and meet their distinct professional and personal needs.

Purpose

One aspect of the exploration of teacher engagement and future planning included

gathering evidence to show ideas for future unit and lesson plans that resulted from secondary educators' collegial conversation and interactions following their podcast listening and reflection. Through this exploration, I hoped to uncover experiential themes shared by participants and discover reasons for teacher acceptance or rejection of this professional development method. I also hoped to discover comments that suggested ideas for unit or lesson plans that resulted from conversations with colleagues. The result will better inform school leaders of its likelihood of efficacy in bringing about improved instruction and better student outcomes using this design. A qualitative study using a case study approach was the best research strategy because it provided a detailed, vivid description of the participants' experiences with podcast listening (through one-on-one interviews and journal analysis) and observations made during collegial conversation (Yin, 2016).

Research Questions

1. What were the professional learning experiences of secondary educators who participate in educational podcast listening and reflection for PD?
2. What were the professional learning experiences of secondary educators who participate in a collegial conversation following podcast listening and reflection for PD?
3. What lesson plan designs or recommendations emerged from secondary educators' collegial conversation following podcast listening and reflection?

Theoretical Framework

Cognitive Learning Theory

While several theories explain how adults actively learn and play a role in how educators might participate in professional learning, cognitive learning theory provided insight concerning the numerous avenues through which learning can occur, and these included learning pathways for adults. Based on cognitive learning theory, learners are active participants and must learn by doing throughout the reception of the information (Kretchmar, 2021). Furthermore, cognitive learning theory explains that opportunities for engagement with other students while applying the content in a meaningful way strengthen the learning. Cognitive learning theory offered a framework for the research design because the teachers' active participation in the learning (first by listening and then by jotting a reflection journal) aided in their processing of the information provided through the podcast. The opportunity for collegial conversation accounted for the aspect of the cognitive learning theory that necessitated learner engagement with others while grappling with the learned information. While the cognitive learning theory itself was rather broad, Gagné's events of instruction provided a more concise focus for learner processing and action while engaged in the professional learning experience (Islam & Salam, 2019). The selection of the correct events of instruction and situating them in a specified order can ensure that the professional learning session or experience is more effective (Islam & Salam, 2019).

Unified Theory of Acceptance and Use of Technology

The theoretical framework best suited for this research problem was a variation of

the technology acceptance model (TAM) known as the unified theory of acceptance and use of technology (UTAUT). This theory was especially useful within the context of this study because it is necessary and crucial for organizations to have a better understanding of how new technology or innovations are accepted by members of an organization to increase the chance for positive outcomes to result from its application (Venkatesh et al. 2003). Venkatesh et al.'s (2003) UTAUT is a model for gauging whether an organization's members would accept or reject new technology and how these members would put it to use. Their work determined that three elements applied in concluding if the members of an organization accepted new technology or innovation: performance expectancy, effort expectancy, and social influence (Venkatesh et al., 2003, p. 467).

How UTAUT Aligns with Current Study

Not enough was known about how educators who took part in podcasting listening, integrated first with personal journal reflections and later with a collegial conversation, would be willing to accept this mode of learning a form of professional development. Using the UTAUT helped to explore whether teachers would accept or reject this form of professional learning so that the intended positive outcomes would be realized. The theoretical foundation aligned well with three of the four aspects for implementation that affect a learner's behavioral intentions and the ways they used the technology. Performance expectancy was considered first. Because performance expectancy was directly aligned with how a user believed that the proposed technology (in this case, podcast listening, reflection journaling, and collegial conversing) would support their teaching practice, it was important to learn more about their experience with

this form of professional development. This provided a means of ascertaining whether they developed stronger intentions and application in using the professional development. If the teachers believed that the professional learning they experienced supported their work in the classroom and their growth as a teacher, they had a greater likelihood of behavior intention and behavior use. If they reported that their experiences did not support their growth as practitioners, a more likely conclusion was that they would have rejected this form of professional development.

Similarly, effort expectancy also necessitated having a better understanding of the teachers' experiences with the proposed professional development mode in order to determine if teachers had an ease of access during their experience. If the professional development experience was one such that individual teachers had ready access and found the ease of use to be simple, they were more likely to accept such a mode of professional learning. However, if the converse was true, and teachers experienced difficulties or experienced obstacles during their participation in this form of professional development, they would likely have rejected the professional learning model because it was not conducive to their needs.

Finally, social influence was a consideration for teachers' acceptance or rejection of the professional development model. It was essential to understand whether teachers found personal meaning in the professional development experience so that a better determination of their acceptance or rejection could be hypothesized. If the social influence was found to be low, then it would have indicated the teachers would be less likely to accept this form of professional learning to enhance their growth and

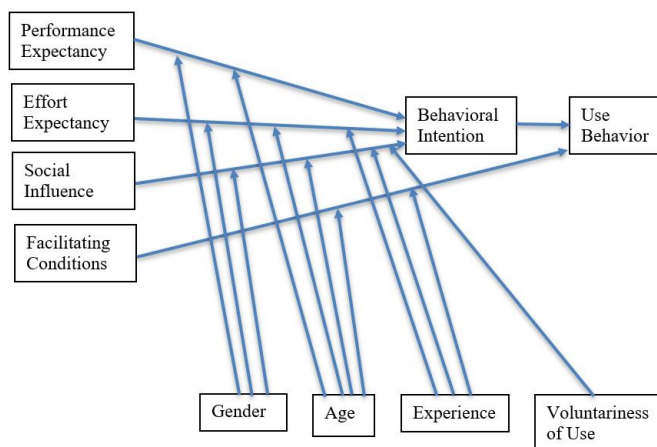
development as educational practitioners. But if there was a high degree of social influence, it could have been postulated that teachers found meaning in this form of professional development and would have supported its continued use as a part of their professional learning practice.

Though age was the only aspect of the theory that directly influenced performance expectancy, this factor was accounted for in the parameters of this study. Because performance expectancy explained how much a learner believed the technology would support their work, only veteran teachers who had been teaching in the field for more than a year were invited to join the study. This ensured that with prior experience as both teachers and professional learners, educators had a better idea as to the kind of professional learning that best influenced their personal professional learning. The same was true when considering effort expectancy and the factors that influenced it. Effort expectancy was affected by age, which was another prime reason for using veteran teachers in this study rather than those who were novices and new to the field. However, effort expectancy was also affected by experience, as was social Influence. These experiences, as described and analyzed through this research, when coupled with performance expectancy, provided a more accurate conclusion as to whether teachers intended to use the proposed form of professional development. Their experiences also provided a better means of gauging how they might have used it for future lesson and unit planning following their experiences. This provided another direct link to the intentions teachers had toward using the technology and their future use behaviors in the plans they created.

Though the UTAUT was the theoretical framework that best aligned with the study, it is important to note that the instrument used by Venkatesh et al. (2003) was not employed in this research. I used only the concept of the definitions that had been created for the theory, and I did not apply the definitions as they were developed for quantitative purposes. The following figure best shows the interactions between the various aspects of the theory and provides further definitions of all the components within the theory.

Figure 1

The Venkatesh et al. Research Model for UTAUT



Nature of the Study

This study was qualitative and used a case study approach. As a case study typically uses at least three data points to determine themes and related information, it was the best choice for analyzing the information given by teachers concerning their experiences (see Burkholder et al., 2016). Using case studies to explore more modern events is preferable as they provide opportunities to personally interview those directly involved and to provide a first-hand account of an observed situation (Yin, 2009). This

kind of qualitative method also provides greater details in a more realistic setting that stay true to the actual circumstances and situations, leading to new discoveries to better understand issues and problems (Shaban, 2009). The strengths of this method include the number of descriptions that could be attained from multiple data sources as well as the opportunity for study participants to feel levels of comfort and familiarity with the methods. It was less intrusive than other methods, allowing for opportunities for deeper exploration and greater description. This method aided in creating a better understanding of the experiences of secondary educators and their attentiveness and participation in podcast listening professional development. It described their experiences about podcast listening and reflection writing and podcast listening and collegial conversation. It also described any possible plans for future use in the classroom following this type of educational professional development.

Data for this research study included personal interviews, individual journal reflections, and researcher observations of collegial conversations with secondary teachers following podcast listening. The participants could have included secondary teachers who had been selected as District Teachers of the Year from the state of South Carolina, secondary teachers from the 2018 State Teachers of the Year cohort, secondary teachers who were members of the Palmetto State Teachers Association, or secondary teachers who were currently teaching in the classroom and participating in professional development experiences designed by their school or districts. Each of the analyses from the three modes of data collection was gathered, and their results were triangulated to determine whether shared themes for experiences emerged from the exploration. Another

reason the use of a qualitative study was best suited for this research was that it provided an opportunity to triangulate data taken from personal journals, interviews, and focus group observations. Reoccurring themes from each of these was identified to determine if shared experiences existed and how they were described by participants.

Definition of Terms

The Venkatesh et al. (2003) outlined important aspects that must be considered in the UTAUT so that educators developed a reason for using the technology as well as a true application of the technology within their work.

Behavioral intention: The aims a teacher has concerning engaging in a particular behavior associated with new technology.

Effort expectancy: The teacher's feeling concerning how easily he/she will be able to use new technology.

Events of instruction: Kretchmar (2018) explained Gagné's "nine events of instruction" as intentionally created activities that enhance training for specific skills and information. The nine events of instruction are acquiring reception of participant thinking, providing an explanation of what is to be expected from the training, reviewing previously acquired information, displaying new information, facilitating learning through relevant schematic development, providing learners the opportunity to perform new tasks or apply new information, offering constructive criticism to aid in improvement, evaluating revisions in the application of learned information, and increasing learner use of new information or skill in later applications.

Experience: The teacher's skill or information acquisition over the course of time,

especially that garnered via professional training.

Facilitating conditions: The teacher's belief that the current system is supportive of the implementation of new technology.

Performance expectancy: The teacher's belief that the implementation of a new technology will promote their skills in a specific area.

Professional learning experiences: The encounters, interactions, and perceptions of educators that result from their involvement with and participation in activities that are intended to grow their work as professionals in the field of education.

Social influence: The teacher's recognition that others who are important in their field feel as though new technology should be implemented.

Use behavior: The way in which a teacher conducts him/herself during the use of new technology.

Voluntariness of use: The teacher's choice to act of their own volition.

Assumptions

Given that cognitive learning theory states that adult learners learn best through active engagement and collaborative application, several assumptions were made. One assumption was that teachers might be more deeply engaged in their own professional development if they were given a chance to become involved in independent podcast listening while participating in an activity of their choice (or non-activity, where participants may simply choose to sit and listen), followed by reflective journaling through a recording method of their choice, and concluding with an opportunity for collegial conversation conducive to collaborative planning. They seemed to have

described a preference for this type of professional development and seemed to have accepted it as an improvement made to PD. Choice in professional learning could more deeply motivate teachers to be more thoughtful and intentional about their craft and in determining ways that best enhanced their work for and with students in their classrooms (Saclarides & Lubienski, 2018). Teacher autonomy is important in their professional learning” (Okay & Balçikanli, 2021).

There were a few other final assumptions related to this research experience. It was first assumed that each of the participants in this study would honestly engage in the proposed professional development treatments and would provide candid feedback concerning experiences. It was also assumed that participants would describe and generate ideas from the listening and collaborative experiences that could be further developed for classroom use. Furthermore, it was assumed that the participants who joined this study would engage in each of the proposed professional development activities in order to provide a full description of the three experiences (podcast listening, jot journaling, and collegial conversing) as well as how the three combined as a single professional development session. These assumptions were the most meaningful to the research study. They provided descriptions of the applications of the professional development experience (or lack thereof) as they were or were not developed by the research study participants.

Scope and Delimitations

The delimitations of the study were the research questions, the inclusion of participants, and the theoretical framework selected for this study, as they served to set

the parameters of my work. The use of podcasting to disseminate professional development content was selected based on the popularity of this form of information exchange. Similarly, collegial conversation was included because of the need for adult learners to collaborate with others while they are engaged in the learning process in order to more fully understand and apply the information. Finally, the choice to use secondary teachers was based on my experience as a researcher with teachers from these grade levels. As a former high school teacher who has worked with learners ages 13-19, I was better aware of the past professional development experiences teachers from these grade levels have had and more inclined to understand what their needs were for professional learning that benefited the secondary classroom and their practice as educators.

Limitations

One of the greatest limitations of this study was the sampling of the population. District Teachers of the Year (DTOY) represent educators who are described as valuing education in a genuine form, willing to provide learning to colleagues through the sharing of their own instructional repertoires, and engaging in continuous professional learning in their field (Gagnon, 2019). These teachers are often intrinsically motivated, which compels teachers to continue in their work despite being unrewarded (Bukhari et al., 2021). Because the District Teachers of the Year were representative of this standard of educator, they might have already been driven to improve instruction and therefore valued professional development experiences more so than their colleagues. However, though they might have been compelled to engage in professional learning, their experiences with this sort of PD remained invaluable in gauging how it might be accepted

or rejected by their collegial peers, and their insight also offered methods that would lead to further improvements for later research. I also assumed that my subjects would respond fully and truthfully to my questions. To mitigate this threat, I piloted my protocol to test for clarity and lack of suggestion or bias.

Significance

This study contributed to a solution for teacher acceptance of this PD model as it might be provided through school or district-led professional development, as this model might be considered well-accepted by participants. It can provide schools and districts with another mode of professional development that was teacher-focused and guided by choice due to the convenience that part of the professional development was offered asynchronously. This ensures that obstacles to traditional face-to-face professional development are addressed. It might be considered a preferable option, rather than participating in passive learning that seems unrelated to teacher needs, content areas, or interests. The study provided initial evidence that this conceptual model of professional development might be accepted.

This study can also inform further studies of acceptance that were more distinctively designed by refinements and improvements to this model. It also provides an opportunity for further studies that can further test its efficacy when applied to specific content areas or instructional strategies. Additionally, this study uncovered a relationship between a professional learning experience that teachers viewed in a positive light and their likelihood of acceptance. However, it should be well understood that the efficacy of this form of professional development model was not being studied; only the acceptance

or rejection of this form of professional learning was being explored and described.

Summary

Chapter 1 provided an explanation for the need that educators have for continual professional development in their field. It also pointed out issues that arose from the implementation of professional learning. The purpose of this study was to explore and describe the professional learning experiences of secondary educators as they participated in a new hybrid form of professional development that integrated the technology of podcast listening, independent teacher reflection through journaling, and collegial collaborations through conversations about the podcast listening and reflection. Through this study, a better understanding of secondary teacher engagement in this form of professional development was ascertained and helped to determine whether the problem of teacher acceptance or rejection of this form of professional learning might take place. The study offers support for the use of hybrid professional development opportunities. The theoretical framework supported the three research questions in that it reinforced concepts that influenced teacher intentions for using the professional development model and the employment of learned information experiences in the professional development experience. Assumptions concerning teacher choice and autonomy were discussed, as well as the scope, delimitations, and limitations associated with the study. A glossary of terms was provided to allow for greater clarification of the information to ensure that all major aspects of the theoretical framework were clear.

Chapter 2: Literature Review

This chapter explains the theoretical framework applied in the study and the rationale for the study's treatment. The next portion of the review provides a greater understanding of professional development and its role in education. This section explores the history of professional development and the changes it has undergone through the years. Then the discussion covers podcast listening as it has been used in professional development. Subtopics include the history of podcasting and how it began and has changed over the years, podcasting's use as professional learning in the realm of higher education, and podcasting's use for professional development in occupations outside of education. Two further topics are also examined: the use of teacher reflection as a mode of professional development and the role collegial interaction has played in PD in recent years.

Search Strategies

There were several search strategies used to find information for the literature review. Most of the literature review identified ways in which podcasting has been used to deliver information to adult learners over the course of the past 3 years. The inquiry sought out the roots of educational PD as well as the ways in which podcasts were developed and how they have been used to deliver a variety of content. Specific keyword searches included *education*, *podcast*, *professional development*, *professional learning*, *higher education*, *online pedagogy*, and *events of instruction*. Beyond looking for information regarding professional development related to podcast listening, I also searched for professional development using personal reflection and collegial

conversations or collaborative group efforts. Keyword searches for this included *teacher reflections*, *teacher collaboration*, and *collegial conversation* as they connected with educational professional development.

Following screening, this literature review includes 45 sources, ranging from 2000 to 2022; however, most of the source material is concentrated between 2018 and 2022. These sources focused primarily on peer-reviewed articles, but some source material did come from professional publications and educational journals. Initially, 22 articles were found during the first research attempts, but the number of included articles increased as further inquiries were made through reference materials and more in-depth research. Sources were categorized according to the thematic information they provided or addressed and were filtered using a literature review matrix, which aided in determining the framework, research questions, outcomes, and needs for further study. Certain criteria were set to determine each article's standard for inclusion: how the study had researched the use of podcasting as a means of communication and professional development or how well the study had researched the use of reflection or collegial collaboration as a means of professional development. There were 35 articles that met these standards and were included in the literature review. The literature review concerned the use of podcasts in delivering information in higher educational settings and in the medical community, so there were no substantial studies concerning the use of podcasting coupled with independent journal reflection and collegial conversation. The results of the identified, applicable studies follow.

Theoretical Framework and Rationale for Treatment

The UTAUT helps to explore how an organization, in this instance a school or a district, might gauge how its members (faculty, staff, teachers) might accept and use this technology as a mode of professional development (Liu & Huang, 2015; Venkatesh et al., 2003). While there are many theories concerning how and why technology eventually becomes accepted by members of an organization, the UTAUT most completely explained these. Venkatesh et al. analyzed eight major technology acceptance models to first extract similarities and differences among them. Following this analysis, these models were empirically juxtaposed to develop a criterion that could be used to build a new theory. Finally, the new model, the UTAUT, was designed and tested in order to substantiate the team's claim that UTAUT was a better model for gauging whether an organization's members would accept or reject new technology and how these members would put it to use (Venkatesh et al., 2003). In its application in other fields of study, the UTAUT has showed its "efficiency, validity, and reliability" (Jahanshahi et al., 2020, p. 1214).

There were several concepts in this theory that made it especially applicable to my research. The first of these was the concept of "performance expectancy." This denotes the level of belief that a user has that the implementation of new technology or innovation would improve their work (Venkatesh et al., 2003). Teachers must have experience feeling that the information they were provided through podcast listening and future collaboration with colleagues enhanced the work they do in the classroom. The second concept that applied to my study was "effort expectancy." This is directly related

to the ease a teacher feels with implementing a specific technology or innovation (in this case, podcast listening, journaling, and conversing collegially) into their current system of professional development. While the third factor of “social influence” was not directly studied in my research, there was an opportunity to explore teachers’ thoughts as they shared the descriptions of their experiences in both collegial conversations and individual interviews when data were collected. The fourth concept of “facilitating conditions” was also observed when teachers described their thoughts concerning the podcast listening, journaling, and collegial conversation experience as a form of professional development and how they might use these for future professional growth. Finally, both the outcomes of “behavioral intention” and “use behavior” were considerations in my research as they affected the experiences that participating teachers described. With “behavioral intention,” my research explored any kind of goals or motives that were associated with new technology or innovations, and with “use behavior,” there were direct observations made concerning the application of podcast listening through the collegial conversations shared by participating teachers as well as through the analysis of each participant’s jot journal and descriptions of their experiences in the individual interviews.

Cognitive Learning Theory and Events of Instruction

Learners must be active participants and must learn by doing while they are receiving information based on cognitive learning theory (Kretchmar, 2021). For effective learning, learners must have chances to engage with peers and fellow learners as they master the skills or learn the content in a purposeful manner. With this information in mind, Gagné et al.’s (1992) events of instruction model, which is comprised of

categories, conditions, and phases of learning, was used to design the treatment for this research. Gagné's events of instruction are an application of cognitive learning theory (Khadjooi et al., 2011). These applied to how adult learners react to new learning, focusing on the variety of situations and environments that surround the learning experience (Khadjooi et al., 2011).

Though there are nine components within Gagné's model, this study focused on exploring the presentation of information, the provision of instructional guidance, the opportunity for action, and the provision of commentary (Khadjooi et al., 2011). The presentation of information took the form of both podcast listening and collegial conversation as both provided new instructional methods or interpretations of these. The provision of instructional guidance was met by collegial conversations as they grappled with possible methods for implementing newly learned information. The opportunity for action also involved participation in collegial conversation but also included reflective journal writing following podcast listening. The act of reflecting provided participants with a way to connect new and prior knowledge to grow ideas. Finally, the provision of commentary was met by both reflective journal writing and collegial conversation as new ideas were penned, shared, and developed. Interpreting the qualitative data in terms of these steps provided insight into ways that educators might become engaged at a deeper level in professional development experiences and might plan to use their learning in meaningful ways in future lesson developments.

Further support for the use of this research plan and approach came from other researchers who used the events of instruction model. Chen and Johannesmeyer (2021)

proposed a practice that involved having professional learning leaders deliberately create a plan for learning that intentionally included active learning strategies. These were selected due to their connection to prior learning experience and knowledge as well as their dedication to following the plan and utilizing applicable supporting documents, tools, and technologies in order to ensure that learning experiences could be optimized. Furthermore, Chen and Johannesmeyer employed the use of active learning coupled with metacognition. This use of the events of instruction model aligned with the approach developed in my research plan. The presentation of the new information was intentional in the use of active learning strategies as it required participants to reflect on the new learning in the form of a jot journal and during a shared collegial conversation. This supported the use of metacognitive practices. My approach also included resources that maximized the learning experience; these included the podcast and the shared discussion with colleagues. Additionally, my research approach also provided professional learning that built upon each teacher's prior knowledge and experience in the classroom and in other professional development sessions in order to grow their practice more deliberately. Through new interpretations of Gagné et al.'s cognitive learning theory and application of activities related to the events of instruction model, my research approach planned, created, and delivered professional development experiences that provided a new exploration as a means to gain new insight and information.

Literature Review Related to Key Concepts

Professional Development in Education

Professional development and furthering the professional learning of teachers

have had a long history in the United States. According to Diorio (2021), the formal education of children in this country began in 1647. However, Frontline Technologies Group (2022) explained that educational training did not begin until 1823. At this time, a forerunner to today's Colleges of Education was founded in Vermont's Columbian School. In 1837, an official method for delivering educator professional development in Massachusetts was instituted by Horace Mann (Frontline Technologies Group, 2022). A formal educational preparatory school was created at Columbia University in 1887 and was developed with the intention of ensuring quality training for educators in their work with students (Frontline Technologies Group, 2022). New colleges of education continued to be established in some post-secondary schools, and in other places, the original schools grew to become colleges or merged to become universities. Then and now, colleges of education, however, only provide training for preservice teachers and do not include or give credit for in-service training for teachers planned by their districts or schools. While teachers can receive recertification hours toward their licenses by taking graduate-level coursework through these colleges, they are typically not a part of an in-service professional development plan created by school or district administration.

Educators have always known that the process of learning is an ever-changing landscape that transforms as new information is created and new implements for student learning are developed. These may include new teaching methods that better meet diverse learning needs, new tools and resources that have been procured by the administration to aid in instruction, or a multitude of informative sessions that help teachers address many student needs. Therefore, teacher training continues to grow. One reason for this is to try

to ensure that teachers continue to excel in their craft by adding to their knowledge and instructional repertoire. Another reason is to meet the evolving needs of new student learners from diverse backgrounds.

While the federal government had previously provided funding for professional development, the 1965 creation of the Elementary and Secondary Education Act (ESEA) was a landmark in the provision of further monetary support for continued professional learning for teachers. It sought to ensure that even after their initial teacher preservice training, teachers would continue to expand their knowledge in the profession (Frontline Technologies Group, 2022). As an outcome of this educational reform process, the National Staff Development Council (NSDC) was created and had an initial meeting in 1969 (Learning Forward, n.d.). The outcome of this meeting was a plan for the creation of professional development (also known as in-service) standards for certified, licensed teachers that would evaluate professional development practices. This was crucial for teachers because, though the primary content of their undergraduate training may have been broad and overarching in terms of both content and pedagogy, in-service training within individual districts and schools provided professional knowledge for teachers to meet the needs of learners specific to those regional areas. The creation of NSDC and its pledge to have a method to evaluate professional development had the goal of providing differentiation in instructional methods and strategies based on the needs of learners within a particular area.

Though goals were developed to ensure that differentiated learning strategies meet the needs of students, according to Krickovic (2002), the 1970s were still

characterized by the use of uninvolved, auditory professional development experiences that did not reflect the goals developed for younger learners and did not meet the goals of the instructional practice. Continuing to use weak PD through lecture-style presentations did not achieve the goals for effective teaching either. It was apparent in the later decades that this type of professional development experience did not lead to greater learning by the students of teachers who had undergone said training (Krickovic, 2002).

Greater changes to professional development for educators slowly made their way into districts and schools as stakeholders learned more about the lack of effectiveness the current modes of PD were having on instructional strategies used by teachers and student outcomes. According to the NSDC (2001), lecture-style professional development sessions began to become passé in the mid-1990s. The NSDC had originally issued their expectations for staff development in 1995 to guide in making PD improvements, and these were later revised in 2001. The original 1995 NSDC standards stated that professional development experiences should be comprised of three parts: “context, process, and content” (Krickovic, 2002, p. 23). Part of the context portion was potentially addressed through the employment of professional learning communities (PLC), which had been introduced just a few years prior.

In 1990, Peter Senge published a book popularizing the development of professional PLCs for teachers, a clear alternative to traditional professional development models (Frontline Technologies Group, 2022). The necessity of PLCs that are organized to include various educational stakeholders with shared goals for their individual schools and for the district as a whole was emphasized (Krickovic, 2002). Later in 1999, NSDC

began a process of assessing the efficacy of professional development (Frontline Technologies Group, 2022). These crucial components—context, process, and content—continued to be emphasized in the revised standards as they were evaluated and published in 2001 (National Staff Development Council, 2001). The revised standards continued to highlight the stated requirement for PLCs and reiterated that PD must include supports that bolstered cooperative engagements among educational stakeholders and resources that provided information from data, evaluations, and research that could improve teacher knowledge and implementation of strategies (National Staff Development Council, 2001).

Professional development for teachers received further support from the federal government in 2001 with the passage of No Child Left Behind, which supported long-term professional development for teachers' educational professional growth; further funding for teacher professional development arrived in 2010 through President Obama's American Recovery and Reinvestment Act, and in that same year the NSDC (which by this time was known as "Learning Forward") acknowledged the importance of proven learner results from professional development sessions, rather than simply attending (Frontline Technologies Group, 2022). The necessity of teacher engagement within their own professional learning was obvious and was a clear policy goal. Over the course of many years, more educational stakeholders came to agree that effective teachers could not simply be passive learners but must instead be involved in the learning process as novices and experience their own growth through dynamic teaching strategies; thus, new strategies had to be considered for modes of delivery that would lead to greater teacher

effectiveness in their practice.

One such strategy was the Japanese Lesson Study; Groth et al. (2020) explained that this PD method benefited participants through the action of collective goal setting for student outcomes, lesson planning in collegial groups, and analysis of lesson effectiveness following its conclusion. Other benefits of this type of PD activity were its assistance in bolstering teacher confidence, using student interests to drive instruction, commitment to colleagues, and uplifting school climate (Groth et al., 2020). Groth et al. explained that the Japanese Lesson Study had been used in numerous settings, but Duez (2018) clarified that despite its adoption and implementation in different ways across the United States, few studies existed that showed how this form influenced teaching strategies and student learning outcomes. Because of these conflicting outcomes, the use of this PD method in the United States was not known.

In 2015, the Every Student Succeeds Act (ESSA) set the standard for six significant professional development components (Frontline Technologies Group, 2022). These vital professional development features set a goal to ensure the professional learning's value and efficacy by defining that each teacher growth offering was maintainable, rigorous, aligned with the workday, cooperative, focused on the analysis data, and concentrated upon learner outcomes (Frontline Technologies Group, 2022). The former "sit-and-get" professional development delivery methods that did not guide teachers to an improvement or change in their practice were no longer deemed acceptable, and newer, more effective modes of learning and implementation continued to transform and evolve. While NCLB and the Every Student Succeeds Act both set

policies to improve PD for teachers, this did not necessarily equate to real, transformative change across the board. Each state and United States territory has its own Department of Education, which holds control over how PD can be provided through those offices. Similarly, every district maintains local control of how PD can be offered, and this can vary greatly depending on the instructional leaders and decision-makers during any given time. It can even vary among schools within districts. Therefore, while progress has been seen and, in some cases, measured and documented, it cannot be observed in all educational settings. This is why continued PD practice improvements remain important.

Professional development opportunities for teachers continued to grow for the benefit of learners beyond instructional practices. Other professional development offerings included social-emotional learning, equitable practices, improving diversity and tolerance, trauma-informed teaching and understanding Adverse Childhood Experiences (ACEs), and improving digital/virtual learning through pedagogical and instructional practices (Frontline Technologies Group, 2022). The varied needs of learners demanded that educators experience training that went beyond the scope of both content and pedagogy.

Dam et al. (2018) investigated the ways in which teachers willingly implemented educational changes taught in professional development sessions, and they identified the possession of intentional decisiveness in making a change to classroom instructional strategies as a vital component of PD implementation. This idea coincided with the Every Student Succeeds Act's professional development component of learner outcome concentration as it focused upon the educators' determinations to seek greater student

edification by means of goal/intention setting. The qualitative study used interviews with nine teachers to develop case studies with teacher intention-setting through segmented lessons (Dam et al., 2018). The participants in this study seemed to display feelings of greater control over their classroom after setting teaching intentions and describing thoughts of achievements and success within the lessons. The results showed that intention setting may have played a role in positively influencing participants to implement the proposed educational practice, but these could not be correlated conclusively (Dam et al., 2018). Although these were not deemed as necessarily causal, the design of this study through case study methodology provided the opportunity to study teacher responses to professional development in myriad ways that could later be triangulated for a more descriptive picture of their experience.

While these changes were implemented for teacher professional development practices, the practice of PLCs continued to grow and improve as well. As previously discussed, PLCs were developed so that a variety of educational stakeholders could join as one to discuss ways to achieve the goals of their school and/or district. PLCs have also been studied for their influence on teacher success in their lesson inception, delivery of instructional content, and reflection upon practice effectiveness.

Ong-Art Namwong (2021) shared insights concerning some of the positive and negative outcomes associated with PLCs. PLCs were described as educational participants who worked with one another to grow in knowledge and implementation of teaching practices (Ong-Art Namwong, 2021). Because teachers served as an integral part of this type of professional development, PLCs were intended to foster a greater

sense of ownership toward ensuring students retained content and moved forward in their academic journeys (Ong-Art Namwong, 2021). The concept of PLCs was an important one for this study. While the professional development experience was an individual one in terms of initial experience and response, the act of coming together with colleagues for discussion and potential planning was a necessary part of the case study because it provided the opportunity for teachers to work together to apply what they found most important or striking in their individual podcast PD learning.

This circled back to the Groth et al. study concerning the Japanese Lesson Study (Groth et al., 2020). Key elements for this kind of PLC required that it include collegial planning of the lesson as well as collegial debriefs in the form of a reflection to make changes to the instruction. These professionally supportive conversations and the necessity of lesson reflection were both further explored in a later section of chapter two concerning collegial dialogue and discourse of professional learning information and reflection upon classroom instruction.

However, changes were still needed in the delivery of professional learning for educators. Despite all the initial teacher training and ongoing teacher professional development and the changes in delivery modes through the years, Mirel (2011) acknowledged that there was a growing gap between teachers' content knowledge and their training in instructional strategies. Mirel argued for allowing teachers as experts to determine the best instructional strategies that would impart the skills and standards in given content areas for improved student understanding (Mirel, 2011). Mirel concluded that not only was professional development necessary for educators to continue to grow

their instructional repertoire but also other professional development experiences focused upon the curriculum and content educators provided to their students must be present for teachers to continue to expand their knowledge of content and the application of the educational state standards within each curricular area. Thus it was determined that professional development must serve the needs of teachers not only in terms of how they delivered information but also based on the quality of the content they transmitted to students.

PD that can be useful for teachers in their work to improve student learning outcomes must address one or more of the following areas: content knowledge, pedagogical content knowledge, and principles of instruction. Insufficient understanding of content continues to inhibit student growth as do ineffective instructional strategies. Professional development experiences that can effectively improve student outcomes must address both student misunderstandings of content and how to correct those student misconceptions. In considering the outcomes determined by Mirel's study, the recommended PD experiences went beyond the traditional norms such as lectures, keynotes, book studies, and PowerPoints and offered teachers new learning opportunities that better aligned with their needs as individual teachers in their field. Mirel's study lent credence to the argument that uniform professional development experiences would not prove to be useful for all teachers and that it was preposterous to think that educational growth should ever be done through a "one-size-fits-all" approach.

Mirel's work again reinforced the necessity of the creation of professional development learning options that provided choices and allowed educators to select a

learning experience specific to their needs. However, as it offered nothing in terms of the strength of evidence, the article was challenged for its validity, reliability, and applicability to varying groups.

Podcasting for Professional Development

The varying methods of PD were intended to ensure teacher grasp of specified academic concepts; the six key professional development elements were defined by the Every Student Succeeds Act and could all be supported using podcasting platforms centered on educational topics or instructional methods.

Podcasting's Past

Podcasts are not a new innovation in the technological world. Their past has origins in broadcast radio. Berry (2006) referred to podcasting as a communication mode that merged mobile Internet devices and aural media. Podcasting was created when the creator of Really Simple Syndication (RSS) Dave Winer and radio and internet presenter Adam Curry began to work to create ways various internet content could be procured by a more automatized method (Berry, 2006). From there, an uncomplicated program was developed and published for users to download and expand in their own personal ways; users began to make recordings and then showcased their own productions on the internet while simultaneously participating in discussions with other patrons (Berry, 2006). A key component to consider in the former description was “personal.” Listeners were able to make choices for what they wanted to hear and then become creators of content.

This was not a far cry from the origins of radio, podcasting's predecessor. It was created in the 1890s as a means of auditory exchange between two different endpoints;

however, other point proprietors began to pay attention to the communications being transmitted (Berry, 2006). This resulted in the creation of the British Broadcasting Corporation during the 1920s (Berry, 2006). The popularity of radio grew until, as Gardner Campbell (2005) concluded, it began to provide bland, overused content that offered little engagement for hearers. *Statista* (n. d.) corroborated this decline in its publication concerning the evidence provided by radio listeners from the United States and Canada for why they no longer selected radio as their preferred listening engagement. More than twenty percent of those surveyed explained that they had a greater number of choices now than in previous years, had broader access to audio services, and had elevated access to digital applications that do not have advertisements (*Statista*, n. d.). This lack of disengagement through a reduction of program offerings differed greatly from podcasting (Gardner Campbell, 2005).

Wise (2022) took an in-depth look at podcasting statistics and compiled data that supported audience predilection for this auditory engagement source. Wise's data compilation showed that there were more than two million published podcasts around the globe (Wise, 2022). Wise also pointed out that seventy-five percent of American podcast audiences engaged in listening to this medium in an effort to learn new information; specifically, information that centers on education boasted of an audience who identified that their main objective for listening was to glean new information (Wise, 2022).

However, the strength of the evidence presented by Wise was unreliable. There were no statistics provided for how many of these audience members were educators; therefore, these statistics could not be validated for their use among educational

stakeholders. While the lacking strength of evidence did render Wise's statistics questionable, this opinion was also arguable due to television's attrition of radio audiences, and Banerjee (2022) pointed out that the radio industry did appear to be recovering after a downturn during the COVID-19 pandemic. However, nestled within the argument of radio's continued popularity, Banerjee conceded that leaders in the radio industry made changes in programming due to the obvious preference for other forms of listening; Banerjee quoted Mirchi Radio Chief Executive Officer Prashant Panday in the explanation that programming changes have been made based on the industry's knowledge of their listeners' enjoyment of auditory narrative and that they have added these narratives to their radio podcast programming (Banerjee, 2022). Thus the growing popularity of podcasting was undeniable.

In circling back to the conclusion of Gardner Campbell's original report, there was clear support for the concept of using podcasting for greater engagement in professional development. Professional development sessions of the past could very much be considered to have become like that described by Gardner Campbell: dull, banal, and unappealing; podcasting, on the other hand, provided listeners with opportunities for active engagement and had the potential to spawn further self-inquiry of the subject matter in order to participate in generating new, more rigorous content. It was also important to note, however, that podcasting was simply one type of medium that had the potential to do this, and other media genres had this potential as well.

Riverside.fm Team (2021) reiterated Wise's 2022 podcasting statistics that posited reasons for podcasting listening; again, these included opportunities for new

learning as well as for relaxation and entertaining diversion. In its podcast consumer survey, Edison Research (2019) reported that more than fifty percent of Americans over the age of twelve have engaged in podcast listening, and more than forty percent of listeners who subscribe to podcasts on a monthly basis described an increase in their listening habits (though it must be noted that no mention was made as to what the previous listening habits had formerly been, so the lack of evidence made this questionable). While this report seemed promising, these statistics, too, were questioned as they bore no confidence intervals that might have deemed them more reliable, and the report was not as useful as a valid source of information. Edison Research (2021) explained that the resource used to record and compute everything listeners heard over a 24-hour span of time, known as Share of Ear, experienced expansion since 2014. Share of Ear recorded twice the activity in 2019 with a 122% in growth (Edison Research, 2019). Information provided from both the Edison Research survey and its Share of Ear program implied the power of podcasting in the lives of listeners and showed that podcasting preference continued to grow. This further indicated a preference for the reception of content through podcasts and a growing inclination for it in both professional and personal lives. However, as this research provided no confidence interval or quantitative data, it also showed a lack of evidence and could not be confirmed as a substantial resource with high confidence.

While podcasting as a whole could have been argued to have potential as a method for engagement, podcasts themselves varied in type, structure, content, and length. Simply focusing on podcasting as a whole was not appropriate for exploring and

describing its effectiveness as a professional development delivery method. This also required delving into the varieties of podcasting, specifically educational podcasting, to describe which type might have had the greatest influence on professional development engagement for secondary educators. In a qualitative study, Drew (2017) explored three genres, the “Quick Burst,” “the Narrative,” and “the Chat Show,” used specifically by educational podcast producers to provide insight into best practices educators could employ when designing an instructional podcast (Drew, 2017, p. 201). The study was performed through multiple textual analyses of thirty-five podcasts found to be frequently used across three different podcasting companies. A genre analysis approach known as the “move-step approach” was used in this study and was selected as it provided a way for researchers to explain the way selections of the writing worked relative to its intention (Drew, 2017, p. 204). Drew analyzed the first three episodes as well as five others chosen arbitrarily and viewed each in terms of the type’s reason for communication, recurring structural features, and “rhetorical steps taken” because of audience comprehension of information (Drew, 2017, p. 204). Drew found that podcasts employing either the “Narrative or Chat Show” approach should be explored more deeply as they have a greater likelihood of engaging listening learners and reinforcing learning more substantially. Drew explained this as harnessing the strength that podcasting “voices” have due to their implementation of storytelling within the learning content but did not provide any solid evidence for how or why, which raised a question of validity for this source (Drew, 2017, p. 209). Also, as this was a qualitative study, the effect size was not measured and, therefore, could not be included as adding to the strength of this study.

Romero-Ivanova et al. (2021) supported the use of both voice and the act of storytelling to deepen audience engagement and understanding through a qualitative peer review study of sharing digital stories about preservice teachers. Through the use of grounded theory, the social constructivist theory that defines learning as a social act in which participants both contribute and collect information, researchers studied a total of 31 digital stories from two separate preservice teacher cohorts (16 from the 2018-2019 cohort and 15 from the 2019-2020 cohort). These 31 digital stories were then analyzed and coded based on seven key storytelling components to identify themes and designate specific codes that aligned with each. In their outcomes, researchers suggested that story sharing with evaluation and feedback provided a means by which teachers could connect and engage on a more rigorous level with greater depth, but their work was limited solely to relationships they could observe and note (Romero-Ivanova et al., 2021). Another problematic aspect of this study was the lack of explanation for how sample sizes were selected, although researchers explained that they were forced to use the stories, plans, and responses supplied by the two cohorts as they lost the ability to complete their study as originally planned due to the COVID-19 shutdown (Romero-Ivanova et al., 2021). There was also a lack of evidence for how this method of digital storytelling improved student outcomes; these aspects combined raised issues concerning this source, questioning both reliability and validity.

The use of a content-sharing mechanism also harkened back to Barry's (2006) conclusions that deemed podcasting preferable over radio because audience members could control how content was listened to, reviewed, and repeated and then could

participate in discourse through conversation with others. The act of dialogue through the back-and-forth exchange of ideas allowed for not only a variance of the subject matter providers offered in terms of opinions, information, and applications concerning the content in question but also easily lent itself for further exploration among fellow audience members after the podcast episode concluded. This proved to be highly useful in the engagement of educators in the discussion and implementation of new ideas learned from provided educational podcasting.

Podcasting and Professional Development in Higher Education

Just as the concept of podcasting was not a brand new idea, the use of this medium as a source of information for learning was not new either. Podcasting had been used for the dissemination of information to both students and educational leaders in the realm of higher education. It had also been used with specialized subgroups. In a quantitative study that analyzed the listening tendencies of Adapted Physical Education teachers, McNamara (2019) studied the various podcasts most used by this select group of educators to engage in more learning opportunities dedicated to their teaching craft by examining how listeners had reacted to the podcast episodes through a variety of responses. McNamara focused on forty-seven episodes and accompanying blog posts for “What’s New in APE (Adaptive Physical Education)?” and used data from both Blogger and SoundCloud to determine the level of interaction from audience members during these episodes. Though the sample size was undefined, McNamara reported that over a 3-year period, from 2015-2018, the podcasts and blogs combined had 73, 344 interactions, which averaged 24, 448 per year, with the blog posts having 81% of the interactions and

the podcast having 19% of the interactions. The blogs had greater popularity than the podcasts due perhaps in part to the viewers' abilities to scroll to find exactly what was needed rather than having to listen to an entire podcast to find pertinent information. This point made an important implication for the current study as it showed that teachers can and did use podcasts and their associated media to locate what they needed to grow their instructional knowledge.

The findings in the McNamara study showed that the usage rates for these podcasts might have been among this specialized group of teachers devoted to Adaptive Physical Education, specifically in terms of interacting with blogs that discussed behavior management, autism, and technology, but it did specifically state that this was one of the limitations in the study as there was not a way to conclusively know with certainty that everyone who interacted with this podcast or blog was an APE teacher or prospective APE teacher. McNamara further stated an inability to measure how long a user looked at the information from the blog or whether the user returned to view the information on other occasions. This lack of evidence made the study less reliable.

However, the interactions with the blog posts and podcasts implied that listeners actively sought out information and strategies they felt would strengthen the work in their classrooms; for instance, the podcasts with the highest levels of interaction discussed topics such as APE Consortium benefits for teachers, the Americans with Disabilities Act, the efficacy of using APE exercise partners for students with autism, classroom management and set up for students with sensory needs, and communication methods and challenges for APE. It was crucial to note, however, that these interactions probably only

took place among a small population of teachers—again with an unknown sample size—who educated this special population of students. The study did not elaborate on who might have accessed these podcasts, but due to themes discussed through these podcasts and the mentioning that they were necessary PD sources because few were offered for this sect of teacher growth, it implied that just a small number of listeners made these interactions. The study speculated that the allowance for teachers to choose their professional development based on their specific classroom needs made the professional development more engaging. Both the findings and the comments of this study showed promise for the use of podcasting as professional development among a secondary education population, though the strength of evidence was lacking due to inadequate knowledge concerning the number of users. The information provided by McNamara indicated that teachers had a tendency to seek out information about specific subject matter through podcasts and that the allowance for personal choice in what was most needed in their personal classrooms provided the potential for information implementation. However, the study also pointed out that while podcasting PD options should be available to teachers as a means of assisting them as they built their teaching repertoire, the researcher did not believe podcasts should fully replace what was deemed as “formal” professional development sessions (McNamara, 2019, p. 43).

In a qualitative study that described the learning experiences of nineteen students (eleven females and eight males) enrolled in a specific Physical Education course, McNamara and Haegele (2020) used reflections and focus group interviews to investigate learning through Open-Access podcasting (free podcasts that did not require payment).

The researchers sought to describe how the learning experiences pertaining to the specific subject matter and the growth of the students' understanding of the concepts of inclusion and integration in the Physical Education classroom were affected by podcast listening (McNamara & Haegele, 2020). Students were asked to listen to a conversational discussion between Adaptive Physical Education experts on the contrasting definitions and applications of "integration" and "inclusion" while using the guidance of an article on the subjects written by one of the researchers (McNamara & Haegele, 2020). Following the listening experience, students were asked to write a reflection on the podcast and be prepared to participate in a focus group discussion (McNamara & Haegele, 2020). Descriptive data from both the after-listening reflections and transcriptions of the discussion from the focus group were used to construct categories and themes (McNamara & Haegele, 2020).

McNamara and Haegele found that the podcasts disseminated knowledge that previously had been unknown to users; this emerged from the three different themes researchers found: efficacy, definitiveness, and challenge determination. The results suggested that the podcast might be a promising learning tool for students (McNamara & Haegele, 2020). In terms of efficacy, study participants stated that the information they learned through the podcast helped them distinguish between inclusion and integration; furthermore, the next theme provided researchers with the understanding that, previously, participants were unaware of the difference between the term "integration" and "inclusion," but the podcast defined and clarified the differences of the two (McNamara & Haegele, 2020). Finally, the third emerging theme from this study explained that after

podcast listening, participants had a greater understanding of the difficulties posed by Adaptive Physical Education and the inclusivity and integration needs of learners (McNamara & Haegele, 2020).

McNamara and Haegele concluded that podcasts have the potential to successfully explain difficult subject matter and would provide higher education teachers to offer a means for their students to have a deeper understanding of specific concepts, but further comparative studies using a greater variety of podcasts were necessary (McNamara & Haegele, 2020) If this medium of information provision resulted in greater learning of previously unknown information for pre-service Adapted Physical Education teachers, a similar conclusion might be reached that in-service teachers also would benefit from the use of podcasting to procure new learning for their classrooms. However, due to the small number of participants in this study and the subject matter on which the study was based, research on a larger scale and with broader educational information was necessary to determine if similar results might be experienced among other educators from varying grade levels and content areas.

Elekaei et al. (2020) also sought to provide insight as to whether the use of podcasting could expand student eagerness for learning as well as generate stronger academic outcomes for Iranian E-learning Foreign Language students. In this study, 180 learners identified as E-Learning Foreign Language students were randomly divided into an experimental and control group that coupled vocabulary podcasts with either still or moving associated vocabulary pictures and then gauged growth via comparison of immediate and delayed post-tests on the learned information (Elekaei et al., 2020). The

original number of invited participants began at 280, but this number was reduced after researchers administered a proficiency test to ensure that the participants selected were on an intermediate level. Those who scored either one standard deviation above or below the mean were not invited to participate further (Elekaei et al., 2020).

The findings indicated that learners who received vocabulary podcasts plus moving associated pictures retained information better because there were statistical differences found between it and the e-Learning format; in this case, the null hypothesis was rejected (Elekaei et al., 2020). Researchers acknowledged that this result supported that of Mayer and Moreno (2002) in their belief that both spoken words and moving pictures help students learn vocabulary more effectively than simply learning the words and their definitions in isolation, which could have indicated that the use of podcasting was simply a result of the benefits of narration added to term introduction. There was also increased retention of information that showed the potential for a deeper level of learning activity that the learners could have had as a result of podcast listening and might indicate that the use of podcasting could have been part of what made this mode of professional learning more effective for educators.

The Elekaei et al. research team provided data that showed an indication that the E-Learning Foreign Language students showed increased efficacy in acquiring and retaining knowledge of vocabulary through the E-learning podcast platform, as the findings had statistical significance; however, no effect size for the study was mentioned, only the statistical significance was included, and the study was in sharp contrast with several others mentioned by the researchers as having no indication of growth for student

learning. Therefore these findings might not have been repeatable and were highly questionable in their validity (Elekaei et al., 2020). One study in particular cited by researchers stated that podcasting was not an effective replacement for the long-established, more conventional learning resources (Elekaei et al., 2020). If this was so, it suggested that the present study on podcasting, reflection, and collegial conversation might not have resulted in positive findings for its use as a form of professional development for secondary educators; thus, further exploration of this method of professional development was warranted through the use of a qualitative study, as it was the best strategy to provide detailed descriptions that informed the research.

Podcasting as PD Beyond Education

Though the use of podcasts for professional development in secondary education appeared to be lacking, research showed that podcasts had been used extensively to deliver content, training, and professional learning in medical professional development and in higher education. One such example was the use of podcasts to replace the more traditional lectures experienced by practitioners in the medical community. Newman et al. (2021) described the means of overcoming difficulties experienced when endeavoring to produce a successful podcast for medical professionals. The team explored whether the use of podcasts was an appropriate substitute for typical lecture-style professional development for medical professionals and added that effective professional learning was best delivered in brief segments that lasted between ten and fifteen minutes by extremely knowledgeable content leaders who specialized in a particular subject area based on their experiences with a specific podcasting program (Newman et al., 2021). These shortened

segments were described as being much briefer than typical professional learning sessions that ranged from 1 to 2 hours (Newman et al., 2021).

Newman et al. described a podcast's effectiveness based on a number of measures, including the number of downloads a podcast had as well as the number of listeners/subscribers a podcast had; the more downloads a podcast series had, they felt, suggested that the downloading individual had a greater breadth of interest with the subject matter of the podcast (Newman et al., 2021). One major discrepancy described by researchers, however, was the difference between the number of downloads for specific content. They explained that while podcasts based on medical information with open access had between 200 and 10,000 downloads, subject-specific podcasts such as those focused on the study of the liver or on the study of viruses, for instance, had far fewer downloads—56 and 11, respectively (Newman et al., 2021). In the present study, this could have been an indication of the need for the podcasting PD for secondary educators to be even more narrowed in scope so as to have provided educators with a means of focusing upon a facet of education or educational issue that was occurring in their classrooms. Also, while this study indicated that the podcast-provided content options might be decreased, other studies indicated that coupling the shortened educational information with the use of teacher personal reflective journaling and collegial conversation might have balanced the depth with which teachers explored and committed to using the instruction provided by the podcast(s).

The medical community continued to use podcast listening in other areas. To explore how podcasting affected learners from nursing and midwifery, O'Connor et al.

(2020) used an integrated review methodology to compare data in several categories. Their research used twenty-six studies in the review, and they determined that using handheld devices to listen to podcasts provided greater access to students for the delivery of educational information (O'Connor et al., 2020). They concluded that the major results, which were the acquisition of information and experience, were pertinent to the students' work; one unexpected outcome, labeled as "Other Learning Activities," identified that the students' use of podcasting listening merged with other learning strategies such as "reading lecture slides, note taking, reading textbooks and discussing digital content in study groups and online forums ... appeared to enhance the learning process" (O'Connor et al., 2020, p.11).

O'Connor et al. finally discussed that while some effects did seem to promote learning, the use of podcasting as a didactic mode of instruction remained open for consideration and warranted further study; these professional learners grew in both knowledge and skill, and they also were strengthened in their confidence levels in their work and ability, though there were some students who reported that this method of learning was not best suited for their needs (O'Connor et al., 2020). O'Connor et al. also concluded that at least seventeen of the studies analyzed were weak in quality, eight were found to be of average quality, and one was deemed high quality (O'Connor et al., 2020).

This study indicated that listeners who are more engaged in their learning might have experienced knowledge acquisition more deeply as they consumed and utilized the information. The report showed that 90.5% of students who participated in the 2013 Abate study indicated that podcasting helped them both remember and apply learned

concepts; the research from Forbes and Hickey (2008) showed promise for podcasting, with 95% of students accessing a podcast to study before a test or to deepen conceptual understanding (O'Connor et al., 2020). 100% of students reported in the Hargett (2018) study that podcasting “sparked learning and/or inspired critical thinking or reflection on a topic,” and 66% suggested and supported further use of podcasting assignments in upcoming coursework (O'Connor et al., 2020, p.5). Students reported engagement with podcasting narratives and said they liked having pragmatic implements for peer discussion with the Lyons (2013) research as well (O'Connor et al., 2020). Studies suggested that podcasting could be proven to be much more interesting than the average professional development session for adult learners, and it might have also provided a greater likelihood of implementation if educational professionals felt more assured of the understanding and application of the information and/or teaching strategies. Strength of evidence was a concern: of the 26 studies, 17 were found to be weak, and only 9 held a strong potential for their assistance in growth. Also, since this study was dependent upon students' self-reporting their experiences, the strength of the evidence was considered weak. The Meek et al. (2012) study had a report that showed there was no appreciable contrast between student learning and student interest as compared with the traditional course programming among the 15 subjects in this study, and Schlairet (2010) reported that no difference of significant value was detected in the research for the 70 study participants as 47% reported accessing podcasts with no report of significant difference; only 50% of the 70 participants rated the podcasts as helpful to their learning.

The O'Connor et al. research team also conceded that podcasting alone might not

have been enough for some learners to make appreciable gains in their practice (O'Connor et al., 2020). This was important to bear in mind for the present study because, while some teachers might have experienced the same enhancement for learning through podcasts that these nursing students reported, some might not have. It was also important to note the small sample size. The exploration and description of only 26 podcasts suggested that this might not have been reliable or repeatable in other PD genres. However, the further application of the personal reflection journal and collegial conversation might have assisted with engaging these teacher-learners in a greater way because it might have appealed to stronger styles of learning and knowledge application.

Blum (2018) examined the relationship between students of nursing and their use of educational podcasting through a pre-and post-test of students' practice in using educational podcasts to increase critical thinking abilities. The study initially began with 59 nursing students identified through convenience sampling, but only 38 returned to take the post-test. While all students were provided the opportunity to learn via traditional means, resources, and instructional strategies, an intervention group was also provided with CT podcasting resources to enhance their instruction. There were 17 nursing students in the control group and 21 students in the intervention group. The method of assignment to these groups was not reported. This comparative/correlational research design explored whether students who received the podcast intervention would 1) show growth in critical thinking abilities compared to those who did not receive the intervention, 2) would show growth in their relational gains in critical thinking skills, and 3) that a relationship would exist between analytical elements and critical thinking

changes (Blum, 2018).

Results showed that for the first hypothesis, growth in critical thinking skills, no significant differences were measured; in the second hypothesis, growth in relational gains was the same, though growth in analytical skills showed significance; thus, growth in analytical skills was greater (Blum, 2018). The lack of significant differences did not mean that there was no difference; it simply meant that they could not be compared. The third hypothesis again showed a lack of significance in learning growth, but a Likert-scale rating of students' appreciation of the podcasts as forms of instruction showed that the students found them useful and valued them to a great extent. Again, the self-reporting of students showed a lack of evidentiary strength, as did the lack of measurement among differences. Blum also noted that the lack of demographic differences and the small sample size increased the limitations of the study and made it less reliable. There was also no mention of the effect size, so this removed more credibility from the study as the results were uninterpretable.

The outcomes of this study showed that although the nursing students found value in employing these learning podcasts and liked the experiences they had, the lack of ability to determine the effect was minute and was uninterpretable due to the low power of the study. There really was not a significant influence on podcasting's enhancement of learning from pre-test to post-test as compared to the control group that did not have the podcasting intervention. Only the area of analytical skill showed a significant deviation, but its size was not reported (Blum, 2018). The study was therefore lacking in support of podcasting for measurable growth, and researchers suggested further exploration with

other specialty groups and larger sample sizes (Blum, 2018).

However, the importance of this study as it related to the present one was in its indication that the learner listeners found value in this sort of learning modality, as shown in the outcomes of a Likert scale. This might have meant that this study was unreliable due to the low power of the study. Based on my experience as an educator and in my work providing meaningful professional development to educators, I speculated that they, like the aforementioned nursing students, also wanted to enjoy their professional development sessions. They needed to know that their voices were heard in terms of what they needed to strengthen their practice and also to know that their time away from the classroom was valued. Learning in a situation and setting where one felt as though the information was applicable to his/her professional work ensured that the information was esteemed in a more measurable and appreciable way that enabled the learned information to permeate the teacher's practice and have a greater effect on student learning outcomes. The reporting of this study was woefully incomplete, however; thus, the findings above could only be taken as speculation.

In another qualitative study, Malecki et al. (2019) applied a grounded theory design to two medical students, eight resident doctors, and seven internists/family doctors. Four major themes emerged: using podcasts most for professional learning to improve proficiency, to stay abreast of new technologies and research, for educational entertainment, and to elevate medical practices for their patients (Malecki et al., 2019). Each of these could and should also have been applied in terms of education. If PD, which used podcasting as a component, was offered as a professional development

option, the results might have shown that teachers were more competent in intentionally choosing instructional strategies that better enabled students to master standards. Also, these could have been used to make teachers aware of new resources procured by the state or district that might have been better suited to the needs of their learners. Finally, these podcasts might have revealed new strategies that aligned with content in new ways and offered greater application and understanding for students.

Patrick et al. (2019) chose to develop a study to describe how a podcast for pediatricians might have elevated discussion among those medical professionals and offered opportunities for obtaining free CMEs (Continuing Medical Education) for users. The study developed 26 podcast episodes ranging from approximately 46 minutes (shortest) to 1 hour and 12 minutes (longest). The average podcast length was given as 61 minutes. Of the 26 podcasts, 16 were devoted to the theme of medical information/knowledge, and the remaining ten centered on faculty growth. Patrick et al. found that the number of listeners increased throughout the time it was studied; from the time when the podcasts were first introduced to the final production in May 2017, there was an increase from 1087 to almost 12,000 downloads of podcast episodes (Patrick et al., 2019). Though there was a decrease after 6 months of production, downloads continued to take place at a constant pace until the conclusion of the study (Patrick et al., 2019). Furthermore, there were over 900 practitioners who registered for the Continuing Medical Education credits, which showed evidence that these individuals elected to use this as a form of professional development for recertification hours (Patrick et al., 2019). Thus not only did researchers conclude that listenership grew, plateaued, and then

remained steady through the duration of the study period, but they also evidenced that users appreciated it for its ability to be stored and recalled when needed through the use of archived episodes (Patrick et al., 2019).

Though this did not directly speak to the usefulness of podcasting as a form of professional development, it explained the popularity of podcasting in this realm and added evidence that might have advocated for podcasting as a professional development option for teachers. Thus, any podcast from any genre might have been used for the purposes of informing teachers of new teaching strategies and methods and might have been be a far more engaging and entertaining mode of PD than typical lecture-style models.

Yet another study exploring podcast learning was performed by Strickland et al. (2021) to explore podcasts as a method to encourage community participation and instructional practice development for ecological and environmental issues. This study specifically described the varying contents offered by scientific podcasts; it determined that podcasts could and should be viewed as an evolving learning innovation that provided expansive communication opportunities for and among learners (Strickland et al., 2021). This study further concluded that environmental scientists and environmental conservationists should be thoughtful in their contemplation of using podcasts as a delivery method for disseminating information related to their curricula (Strickland et al., 2021).

While this study, like the previously mentioned one, did not speak directly to the benefits of podcasting, it explained that because podcasting was a continually

transforming medium, it should not have been discounted in the potential scope of its usefulness and should have at least been considered for further exploration. While it was true that every medium was one that would see moments of fluctuation and change—be they in the form of books, movies, magazines, etc.—several of the positive aspects of podcasts were in their accessibility and convenience and in the provision of related resources that might have been accessed for deeper interaction. Through podcasts, educators were provided options for on-demand listening, archiving, linked source materials used in the shows, and options for fellow listener interactions and input that might have provided a more intentional exploration of the subject matter. Aspects of each of these might be true for other media, but podcasting offered another option for teachers that was as of yet unexplored in the secondary education realm. It was important to note also that because a gap in knowledge existed for teacher experiences with podcast listening as a form of professional development, it stood to reason that the use of the aforementioned elements included with podcasts was also unknown. This indicated another area of future inquiry.

Conclusion: Podcasting for Professional Development

Based on this research, the podcast component of this professional development experience necessitated several aspects in its design. First, the podcast listening component must have offered each teacher a preference to experience the listening via their personal method of choice. This could have meant listening from their classroom desks, or it might have meant listening while driving, performing exercises, or relaxing; this not only provided the participating teachers with a choice in how they listened to the

podcast but also in how the content was reviewed, repeated, and replayed. Second, the podcast should have been free from advertisements or have few advertisement interruptions. Third, the podcast should have employed the use of the narrative form and engaged listeners in a sort of storytelling; the whole of the podcast need not have been entirely focused on telling a story, but it should have contained portions where the speaker connected with listeners through an engagement with how the instruction had been used with real students in the speaker's real classrooms. Finally, sources indicated that listeners learned more effectively when information was delivered in shorter segments and by speakers who were deemed experts in their field. Bearing these suggestions in mind and ensuring their use allowed for the podcast listening portion of this research to be more compelling, given their strength of evidence.

Teacher Reflection in Professional Learning

While educational podcasts might have served as the delivery method for ongoing professional learning of information, for stronger teacher interaction and the likelihood of implementation into individual teaching practice, other methods needed to be employed to generate greater synthesis and application of learned information. Harkening back to the requirements for more effectively learning information, the cognitive learning theory stated that to learn most successfully, learners must have been involved in the act of “doing” while they received information and must have been provided chances for interaction with other learners in meaningful ways as they applied the learned information. Kretchmar explained that, as part of the events of instruction, the action of performing tasks as they were related to the learning provided learners with the

opportunity to affirm their understanding of the information presented. Additionally and again, as a part of the events of instruction, learners should have had opportunities to employ and practice the newly learned information in new instances and under varied circumstances in order to establish transferability (Kretchmar, 2018). These elements guided the inclusion of the two other components within the research design: jot journal reflection and collegial conversation. Several studies concerning the use of both reflective practice and collegial conversation following professional learning showed promise in deepening professional learning for educators.

Woolway et al. (2019) posited that teacher reflection served to provide two important aspects for educator professional development. The first gave teachers a chance to connect theoretical ideas to real classroom practices to better understand how these occur in reality rather than simply being suppositional. The second provision of reflection as an aspect of professional development worked to strengthen teacher autonomy in the direction their professional learning led them concerning their own self-appraisal and self-assessments in terms of their teaching practices and their efficacy. This research team also reported that reflective practices enabled teachers to grow their teaching capacity and abilities to become more effective educators (Woolway et al., 2019). Using action research, the Woolway et al. research team collected 2 years' worth of data from four Natural Science teachers teaching grade eight students in Johannesburg, South Africa. The data were collected over five cycles and consisted of audio recorded and transcribed periods for reflection and planning among teachers during professional learning community conversation and open-ended surveys that necessitated individual

teacher reflexivity with regard to their instructional practices and lessons. After analyzing the reflective exchanges of the four teachers while in their professional learning communities, the research team concluded that these reflective conversations brought about more participatory activity among teachers during reflection sessions and that the teachers' assurances grew as they become more accustomed to this form of professional development. Though the lack of results from the individual teacher questionnaires weakened the findings of this study, it was nonetheless worthwhile to learn that conversations among colleagues that centered on a reflection of individual instructional practices helped to better teachers' crafts and aided in building individual teacher certainty as it pertained to their work as educators (Woolway et al., 2019).

In a qualitative phenomenological study of teacher reflection, Clyde (2022) sought to determine the experiences that exemplary teachers (whom he referred to as "high-performing teachers" or "model teachers") "engage[d]" in reflective practices for professional development and how educational leaders in schools and district could bolster professional development opportunities through the implementation of teacher reflection (Clyde, 2022, p. 5). Each of the seven K-12 participants took part in three semi structured interviews that required them to discuss their biography as a teacher, their reflective practices as teachers, and how they used reflection as a means of professional development. Data from the interviews were analyzed through the use of "piori and open coding" (Clyde, 2022, p. 40). The analysis of the data through prior and open coding determined that there were six themes that emerged from teacher interviews regarding reflection that held important implications for the study; one of these included reflection

as an aspect of professional learning. Clyde determined that exemplary teachers habitually participated in their own self-directed, personal reflections regarding their teaching practices, and it led them to autonomously seek out professional development experiences on their own to inform and improve their teaching practice (Clyde, 2022). This indicated that teachers of the highest caliber have used reflection as a tool for professional growth and might have assisted other teachers in elevating their instructional practices if it were to have been implemented with a professional development experience.

Denha et al. (2022) explained that the use of reflective practice added to educators' understanding of their personal teaching identities, preferred methodologies, and autonomy necessities. Their research sought to determine if an exemplar for education improvements could be created using teacher reflection as a basis for evaluation. They found that reflection provided positive benefits for teacher growth in ways that developed their careers and personal teaching practices (Denha et al., 2022). This team analyzed sources that supported both scientific research and methodologies as well as themes and subjects presented in content and curriculum; as a result of these multi-layered analyses, they determined the predominant method to be that of a tiered system of modeling for the use of personal teacher reflection (Denha et al., 2022). The team used a number of research tools to aid in the saturation of its search: educational content, instructional strategies, methods of presentation, methods of reflection, teaching resources, and teacher memoirs (Denha et al., 2022). The support that teacher reflection provided for an educator's career included an increase in adeptness in reflexivity as well

as greater acumen for lesson and unit planning and improved critical thinking to solve a multitude of classroom problems and issues (Denha et al., 2022). The research team found that, personally, the use of professional reflections assisted teachers in strengthening their inspiration to produce stronger work as well as imagination for engaging students (Denha et al., 2022).

This study was important as it provided useful speculation to consider; it spoke to the growth teachers experienced through their use of reflective journals and how these positively influenced their professional work. While the study focused solely on the reflexivity of journaling, it stood to reason that teachers and their craft could have also reaped the benefits of reflective journaling following podcast listening. It would have required the consideration of ways the presented information from the podcast(s) might have been included in the classroom or incorporated into current instructional strategies. However, there were obvious limitations to this source. One limitation was that the strength of the evidence was not presented, and the claims they made were unsubstantiated, rendering this study extremely limited in the scope of its use. There were no results for discussion, but the research team created a model using a compilation of the organized work of practitioners' reflections concerning the specific pedagogies and developmental tiers as they were applied (Denha et al., 2022). This model depended on educators' understanding of the content they taught and the creation of a tool that could be used to self-assess personally and professionally; other portions of the model included the need for a system of reflection that could be used across a diverse population and the development of teaching/working space that honored intentional reflection as a means of

growth and improvement (Denha et al., 2022).

In a similar study of the application of teacher reflection, Orakcı (2021) investigated the adjustability of teacher thinking coupled with independent reflection. The researcher first cited John Dewey in explaining how one's ability to practice reflection exhibited a higher level of thinking and resulted in an educator's capacity to effectively evaluate their teaching craft and resulting outcomes (Orakcı, 2021). Orakcı further cited Dewey in his explanation that a teacher's capacity for self-judgment using reflection also provided opportunities for the teacher to practice neutrality, reliability, and impartiality (Orakcı, 2021).

In a comparative study of 483 preservice teachers from Turkey, the study found that when used to reflect upon the action previously undertaken, the levels of practitioner autonomy and adaptability of cognition positively correlated, as did the relationship between reflexivity and personal choice (Orakcı, 2021). This study also lent promise as it, too, reported elevated teacher cognition about their teaching practices; it also strongly related teachers' positive responses to these efforts due to their opportunities for personal choice. As podcast listening would have also offered personal choices for where/when teachers determined their professional development experience should take place and the activities they might have engaged in while listening, it was speculated that the coupling of podcast listening and journaling might have been more highly engaging for teachers based on this report.

In a related study by the same researcher, Orakcı (2021) further explained that using reflection following action was necessary if one sought to make changes in his/her

current practice because it forced the use of exemplars from actual circumstances to shift the mindset by altering the lens with which the practitioner viewed his/her work. Using criterion sampling, Orakcı studied 27 teachers from three separate schools across four grade levels in live interviews and through an analysis of reflective journals (Orakcı, 2021). There were a number of outcomes; 13 of the 27 teachers viewed their reflexivity as transferrable to their students and practice, seven teachers viewed reflection as an opportunity to learn from mistakes, four teachers coined reflection as criticism to inform and direct empathy, and three teachers had never heard of the concept of reflective journaling in the past (Orakcı, 2021).

When Orakcı met with teachers after they had performed their reflection, it was found that 70% of them had altered their lesson plans once they had reflected on their students' lack of knowledge about the content, and 100% of participants developed reflective skills as they related to the learning and teaching processes (Orakcı, 2021). Thus, this second study concluded that the use of reflection in teaching suggested that effective professional learning occurred by providing opportunities for analytical thinking about one's own work and outcomes (Orakcı, 2021). This was vital to understand when developing a study that sought to strengthen the outcomes of podcast listening as a form of professional development as a means for providing teachers with new instructional strategies and methodologies. It was important to note, though, that because this was not actually a comparative study, the claim that there was a causal relationship is a weak argument.

In a descriptive study that surveyed 202 secondary teachers in Antakya of the

Hatay province, Ayçicek et al. (2019) similarly concluded that a teacher's determination and choice to include personal reflection to appraise and gauge his/her efficacy with students might better enable them to adopt new instructional techniques to support greater student learning and outcomes. Yet again, the role of the teacher practitioner's choice to use personal reflection suggested that the personal choice in podcast listening followed by reflection would have made this type of professional development experience more appealing for participants, would have rendered greater interest in the content presented, and would have produced a higher likelihood of classroom implementation through instructional practice. However, there were limits to the scope of this study and its claims due to its weaknesses in reporting.

Conclusion: Teacher Reflection in Professional Learning

Given the strength of the research and my application of the Events of Instruction model, the design component of this research included a jot journal reflection produced by the participant made during or immediately following the podcast listening. The reasons for this were supported by the findings from the preceding studies. First, opportunities for reflection offered teachers a new lens through which they might have viewed their work. They did not have to rely upon theoretical hypothesizing but could have instead considered options for embedding the theories into their own teaching practices. The act of reflection also reinforced teacher autonomy in what learned information they used in their instruction and in how they chose to perform that implementation. Teachers' knowledge of their own existing practices was emphasized, as were their inspirations for new practices and activities and their own teaching self-

confidence. The act of reflection provided a chance to shift a teacher's personal mindset as it provided an alternate perspective from which to view the work. Finally, as it was already recognized as an act that high-performing teachers engage in, it could have been considered an asset to the professional development each participant would have experienced through this research model.

While the preceding information supported an argument for efficacy, so too did it support the argument that the addition of the jot journal component would have increased the likelihood of acceptance for this type of professional learning among educators. Through the application of the events of instruction, jot journaling provided the opportunity to apply gained knowledge with immediacy through personal writing and reflection, as well as the chance to use the learned knowledge as a practice within their own classrooms. Additionally, because the teacher participants used their jot journals as part of their collegial conversations, they were able to receive (and give) feedback and constructive criticism concerning the application of the information, which was another aspect of Gagné's events of instruction (Kretchmar, 2018). These opportunities for self and peer reflection through the use of the jot journal increased the likelihood of teacher acceptance of this professional development experience.

The Role of Collegial Conversation in Professional Development

While independent reflection was useful for individual teachers and their personal teaching practice and craft, the opportunity to collaborate and build a teaching repertoire with colleagues proved its effectiveness in teachers' ongoing professional learning. This was the final piece for this professional development study; while podcast listening

offered choice in listening and learning experiences, and journal reflection provided educators with a means to determine how the learned information applied to their learners and in their classrooms, the opportunity for peer collaboration through collegial conversation further allowed teachers to come full circle in their professional learning by providing a means for planning and applying with support from peers. This aspect of the professional development model design was again reinforced by the cognitive learning theory because it gave the study participants a way in which to work with the content through interaction with others through a meaningful application. It was also further supported by Gagné's events of instruction as it again offered opportunities to receive and provide valuable comments to and from colleagues concerning the application of the learned information and allowed for greater transferability. A discussion with collegial peers provided insight into how the information presented in the podcast had been applied in a variety of settings; the final event of instruction concerning how learned information was retained and reapplied supported the differentiated application of the learned information so that the participating teachers could reconsider and revise based on the diverse instructional methods that were shared (Kretchmar, 2018).

One argument for the use of collegial collaboration was the use of mentor coaching to support novice teachers. Kurtts and Levin (2000) posited that the practice of coaching beginning teachers and scaffolding encouragement and advice from fellow educators offered growth in instructional efficacy and successful classroom behavior consistencies. These researchers used the term "peer coaching" to define the work of educational colleagues sharing methods for teaching practice development and

advancement through the process of observation and constructive criticism (Kurtts & Levin, 2000, p. 298). While peer coaching was used to describe the conversations between teachers new to the profession and those more seasoned in their knowledge, skill, and application, “collegial support” was used to describe growth partnerships between similarly situated peers (Kurtts & Levin, 2000, p. 299).

In this quantitative study, 24 pre-service teachers participated in a four-phase procedure that provided opportunities to learn more extensively about “peer coaching” and “collegial support” to strengthen their teaching practice (Kurtts & Levin, 2000, p. 301-302). Based on their analysis of an “open-ended questionnaire” administered to participants, more than three-fourths (77%) shared an affinity for their involvement in this kind of collegial interaction (Kurtts & Levin, 2000, p. 306). The findings of the study indicated a preference for the experience and expressed a positive foundation for the use of conversation among colleagues as it bolstered professional development (Kurt & Levin, 2000). This did not mean that there was a change in teaching strategy, however, and that called into question the validity and reliability of the study. It was also slightly dated, but the study did provide some framework for later work toward mentorship and professional learning communities. The findings from this study supported the professional development practice being studied as it resulted in greater inclination by teachers to participate in this type of experience. Again, from my experience as an educator and in my work with teachers as a coordinator of professional development, I have been told that when teachers seemed more eager to take part in professional learning, and they were more likely to engage more strongly with the content presented

and use learned practices in their instruction.

Though great strides in lesson and unit planning, as well as an instructional strategy and assessment evaluation, could have been made through in-person collegial collaboration, some sources pointed out that conversations among colleagues that were intended to support improvements in teaching practices could have also taken place through virtual means and even asynchronously. Using mixed methods data through the study of a social media group dedicated to teachers, Nelimarkka et al. (2021) examined individual actions and group interactions as they related to on-task attention and persistent, consistent use of Information and Communications Technology in education. The group, which eventually grew to 19,298 members, was created on Facebook for the purpose of increasing positive uses of Information and Communications Technology within educational settings. Researchers deciphered data from the posts, comments, “likes,” and activities over a 7-year span of time and then determined varieties of themes by which all participant activities could be organized (Nelimarkka et al., 2021). The research team gathered all interactions that took place in this social media group from its founding in 2010 to the close of the study in 2017; this included each social media post by individual members, all comments made by users, and all types of reactions that members could tag to a post or comment (Nelimarkka et al., 2021). The data included almost 100,000 actions: 95,061 overall responses, including all posts and comments. Adding the reactive response that Facebook used called a “like,” that number increased to 108,538 (Nelimarkka et al., 2021).

Through the Nelimarkka et al. team’s methods, they learned a great deal about

collegial interaction. They posited that peer learning among colleagues was viewed by educators as genuine due to its localized nature and considered this as having greater authenticity and more personalization (Nelmarkka et al., 2021). They coupled these aspects with others that further supported school achievements, such as improved collegial trust and greater cohesiveness among faculties. They further expounded upon the use of reflection as having an influence on pedagogical engagement through “self-directed learning” (Nelmarkka et al., 2021, p. 2).

Each of these—a more genuine experience with a personalized approach and assured faith in their fellow educators—supported the use of collegial conversation following podcast listening and personal reflection because it positively enhanced teacher professional growth. However, the consistency of the collegial interactions may be questionable. While there was an uptick in user activity from 2011-2013, with users interacting more than ten times throughout the years, respectively climbing from 5.1 in 2010 to 19.4 in 2011 to 26.5 in 2012 and then falling a bit to 24.7 in 2013, there was a sharp downturn that continued from 2014-2017. This indicated that perhaps users’ excitement for this kind of collegial conversation had waned after reaching its peak (Nelmarkka et al., 2021). Another questionable issue raised was that of active versus passive engagement; researchers noted that the activity of this group followed much of what was typically witnessed through social media organizations, which was to say it followed what the authors proposed as the 1-9-90 rule: one percent of the users created a post, nine percent of the group elected to interact with the post, and ninety percent of the group’s members only saw it (they did not interact through comment or reaction)

(Nelimarkka et al., 2021).

With respect to the thematic analysis of the group's interactions, there was support offered for the study at hand; five separate themes emerged that showed users seeking the knowledge of others to increase their own practices and abilities: tools, apps, and infrastructures (38.3%), professional development (24.6%), teaching and learning practice (15.1%), social functions (11.7%), and society and technology (10.3%) (Nelimarkka et al., 2021). Some of these indicated a search for growth and improvement, but some were not related to increasing skills in the teaching practice. Therefore, this study bore scrutiny on whether or not social media groups were viable venues for collegial conversations, though it supported the idea that teachers needed collaboration to move their practice forward and that they actively sought ways to grow from fellow educators.

While some teachers sought out new means of professional growth in their own time, others continued to participate through school and district professional development plans. However, their participation may or may not have indicated a desire for such new learning. In a quantitative study using a four-part questionnaire, Kostoulas et al. (2019) investigated the willingness toward professional growth through independent research for 256 Austrian teachers across a wide range of teaching experiences; there was no mention of how these teachers were selected for their participation in this study, however, and this lack of information forced a questioning of the study's validity. Regardless, the Kostoulas et al. study determined that when educators exhibited more open-mindedness toward professional development and a stronger positive outlook for research, a growth mindset

was more likely to occur. Participants were asked to respond to six questions that aided researchers in determining how teachers felt toward professional development. The first two questions were aligned more with that of a fixed mindset and resulted in more than eighty-seven percent of the participants strongly disagreeing or disagreeing with the items (Kostoulas et al., 2019). The final question in the set asked participants to determine if they felt they could “improve [their] teaching by learning from colleagues,” and the responses toward agreement and strong agreement were tremendous (Kostoulas et al., 2019, p. 314)). While five percent strongly disagreed and ten percent disagreed with the statement, thirty-five percent agreed, and fifty percent strongly agreed with the statement (Kostoulas et al., 2019).

While this study may not have directly related to the research at hand because it concerned how teachers viewed professional development as it related to performing independent research, it suggested that giving teachers a means of performing personal research on topics they were compelled to learn more about bolstered the receptiveness to professional growth; the relation here was that through opportunities for discussion with peer educators, teachers might have been able to delve into ways they best saw to apply the learning. This could have, in turn, allowed for a stronger affinity for professional development with a greater chance of in-class application. However, as with other studies, there might have been some drawbacks related to this particular work; the research team conceded that their sampling methods might have created a situation where participants provided more positive inclinations for professional development than might truly be felt by a majority of educators. Still, this study offered some understanding of

how a cross-section of teachers viewed professional development (Kostoulas et al., 2019).

In a qualitative study intended to investigate teacher ideations of independent and group learning opportunities, Solheim et al. (2018) used focus group interviews and learning logs to analyze responses from 76 Norwegian teachers who were invited to participate. Teachers from grades 8-10 (which would be those working with students from ages 13-16) had been engaged for 5 years in an initiative geared toward providing professional development that was intended to make positive changes in methods of classroom management and strengthening student reading and mathematics skills. Of these 76 educators, 61 were females, and 15 were males. All participants were between the ages of 25 to 65 years old.

The findings of this study indicated that providing independent and group learning options aided in supporting teacher professional development (Solheim et al., 2018). The outcomes here supported both the uses of personal journal reflection after podcast listening as well as follow-up dialogue among teacher-learners as it explained that both showed preferences from teachers at higher levels than others for teacher professional development. In the research team's analysis of the participants' learning logs, thirty-one of the seventy-six teachers—or forty-one percent—wrote that collaborative learning that allowed for idea sharing was a great way for them to increase their knowledge and skill in practice (Solheim et al., 2018). Also, in these learning logs, fifty-one teachers—sixty-seven percent—shared that they considered reflection upon their own practice as a type of resource they could use for professional development

(Solheim et al., 2018). These were indicative of the strength that personal reflection journals and collegial conversation stood to have after podcast listening to elevate teachers' professional development experiences.

The methodology used for this study supported the parts of the selected case study methods proposed in this research: the use of reflective journals following podcast listening and collegial conversation between practitioners based on their listening reflection notes. There were some distinct differences, but commonalities were noted. One difference was in the fact that rather than "learning logs," teacher participants used reflective journaling. The journals simply offered greater opportunity for detailed exploration by researchers, and learning logs showed when and how the learning was logged in upon completion. Also, while this study used a focus group interview, the proposed study also used interview but did so with individual teachers following observation of collegial conversation in a group setting. While there were similarities in style, there were marked differences that experienced.

Okeke and van der Westhuizen (2020) delved more deeply into the ways in which collegial conversation provided professional development for educators. They first defined "professional conversations" as premeditated discussions that had been thoughtfully designed to take place among teachers concentrating upon instructional and behavioral activities in the classroom (Okeke & van der Westhuizen, 2020, p. 1). Within the context of their research, they explained that discourse among professionals in the educational field provided the chance to compose a deeper understanding of all instructional and classroom occurrences and allowed for a fluid sharing of knowledge and

insight from varied perspectives (Okeke & van der Westhuizen, 2020). In seeking to answer the research question concerning the ways in which educators grew from a collegial discussion, researchers designed a study that videotaped the conversation of six teachers from the primary level, which was then transcribed and analyzed; their outcomes indicated that the use of collegial dialogue was useful for educator problem solving and provided a basis for teachers to work together to overcome a variety of teaching challenges (Okeke & van der Westhuizen, 2020).

The outcomes from this study—though it was very small in scope—suggested support for the use of collegial conversations because all of the teachers participated in the shared discussion in some way. One teacher advised colleagues on matters of discipline; one teacher shared struggles with discipline policies, and all teachers who served as participants in this study confessed to issues with discipline among their learners and in their schools. The teachers were also responsive during the conversations and were empathetic to the conversational needs of their colleagues. Finally, the participating teachers in this study also expressed positive enjoyment in the conversation, as indicated by head nodding in affirmation, laughter and commiseration, and enthusiasm for the ideas and information shared by their colleagues (Okeke & van der Westhuizen, 2020). Each of these supported the use of collegial conversation to improve professional learning and showed that the provision for discussion among colleagues strengthened the independent podcast listening and reflection previously done by teachers and elevated it to the realms of intentional implementation and application. However, the extraordinarily small sample size made this a questionable study in terms of how likely it would be to

repeat among larger or varied populations.

Lillge (2020) further explored the use of dialogue among peer educators to improve teaching practices for the benefit of their craft and student outcomes and focused on discovering how discussions and conversations could be used for professional development in the area of literacy and the overall teaching practice. Lillge found that as the five participants worked together in conversation around the teachers they supported, each learned more about the ways in which literacy can be strengthened through Professional Learning Communities (Lillge, 2020). This was realized as participants gained the support of their colleagues as experiences and outcomes were shared and discussed, and teachers found ways to address challenging situations with educators they coached through the insights offered by their peers in collegial conversation (Lillge, 2020).

The study's findings showed that there were five ways identified that conversational power could be intentionally shared: esteeming the act of listening, asking reflective questions rather than providing solutions, offering alternate perspectives to view the situation through a new lens, requesting feedback, and giving candid response concerning ambiguities (Lillge, 2020). Like the former study by Okeke and van der Westhuizen, the findings from this study indicated that positive outcomes could result when teachers were provided opportunities for discussion and troubleshooting. However, also like Okeke and van der Westhuizen, the study centered around an extraordinarily small group of participants, which inferred that its likelihood of being repeated might be low if repeated with a larger and more diverse group of participants. Nevertheless, though

the study itself focused on overcoming teaching challenges, the results indicated that regardless of the discussion topic, the support of teaching peers through reassuring collegial conversations generated individual confidence to take new learning and use it intentionally in the classroom for the benefit of all learners, which offered support for the use of conversation as part of the present study.

In a qualitative case study in Finland, Bendtsen et al. (2022) studied how professional development experiences could have been developed and implemented in order to have ongoing growth. Their findings suggested that collegial interactions through collaborative efforts were important factors for ensuring that professional development experiences continued into the future and remained viable. Participants enrolled in a 6-month-long course focusing on the use of Action-Research, and 11 female teachers were later asked in semi structured interviews to share their experiences concerning how they (the teachers) believed that the learning activities they encountered altered their instructional practices (if they did) and what aspects of the course affected that change if, in fact, it took place (Bendtsen et al., 2022). While the teachers who participated in this study were from a central location, they came from a variety of schools within the locality and worked with learners whose ages ranged from seven to 15 years in age. Additionally, the 11 female participants were diverse in terms of their own ages and experience in the teaching profession (Bendtsen et al., 2022).

Upon their analysis of the transcribed interviews through the use of inductive reasoning, this research team worked to delineate the information provided into two separate sets as the information pertained to the two research questions. Eight different

categories emerged, which researchers then thematically grouped as they pertained to the independent work of teachers, the work of teachers at a single school level, and the work of teachers as a collective in the community. As previously stated, interview analyses from teachers showed an emphasis on their need for collaboration as they worked through the requirements of the course. Participating teachers shared information pertaining to the ability to brainstorm information, support project and assignment necessities, and reinforce collegial work throughout their time in the course. More importantly, in analyzing the participating teachers' interviews, the research team described and stressed the recurrence of collaboration as it served to create a greater influence throughout whole schools and within the greater school community (Bendtsen et al., 2022).

Though this study suggested that collaboration between and among colleagues was an important element in ensuring that professional development was ongoing and effective, it did have limitations. The study was very small and worked with a select group of individual teachers in one specific location. The research team indicated that the results could not be found to be wholly influential unless future research was done; it would have to involve a much larger group of participants from a variety of backgrounds in order to truly determine if professional development could have been elevated through the inclusion of collaborative practices (Bendtsen et al., 2022). Although the study was considered weak due to its small size, it nonetheless provided an element of consideration for the inclusion of collegial interaction within professional development experiences.

While the preceding study was limited by the small number of participants it

involved, Nordgren et al. (2021) developed a study that investigated teacher collaborations with colleagues on a much grander scale. Through the use of a survey, the research team examined the impressions educators had concerning how collegial collaborations influenced their lesson plans and daily preparedness measures. The survey was sent to a “representative sample” of 4,988 and completed by 2,285 (Nordgren et al., 2021, p. 4). Of those who completed the survey, 30% were male educators, and 70% were female educators, and the average age was approximately 48 years. Within the survey that participants completed, there were four categories. These consisted of “planning, evaluation, and development of lessons; scheduled time for collaborative work; systemic and formative developmental work; and perceived support from principals and lead teachers in teaching development” (Nordgren et al., 2021, p. 4).

The results that related to collegial collaboration as it pertained to lesson planning and preparedness measures showed that it was not generally implemented with regularity. However, the survey results showed teacher affinity for it. While 29% reported that they preferred to perform lesson planning and preparedness measures independently, another 22% expressed they preferred to collaborate with a coworker who taught the same students. Moreover, 37% said they elected to collaborate collegially with those from their particular content area. Finally, 12% expressed the preference of selecting from each of the former options as it suited their needs (Nordgren et al., 2021).

There were other revelations made upon further analysis of the data from this research team’s survey. The satisfaction rates that teachers expressed for the amount of time they had allotted for lesson planning and preparedness measures were higher when

there was greater time devoted to collaboration with their colleagues. For example, 34% of teachers surveyed expressed that they were satisfied with the smaller allotment of time for planning and preparation with colleagues. But educators who were allotted greater time for collegial collaboration expressed satisfaction rates of 43% (for an average amount of time with colleagues) and 57% (for an increased allotment of time with colleagues). There was also a connection revealed for the surveyed teachers' use of "teaching models" (Nordgren et al., 2021, p. 9). Of the teachers surveyed, 16% of teachers who reported that they had more time allotted for collaboration with colleagues said they used "teaching models;" those who only had an average amount of time for collegial collaboration only used these models at 6.5%, and 5% of teachers who claimed to have an even greater reduction of time with colleagues said they used the models (Nordgren et al., 2021, p. 9).

The Nordgren research team's research suggested that when opportunities were provided for collaborative work among colleagues, teachers' conceptualizations about their practices and the preparations thereof were influenced. The research also implied that teachers' perceptions concerning administrative leadership and school/classroom requirements were positively heightened when more opportunities for collaboration with colleagues were offered. However, this research was limited in that the Nordgren research team could not establish which parts of the research directly caused the outcomes they found. They deemed it necessary to do further research. Another aspect of this research that was questioned and weakened the findings were the reports that though the surveyed teachers preferred collaborative collegial opportunities, they still reported

that there was not enough time allotted to them for lesson planning or taking preparedness measures (Nordgren et al., 2021).

Lerang et al. (2021) studied the correlation between opportunities for collaboration with colleagues and the ways in which educators viewed their work conditions as they faced varying levels of instructional support. This team cited established implications for the benefits of collegial collaborative practices; these included the provision for teacher discussions pertaining to assessment practices, resources, and instructional methods, as well as heightened learning for students and the development of a more positive school culture. The research team hypothesized they would see a distinction between teachers who received “high- ... and low quality instructional support” in the ways they viewed their working conditions as they related to collaborative practices with fellow educators (Lerang et al., 2021, p. 1304). Using 81 teachers from Norway who taught in grades 5-10, researchers had certified observers rate the instructional quality of teachers and then asked the observed teachers to perform self-reflection concerning their personal strategies used for instruction. Most of the participating teachers were female (70%), and they ranged in experience from novice (1 year in the classroom) to veteran (with up to 35 years in the classroom).

To determine how teachers felt about their working conditions as these related to the opportunities they had to collaborate, the Lerang research team asked teachers to rate their “job satisfaction” using a scale; “collegial collaboration” was specifically gauged using five parts that asked teachers to share their thoughts on their opportunities to collaborate with fellow teachers (Lerang et al., 2021, p. 1306). The research team used

the “mean scores” to analyze the data (Lerang et al., 2021, p. 1306). The research tool was created by the researchers for this study, which brought its validity into question as it might not have been applicable to other studies. This was one point that weakened the findings of this study.

Another aspect of the study that was questioned was the rejection of the second hypothesis concerning teacher collaboration and its correlation to teacher satisfaction. Findings for this data were deemed “nonsignificant” (Lerang et al., 2021, p. 1311). The research team suggested that this could have been affected because the participant pool was not from a larger sample and was so small that differences in statistics were unable to be found (Lerang et al., 2021). Due to these statistically insignificant findings and to the use of a researcher-developed scale, this study was not considered strong, and the effects needed further study and analysis.

Zulu and Bertram (2019) investigated the outcomes of teachers who collaborated within a professional learning setting to determine if it led to more extensive growth of teacher capacity for content. Using a qualitative case study, Zulu and Bertram triangulated interviews, observations, and participant questionnaires to ascertain how collaborative measures improved content knowledge and application to teaching practice. A group of 25 mathematics teachers from a district in KwaZulu-Natal who were part of a professional learning course participated in the study. Four of the teachers were selected by purposeful sampling for interviews, three observations that were not structured by the researchers were observed and annotated, and 19 participants responded to the questionnaire given to all 25 study participants (Zulu & Bertram, 2019).

The interview transcripts, observation notes, and unrestricted questions on the questionnaire were coded and analyzed to determine recurring themes. The restricted questions from the questionnaire were analyzed to determine statistical significance. The thematic findings implied that during their learning sessions, the math teacher participants took part in collaborations that involved brainstorming, instructional methodology, math-related subject matter, and teaching tools. Further analysis suggested that teachers who were part of the training sought out collaborative interactions beyond their sessions. These teachers explained that they collaborated with one another about teaching tools and instructional methods, lesson planning, assessment creation, and collegial lesson examination (Zulu & Bertram, 2019).

Upon analysis of the interview transcripts, the findings implied that the study participants were motivated of their own volition to seek out collaborations with fellow professional learners who were course participants. The collaborations were found to be at various levels ranging from once per week (47%), once per month (20%), sporadically (25%), and not at all (10%). These findings indicated that most participants collaborated while in sessions and outside of training times. However, there was evidence that implied that some teacher content knowledge grew more from the leadership of the session facilitator, not through collaborative opportunities with professional learning peers (Zulu & Bertram, 2019).

While the findings suggested some ways that collaboration in these professional learning sessions led to the instructional growth of teachers, there were also weaknesses associated with this study. First, the lack of balance between participant interviews,

observations, and questionnaires did not provide enough data for analysis. While observations of all 25 participants gave a more distinct view of how all participants interacted, the lack of more interview and questionnaire data left the analysis incomplete. Though 25 was an adequate size for a case study, the use of four when at least six times that were available for deeper discussion showed that a limited view of the experience was analyzed from the data and weakened the overall study's findings (Zulu & Bertram, 2019).

Conclusion: The Role of Collegial Conversation in Professional Development

In consideration of the preceding research, the design component of this study included collegial conversation following podcast listening and jot journal reflection. The reasons were supported by the studies previously analyzed and discussed. Collegial conversations offered effective ways to encourage teachers and promote instructional and managerial growth. Collegial conversations and collaborative opportunities not only improved teaching strategies but also influence teachers to seek out more professional growth options.

While collaborative practices increased the sharing of instructional methodologies, they also provided greater instances of resource sharing, activity development, and assessment creation. Collegial conversations aided in deeper teacher reflection and in the construction of new perspectives. Essentially, collaborations provided teachers with a different lens through which to view their practice. Teacher collaborations also bolstered teacher satisfaction with their work and in the performance of job requirements.

Summary

The implications from these articles and studies indicated that there might have been some evidence that some genres of podcasts, used in some ways, could have an effect on the professional development experiences of secondary educators. However, the low levels of repeatability due to small samples and inattention to effect size called these studies into question. The studies reviewed found some evidence suggesting that podcasting as a form of professional development for teachers might have been popular, as it had been appreciated and valued by participants from several of the provided studies. There was also some evidence to indicate that the use of reflective writing and collegial conversation would be necessary for this form of professional development to have generated the kind of learning outcomes for students that were desired. The weaker evidence allowed for further speculation that due to small sample sizes, the results might not have been repeatable. As previously stated, some evidence existed for the use of individual teacher reflection and for the implementation of collegial conversation groups, but even here, effect sizes were insubstantial, so reflections and collegial conversations should not have been used alone.

As many of the above studies made use of qualitative designs to explore and describe the experiences of participants, this design was also employed in my research. Using the unified theory of acceptance and use of technology as a framework for the research questions provided a means to explore how participants intended to learn about and employ a new innovation; therefore, it was the best foundation for this study. Gagné et al.'s cognitive learning theory justified the development of the study's treatment by

focusing on the way information was delivered, how instruction was guided, how actions might have been executed, and methods by which learners might have discussed information. I used teacher reflections on their podcast listening experiences along with individual interviews and observations of group interactions during collegial conversations to find themes and triangulate the data to find those themes that overlap or repeat. This showed that teachers had found usefulness and value in these PD experiences when intentionally combined as a single PD unit. Using the three experiences in conjunction with one another might have increased teacher interest as well as their likelihood of implementing newly learned instructional strategies into their teaching craft.

There was an appreciable gap in the research for the specific population I was studying. Prior groups focused on specialized niches in special education, higher education, and in professional development experiences in other careers, but there was a lack of research on the effects of podcast listening coupled with reflection and collegial conversation for secondary educators. This research offered insight into how secondary teachers reacted to the act of podcast listening, what they reflected upon in the experience, and what they chose to discuss with colleagues as a result of the experience. The unique focus of this study, however, was on the three-component instructional treatment and not simply podcasts alone.

Chapter 3: Research Method

The purpose of this qualitative study was to explore the experiences of secondary educators from the southeastern United States and their engagement in podcast listening as a form of professional development. Chapter 3 describes the research design and provides support for the choice of using a case study. Chapter 3 also describes my role as the researcher and the ways in which I managed my own biases as a researcher. I describe my logic for participant selection and the instrumentation I used as part of my research methods. These included participant interviews, participant reflection journals, and collegial conversation observation. I explain my data analysis plan that was used to analyze each of my three data sources and how these aligned with my three research questions. I address issues of trustworthiness and describe all procedures that were put into place to ensure my research followed ethical rules. Finally, I provide an overall summary of the chapter.

Research Design and Rationale

I used a case study design for this qualitative study. The research questions were as follows:

1. What were the professional learning experiences of secondary educators who participated in educational podcast listening and reflection for professional development?
2. What were the professional learning experiences of secondary educators who participated in a collegial conversation following podcast listening and reflection for professional development?

3. What lesson plan designs or recommendations emerged from secondary educators' collegial conversation following podcast listening and reflection?

I used a qualitative case study approach to explore and describe the experiences of secondary educators immersed in an innovative mode of professional development. A case study is an exhaustive investigation into the varying components of an activity or experience set within its usual surroundings (Harling, 2012). Case studies have the capacity to focus on the unique circumstances of each case by scrutinizing observed details or shared emotions (Yin, 2016). I used an intrinsic case study design to focus on a single experience that all teacher participants shared and described. This experience was the action of podcast listening, reflecting, and collaboratively engaging in discussion about the information presented from the podcast with colleagues. My goal for this study was to understand teachers' experiences of their professional development sessions with the innovative podcast listening method. To do this, I used transcripts from individual interviews, independently written personal journals, and notes from observations of a collaborative conversations among educational colleagues.

Role of the Researcher

I was an observer in this study. I provided the participants with the link to a specific podcast episode from John Spencer's (2022) educational podcast *The Creative Classroom with John Spencer* called "Five Reasons Students Should Own the Assessment Process," as it was applicable to all educators on the secondary levels and was only 23 minutes. I asked them to listen to the podcast when it was most convenient for them prior to a collegial conversation and individual interviews. I also instructed each

participant to create one unique jot journal in which they reflected upon the learning they experienced while listening to the podcast or any ideas they might have had for their classes during the listening experience. The journals could have included jotted thoughts that individuals might have liked to discuss further with their colleagues or fleshed out as plans. The journal was an annotation to clarify questions with their colleagues that they might have had while listening to the podcast or to brainstorm ideas inspired by the podcast with other educators.

After participants listened to the specific podcast episode and wrote their reflective journals, they met as a collective group through three separate virtual video conferences to discuss their listening experiences and the ideations that resulted from their experience. The collaborative conversations lasted between 30 to 60 minutes, and I recorded them with Zoom video conferencing recording tool. Though this amount of time might have seemed relatively short, my intention was to provide a typical during or after-school professional development session, and those usually only lasted between 1 and 1-and-a-half hours. Participants listened to a podcast and reflected in jot journals for a portion of the time beforehand. I considered the other portion of the professional development experience when determining the length of the conversations. I provided more discussion time if participants indicated that it was necessary.

During the collegial conversations, I observed and made notes based on the information shared by the teacher participants. I also used the recordings to review the collaborative conversations and added to my field notes and original observations. Teacher participants could have used their journals to share information and could have

worked with colleagues to generate unit or lesson ideas that listening to the podcast inspired during this discussion, or they might have made plans for individual collaborations at a later time. These could have been further added to their reflective journals.

Following the period of collaborative, collegial conversation, I scheduled one-on-one interviews with each participant so they could describe and share their experiences as a part of the podcast listening, reflecting, and collaborating professional development session. The interviews were semistructured. I prepared the conversation questions beforehand, but they were open-ended questions, and I used them to guide the interview and allow it to flow organically. I used each of the semistructured interview questions with each participant, but follow-up questions differed based on the varied answers that were given.

I embraced my biases as a subjective researcher by accepting them but also ensuring that I adhered to a nonbiased system for the analysis of interview transcripts and observation notes. I asked all participants to review the transcripts from their individual interviews as well. Subjectivity bias was also accepted through the triangulation of all three data points in the identification of various themes from the participants' journals, recorded annotated information from the collaborative, collegial conversation, and personal interview notes and transcriptions. Finally, I was candid in stating biases to ensure that readers were aware of my position.

As this study was not done within my district, there were no conflicts of interest or power differentials that might have caused concern. Though I still might have known

some of the participants who took part in this research, I established with them from the beginning that any and all responses were received without judgment and had no bearing on their roles as professionals in any way. Each participant was made aware that every piece of information shared or observed would simply be used to describe an experience as they pertained to the research questions and would not affect their work or their relationship with me as the researcher. Similarly, no incentives were given. The only issue that might have needed to be addressed involved a statement to the members of the 2023 South Carolina District Teachers of the Year cohort. It was explicitly stated that participation in the study would have had no bearing on the selection of teacher finalists for the top 25, top 5, or the final winner of the 2025 South Carolina Teacher of the Year.

Methodology

The Logic for Participant Selection

The participant population was identified as secondary educators from the southeastern United States. The sampling strategy was purposeful sampling because it ensured the study of participants whose work would have been most applicable to understanding the phenomena. Selected participants were required to have been secondary teachers working with students from Grades 6-12 due to the unique insight they offered as classroom leaders who must make daily instructional choices for effective teaching. Another reason was that these were teachers who must have been involved in professional development experiences as dictated by their school and/or district leadership. These components were key as these teachers compared and contrasted the prescribed methods of professional development offered by their administrators with the

podcast listening, reflection, and collegial conversation professional development experienced within this professional learning session. It was also important to ensure that the participating teachers had more than 1 year of experience.

The initial invitation to participate included any secondary educators from the 2018 State Teachers of the Year cohort, the 2023 South Carolina District Teachers of the Year cohort, and secondary teachers from the southeastern United States. They were explicitly emailed or invited via social media, following approval from Walden University (IRB Approval 07-14-23-1026894). Once the teachers were contacted and surveyed, 13 of them were selected for the study. The specific procedures for selecting the final participants were based on commonalities shared among the teachers. Ideally, District Teachers of the Year from the same content (or closely related) areas would have been selected, although this was not an exclusionary factor. To be included in the study, teacher participants must have been secondary educators (from Grades 6-12) from the southeastern United States, must have been in an active role of instruction in the classroom during the time of their participation in the research, and must not have been first-year teachers. This meant that among the population of teachers invited to participate in the study through purposive sampling, educators who served as librarians, media specialists, instructional coaches, interventions, or school/guidance counselors were excluded from participation as they were not engaged in daily classroom instruction with students from Grades 6-12. Participants were known to meet the criteria after answering an initial survey via Google Forms concerning their current roles, grade levels, and levels of experience within their schools and districts at the time of the research.

Data Collection

I interviewed between 13 participants who participated in this Podcast professional development training. However, more participants would have been recruited if necessary, and the study's process would have been repeated and continued until data saturation was reached. This would have been to ensure that despite the small sample size, detailed information concerning the professional development experience could have been documented to find themes and categories that were shared among participants. Patton (2015) explained that with a sample size that had fewer members, researchers must be certain to continue gathering data until the "point of redundancy," where no new information was introduced in the data (Patton, 2015, p. 300). It would have been crucial to continue to gather data from jot reflection journals and conduct interviews until it was evident that specific themes and categories had been established and that no new information was introduced by the participants.

Participants received an invitation to participate once they have been named District Teachers of the Year in South Carolina. I reached out to the executive director and the program director of a specific teacher organization in that state that mentored teachers through their year of service as District Teachers of the Year. This program provided professional development in leadership and guided advancement in the teaching profession. This organization was the Center for Educator Recruitment, Retention, and Advancement. I did not have a role in this organization at the time of this research, but as the 2018 State Teacher of the Year, I have been invited back yearly to share my insights as a teacher leader, lead professional development sessions, and participate in panel

discussions. Once permission had been granted, all District Teachers of the Year were sent an invitation to participate if they met the inclusion criteria (actively teaching in grades 6-12, more than 1 year in the classroom, and actively engaged in instruction). A link to a survey was provided to recruit and identify those teachers who were willing to join the study. Social media posts were also made to recruit secondary teachers for this research. Interested potential participants were provided an email address to reach out to, and they were then given the Google form link for the initial survey to determine if they met the necessary criteria. Those who met the requirements were invited to join the study.

Instrumentation

There were three separate data collection instruments used for this study. I conducted individual interviews, analyzed independent jot journals, and made observations of collegial conversations recorded over a video conference call.

Participant Interviews

One data source I used was a transcript (both written and audio) from an individual interview with each participant. I conducted interviews via a virtual video conferencing call, and I recorded and coded each interview to ensure the anonymity of my participants. I used Microsoft Word Online's dictation tool to create preliminary transcripts and then used the recorded audio to make any transcription revisions.

I used a semi structured interview guide to conduct each interview. Myers and Neuman (2007) explained that the use of an unstructured or semi structured interview created the opportunity for focused questioning based on a foundational outline, but it also offered the flexibility to flow more naturally into a deeper conversation based on

participant answers. Patton (2015) reinforced this assertion by explaining that the unrestricted nature of semi structured interviews gave participants a chance to share more detailed, descriptive information. Similarly, Rubin and Rubin (2012) described necessary questioning criteria as those that included the research questions themselves that were linked to questions regarding details about the participants' experiences so that they were given opportunities for expanding their conversation. Thus, related questions were written that could have been used to follow up on information provided by the participants as answers to the original research questions. Because it was based on the research questions specific to the study, a researcher-produced interview guide was used. Sample questions are provided below, and the full semi structured interview guide is provided in Appendix A.

1. What was your experience listening to the educational podcast?
2. What was your experience writing your jot journal reflection for PD after listening to the educational podcast?
3. What was your experience in participating in collegial conversation after listening to the educational podcast and writing your jot reflection journal?
4. What educational ideas, designs, or recommendations resulted from your conversation with your colleagues?
5. What was your overall impression of this professional development experience?

Participant Reflection Journals

The next data source was each individual participant's reflective jot journal, which was written during or following the podcast listening experience. Participants were

not asked to respond to formal questions, but they were asked to jot ideas or questions they might have had either during or immediately following their independent podcast listening experience. The statement of directions for jot journal writing was given in Appendix B. Participants had to write in their journals only once, but they were asked to bring them to the collegial conversation to use as points of discussion. They might have also added notes to this during the collegial conversation as they needed. I asked participants to send me their jot journals via email following the collegial conversation. This provided time for them to make additions to their thoughts and how they processed the information learned from the podcast after conversing with their peers in education. These, too, were analyzed as a source of data.

Observational Notes

I gathered the third data source by taking observational notes during the participants' collaborative discussions among colleagues. These notes were descriptive and reflective. The form I used to record these notes is provided in Appendix C. Creswell (2016) explained that observation protocols should provide information about the activities that took place (descriptive) as well as interpretations and insights garnered from the observation (reflective). Due to the number of participants, three sections of collegial conversation were held. Six participants were in the first conversation, four were in the second conversation, and three were in the third conversation. The participants of each section joined together in a 30 to 60-minute video conference call, and their conversations and interactions were recorded. I initiated the collegial conversations and served as the discussion moderator by using guiding prompts as necessary. The potential

prompts are provided in Appendix D and aligned with the third research question.

Appendix C was solely used to collect data from my observation of the collegial conversation. Appendix D was used to guide the conversation, if it was necessary. While participants discussed their podcast listening experiences, they were encouraged to use the jot journals they created as guides for conversations so that the conversations were both organic and genuine. I observed gestures and facial expressions while participants conversed and made notes of their reactions to the shared experiences and ideas. I also made notes and observations about the topics they discussed and further ideas they generated through these conversations.

Data Analysis Plan

While each of the research questions connected to the triangulated data from all three data collections, information from individual interviews and the reflection journals was most pertinent for research question 1: “What were the professional learning experiences of secondary educators who participated in educational podcast listening and reflection for professional development?” and research question 3: “What lesson plan designs or recommendations emerged from secondary educators’ collegial conversation following podcast listening and reflection? For research question 2, “What were the professional learning experiences of secondary educators who participated in a collegial conversation following podcast listening and reflection for professional development?” observational notes and interview transcripts were best used to describe the overall experiences. I also relied upon my intuition to make inferences based on implications made by participants. These were noted in the observations and were included in

individual interviews for further clarification of each participant's professional learning experience.

The answers provided from the interviews, thoughts shared in the jot journals, and the information discussed and observed during the collegial conversation were structurally coded. Structural coding assisted in compiling and categorizing specific words, phrases, and ideas that were repeatedly shared by my participants (Patton, 2015). Based on Saldana's (2016) explanation, structural coding was used to develop a "content-based or conceptual phrase" that related to portions of the research questions developed for the interview. This ensured that the research questions and interview questions aligned and further ensured that the coded information matched each (Saldana, 2016, p. 98). While working on coding the information from verbatim transcripts, collegial conversation observations, and jot journal reflections, I looked for patterns that emerged in the shared information. Though these data collections might have aligned more strongly with specific research questions, the emerging themes derived from all data collections were triangulated to develop a full analysis for the entire study, as each component of the professional development experience was dependent upon the other two. Table 1 provides the alignment between the research questions, the data sources, and the analysis thereof.

When analyzing each data source, I first coded them to identify recurring themes and concepts. I then returned to each source from each participant and began to categorize responses based on the themes that had emerged from their individual interviews and their independently written jot journals. Once the categories were

identified and created, I analyzed how the data answered each of the research questions.

Although I performed initial as well as structural coding, I also employed the use of the NVivo software program. I used a student license of this software program to import all of my interview transcriptions (free of codes) and videos as well as my observations (free of codes) from the collegial conversations and those video recordings. I also imported the jot journals (free of codes) produced by each participant. Upon the import of each of these data sources, I employed the use of open coding using the software. Allsop et al. (2022) explained that qualitative studies have in the past been questioned and considered unreliable due to limitations in duplication or repetition. Furthermore, Allsop et al. expressed concerns that members of the research community had involving the accuracy of findings or whether or not research methods had been meticulous in qualitative studies. To provide greater assurance in a qualitative study's "replicability and rigor," Allsop et al. recommended using the open coding method with NVivo coupled with the "Keyword Method" to have a predetermined concept to discover (Allsop et al., 2022, pp. 146-147). They explained that this method provided all related keywords and employed the use of synonyms to broaden the scope of the search. The use of this method provided a deeper understanding of the professional learning experiences that each of my research participants had (Allsop et al., 2022).

To develop my final analysis of the data, I considered the information I gleaned from my hand-coded method coupled with the outcomes found through the NVivo open coding with keyword analysis. I re-categorized where it was necessary and re-analyzed how each piece of data provided insight concerning one of my three research questions.

These were described as such in my final data analysis. The table below shows the correlation between my research questions, the data sources, and the data analysis that was performed.

Table 1*Data Analysis Plan*

Research Questions	Data Sources	Analysis
1. What were the professional learning experiences of secondary educators who participated in educational podcast listening and reflection for professional development?	<p>- Interview Questions 1, 2, 5, 6, 7, 8, 9, and 10</p> <p>IQ 1: What was your experience as a professional learner while listening to the educational podcast?</p> <p>IQ 2: What was your experience as a professional learner in writing your jot journal reflection for PD after listening to the educational podcast?</p> <p>IQ 5: What was your overall impression of this professional development experience?</p> <p>IQ 6: How does this professional development experience compare with others you have had in the past?</p> <p>IQ 7: If you were designing a professional development experience which if any, aspects of this experience would you implement and why?</p> <p>IQ 8: Which aspects of this PD experience would you NOT include and why?</p> <p>IQ 9: Which professional development experiences best suit your needs as an educator and professional learner?</p> <p>IQ 10: Is there anything else you would like to share about your experience?</p> <p>- Participant Reflection Journals</p>	Structural Coding was used for analyzing interview questions and for analyzing participant reflection journals.
2. What were the professional learning experiences of secondary educators who participated in a collegial conversation following podcast listening and reflection for professional development?	<p>- Interview Questions 3, 5, 6, 7, 8, 9, and 10</p> <p>IQ 3: What was your experience as a professional learner while participating in collegial conversation after listening to the educational podcast and writing your jot reflection journal?</p> <p>IQ 5: What was your overall impression of this professional development experience?</p> <p>IQ 6: How does this professional development experience compare with others you have had in the past?</p> <p>IQ 7: If you were designing a professional development experience which if any, aspects of this experience would you implement and why?</p> <p>IQ 8: Which aspects of this PD experience would you NOT include and why?</p> <p>IQ 9: Which professional development experiences best suit your needs as an</p>	Structural Coding was used for analyzing interview questions and for analyzing collegial conversation observations noted in Appendix C and guided by prompts from Appendix D.

	educator and professional learner?	
	IQ 10: Is there anything else you would like to share about your experience?	
	- Collegial Conversations and Observations thereof	
3. What lesson plan designs or recommendations emerged from secondary educators' collegial conversation following podcast listening and reflection?	- Interview Questions 4, 5, 6, and 10	Structural Coding was used for analyzing interview questions and for analyzing collegial conversation observations noted in Appendix C and guided by prompts from Appendix D.
	IQ 4: What educational ideas, designs, or recommendations resulted from your conversation with your colleagues?	
	IQ 5: What was your overall impression of this professional development experience?	
	IQ 6: How does this professional development experience compare with others you have had in the past?	
	IQ 10: Is there anything else you would like to share about your experience?	
	- Collegial Conversations and Observations thereof	

Issues of Trustworthiness

When gathering and analyzing data, it was imperative that the results and explanation of the data be valid and trustworthy. Creswell and Guetterman (2019) explained that trustworthiness could be established within a study through a variety of methods. These included credibility, transferability, dependability, and the admission of “biases and assumptions” by conceding that limitations to the study exist (Creswell & Guetterman, 2019, p. 258).

One aspect of trustworthiness in a study was the concept of credibility. For a study to be credible, several methods must have been used to ensure that each piece of data was accurate and that the researcher's explanation of the analysis of that data was precise. The use of member checking and coding created this assurance (Creswell & Guetterman, 2019).

Another aspect of trustworthiness was transferability, which meant that the study

could have been replicated in other settings and with other participants to yield the same results (Creswell & Guetterman, 2019). Trustworthiness was assured by accurately providing condition explanations as well as explicit instructions regarding the study's features. Through the provision of these, the study would have then been ensured to be more reliable and dependable as it had the capability to be repeated through the application of extended techniques (Creswell & Guetterman, 2019).

Finally, researcher bias was concentrated upon through a direct admission of researcher inclinations regarding the subject as well as the expectations made concerning participants, activities, or outcomes. If researchers provided a forthright explanation of what they assumed might take place within the confines of the study, this direct address allowed for their interpretations of the data and the results to have had more analytical validity. Again, the use of member checking to provide participants with the opportunity to address or clarify the data or the data analysis quelled any research bias within the interpretation of data or results. Similarly, the use of triangulation among various data sources validated and authenticated the findings beyond any biases that the researcher might have possessed (Creswell & Guetterman, 2019).

As described above, triangulation was a procedure where researchers used a variety of data sources to determine a connective concept or "theme" (Creswell & Guetterman, 2019, p. 259). The thematic developments were considered more accurate interpretations because they had multiple sources of existence. While triangulation provided greater validity for the way data were interpreted, I also used member checking to ensure that all data used for analysis were accurate and error-free. Member checking

took place when researchers requested their participants to review the data collected, either via transcript or the analysis of data, and asked them to report whether the information was correct from their perspective (Creswell & Guetterman, 2019). I provided each participant with a copy of the verbatim interview transcript for their perusal in order to ensure that I had accurately recorded their experiences. The transferability of this study provided several options that could have made it applicable to other teaching levels, to other regions, or to other related realms of education. For instance, this study specified secondary teachers from a Southeastern region of the United States, but that could have been varied. To ensure the study's confirmability, the research included reflexivity, the examination of personal impressions and motivations and their effect upon a situation, through disclosure of both bias and subjective thoughts occurring within individual interviews and/or the collaborative conversation observation.

Ethical Procedures

I ensured that ethical procedures were in place before, during, and following the study. Smith (2003) explained that there were five tenets guiding ethical practices in research. First, all "intellectual property" were credited (Smith, 2003, para. 5). Second, no participants were secured or accessed prior to IRB approval of the study. Third, all informed consent rules were followed to ensure that participants understood that their participation in this study was completely voluntary. Fourth, participants were fully informed of all that the study entailed, including the purpose of the study, all proceedings, and the length of their involvement (Smith, 2003). Fifth, participants were assured of both confidentiality and anonymity verbally and were given a confidentiality

agreement to sign.

To ensure confidentiality and anonymity, participants were assured that no mention of their names, schools, or districts would be made in any drafts or final publications of the study. Any identifying information was removed, and all interviews, journals, and observations related to the participant were coded. Each participant was signified using a letter, and all artifacts and transcriptions from each participant were coded as such. Thus, if the first research participant was coded as Participant A, then any observations made for that participant were coded using that letter. The same participant's audio interview, interview transcription, and jot reflection journal were coded under the same letter as well. This continued in the same way for all other participants using subsequent letters as signifiers.

I, as the researcher, was also be candid about my role. All participants understood that their voluntary cooperation in the study had no bearing upon any future work they did for their school, district, state, or the Center for Educator Recruitment, Retention, and Advancement. I was conscious of not developing relationships with my participants as it would have compromised the credibility of the study (Smith, 2003).

Summary

This chapter looked specifically at the research design and rationale for this study and described my role as the researcher. The use of a qualitative case study was the most useful means of studying this phenomenon as it provided a way to explore and describe the experiences of the participants. I served as an observer in my role, and I used a semi structured interview guide to conduct all interviews and record responses. The

methodology was explained, including methods for securing study participants through purposeful sampling and selection for study inclusion and exclusion. My data analysis plan was to triangulate the data from the three collections, and I used semi structured interviews, participant reflection journals (referred to as “jot journals”), and observations made during a virtual collegial conversation as my instrumentation. I used structural coding to delineate the themes and categories that emerged from participants’ experiences. Finally, issues of trustworthiness, validity, and credibility were discussed as well as intended methods to ensure that all work for this study adhered to ethical standards. Chapter 4 will share the results of the study and the experiences shared by study participants.

Chapter 4: Results

Three guiding questions directed my research as I worked to discover if a form of professional development centering on teacher podcast listening coupled with both independent jot journal reflection and shared collegial conversation:

1. What were the professional learning experiences of secondary educators who participated in educational podcast listening and reflection for professional development?
2. What were the professional learning experiences of secondary educators who participated in a collegial conversation following podcast listening and reflection for professional development?
3. What lesson plan designs or recommendations emerged from secondary educators' collegial conversation following podcast listening and reflection?

These questions also sought to answer whether this new kind of professional learning experience would extend in the development of unit or lesson plans or if other teacher recommendations might occur as a result from the professional learning experience.

Because I used a case study approach, I triangulated data from 13 participants' jot journals (which had been made independently during or after podcast listening), my observations and reflections from the collegial conversations that were shared among participants as they discussed the podcast they had listened to, and interviews conducted individually with each participant. Each of the jot journals, observations and reflections from the three collegial conversations (including video transcripts), and interview transcripts were analyzed and coded to reveal major themes that paralleled the three

research questions. Chapter 4 discusses the ways in which data were collected, participant demographics, data collection and analysis, evidence of trustworthiness, the results of the data, and a chapter summary.

Setting

There were three settings for this study. While I invited veteran teachers with more than 1 year of classroom experience from across the southeastern United States, most of the participants were located in South Carolina. Due to the distances that separated the individual participants, collegial conversations and independent interviews took place via a virtual setting using the Zoom video conferencing tool. Using this virtual resource, I held three separate collegial conversations with six, four, and three participants, respectively. I also used the Zoom video conferencing tool for all 13 individual interviews. Microsoft Word Online was used to create transcripts of all collegial conversations and interviews using the dictation tool. Later, all interview transcripts were edited for clarity and sent to individual participants for member checking.

There are several factors that may have influenced the results of this study or the interpretation of the data that were collected. Though each of the participants met the study's qualifications for being secondary teachers in the southeastern United States, there were still numerous differences among them. These included the grade levels in which they taught, the content areas in which they held expertise, and the number of years they had been practicing in the classroom. Another factor was my dual role as both the researcher and the facilitator of the collegial conversation.

Demographics

There were 13 participants who consented to be a part of this study. Of those 13 teacher participants, 10 taught at the high school level in Grades 9-12 (Participants A, B, C, D, E, F, G, I, K, and M). One of those teachers had taught in-person for 18 years and was teaching via a virtual platform for the first time. Among the 10 high school teaching participants, four were English language arts teachers, three were science teachers, one was a math teacher, one teacher taught special education, and one teacher taught teacher Cadets. Two of these 10 teachers also taught course beyond their initial disciplinary focus: one English language arts teacher was also a teacher cadet teacher, and one science teacher also taught an advancement via individual determination elective course. The years of experience the high school teaching participants had ranged from 11-36 years.

There were three participants who taught at the middle school level in Grades 6 to 8 (Participants H, J, and L). One was an English language arts teacher, and another was a science teacher. The final study participant taught middle school fine arts. The years of experience the middle school teaching participants had ranged from 2 to 9 years.

Data Collection

Participants created their own jot journals based on individual preferences. Though I had shared a prepared template, some preferred to use notebooks or other digital means to produce their journals in the way that best supported their learning and annotation styles. These journals were sometimes used by participants during the collegial conversations, and all journals were sent to me via email at the end of their professional learning experiences.

All three collegial conversations were conducted via the Zoom video conferencing platform and were recorded for later observation and reflection. The discussions that took place during the collegial conversations were also transcribed using the dictation tool available through Microsoft Word Online. Having a video recording and transcription allowed me as the researcher to serve as a host and guide the conversation. This ensured that all participants were able to share their thoughts and insights regarding the podcast they had all listened to. I was later able to re-watch and read through the transcriptions to make my observations and reflections concerning the collegial conversation. I did not make edits or revisions to the conversation transcriptions as those did not require member checking nor did my data collection require anything beyond the observation of the video. Those transcriptions served to ensure that another copy of the conversation existed should anything have happened to the video recordings.

I conducted individual interviews soon after their collegial conversations had been concluded at times that were most convenient for each participant. The interviews were also conducted via Zoom and also transcribed using the Microsoft Word Online dictation tool. As the transcriptions for each of the interviews did require member checking, I edited and revised each interview transcription using the video recording and then sent each one to the respective participant to ensure accuracy.

Data Analysis

I initially coded each of these data sources (jot journals, conversation observations and reflections, and interviews) to determine themes and categories that existed among all three. Then I made an in-depth chart concerning how participants answered their

interview questions using my original data analysis plan. Later, I uploaded each of the three collegial conversation transcripts, each interview transcript, and each participant journal into NVivo for more in-depth coding using the established themes. I continued with hand-coding the observations and reflections I had taken during the collegial conversations because scanning them into the NVivo system necessarily transformed them into PDF versions that could not be manipulated within the system. The continuation of hand-coding allowed me the option to still include them as necessary data points.

There were eight themes that emerged from the analyzed data. Three of these themes supported Research Question 1 concerning the professional learning experiences of secondary educators who participate in educational podcast listening and reflection for professional development (see Table 2). Two themes emerged that supported Research Question 2 concerning the professional learning experiences of secondary educators who participate in a collegial conversation following educational podcast listening and reflection for professional development. Three themes emerged that support Research Question 3 concerning the lesson plan designs and recommendations that resulted from secondary educators' collegial conversations following podcast listening and reflection.

Table 2

Table Showing List of Themes

Research Questions	Themes
What were the professional learning experiences of secondary educators who participated in educational podcast listening and reflection for professional development?	<ol style="list-style-type: none"> 1. Learning Autonomy Provisions 2. Meaningful Personal Connectivity 3. Modes for Capturing Ideas

What were the professional learning experiences of secondary educators who participated in a collegial conversation following podcast listening and reflection for professional development?	<ol style="list-style-type: none"> 1. Purposeful Interaction and Support among Teachers 2. Accommodation and Pliancy of the Professional Learning Experience
What lesson plan designs or recommendations emerged from secondary educators' collegial conversation following podcast listening and reflection?	<ol style="list-style-type: none"> 1. Peer Collaboration for Classroom Learners 2. Self-Assessment for Individual Student Reflection 3. Self-Assessment for Independent Student Growth

Evidence of Trustworthiness

Trustworthiness is a vital aspect of any research study for its relevance (Adler, 2022). Several methods can be used to ensure that trustworthiness exists within a study (Creswell & Guetterman, 2019). Some of these methods include the establishment of credibility, the creation of transferability, the evidence of dependability, and the concession to limitations that exist within the study due to “biases and assumptions” (Creswell & Guetterman, 2019, p. 258).

In order to address the need for credibility to ensure that the research was trustworthy, data must be confirmed for accuracy and precision. Within this study, member checking and coding were used to ensure that data were both accurate and precise. Following the completion of each interview transcript revision, participants were sent copies of the transcripts and asked to review them for accuracy. No participants reported any discrepancies within their interview transcripts (Creswell & Guetterman, 2019).

The second aspect of trustworthiness to address is the notion of transferability. In order to achieve transferability, researchers from other places and with other sets of

participants should be able to glean the same results through the employment of the same research methods (Creswell & Guetterman, 2019). By providing an accurate account of how participants were selected, how the research was conducted, and how data were collected and analyzed, this study can be relied upon for its transferability in other settings and with a variance in participants (Creswell & Guetterman, 2019).

Another aspect of trustworthiness that must be included is researcher reflexivity. It is imperative that researchers be open and honest about their societal relations with research participants and their own thoughts concerning the study and how those may disrupt the objective stance that the researcher holds (Adler, 2022). I have no power or authority over any of the study's participants, and my own biases and assumptions have been made evident throughout the course of the study and within all writing thereof. Throughout the planning for this research; facilitating conversations and conducting interviews; and collecting, analyzing, and interpreting the data, I have assessed the lens through which I have viewed the research and worked to suppress my beliefs when possible (Adler, 2022).

The final method by which I attempted to assure trustworthiness was through triangulation. Using a method of "cross-checking" data through multiple data points allows for greater study credibility (Adler, 2022, p. 601). Three different methods of data collection were used to ensure that the resulting themes were accurate and could be relied upon. These triangulated methods were the jot journals, observations and notes from collegial conversations, and individual participant interviews.

Results

Research Question 1: What Were the Professional Learning Experiences of Secondary Educators Who Participated in Educational Podcast Listening and Reflection for Professional Development?

While the participants who engaged in this study were from varied content areas and were secondary educators, and though these 13 educators were separated into three different virtual collegial conversations in order to accommodate their scheduling needs, three themes emerged. These themes were learning autonomy provisions, meaningful personal connectivity, and modes for capturing ideas.

Theme 1: Learning Autonomy Provisions

The first common shared experience that emerged among participants indicated that educational podcast listening and reflection as a form of professional development provided autonomy for professional learning. Several participants cited that this form of professional development offered “convenience” and “flexibility,” which met their needs as experts in the educational field who are intent upon growing in their practice. Between the collegial conversation transcripts and the 13 interview transcripts, this theme was referenced 68 times. For example, Participant A explained explicitly in the one-on-one interview, “I liked the flexibility of it.” Participant M further expounded the benefits of convenience and flexibility by explaining in an independent interview that,

I appreciated the ability to listen to the podcast at the time that was convenient for me. That [it] was not something that I had to go into a lecture hall and sit and listen to you for 30 minutes, knowing that I had other pressing matters that I

needed to attend to ... So I appreciated the flexibility there.

Convenience and flexibility were not relegated to participation in the collegial conversation either. I noted in my observations and reflections during the first collegial conversation that Participant I explained “[loving] pajama PD” and enjoyed listening to the podcast while vacuuming the house. Similarly, Participant F explained in the individual interview that podcast listening and jot journaling had been able to take place while at the pool with family:

It was ... nice because I was like, “My kids are occupied,” and I could plug in, and I just had my headphones in, and I was able to, like, do something for me but also ... do something for school, too, if that makes sense.

While the convenience and flexibility of this portion of the professional development experience continued to have support, other participants noted other learning autonomy provisions. Participant D was excited by the use of the podcast for professional development because of what it could mean in terms of work with other teachers:

The whole concept ... of a podcast as professional development, I thought, was just brilliant. This is just great because it can be, you know, it doesn't necessarily have to be in person. It could be assigned to teachers. It can be ... you can listen to it in your car! I just love that.

Finally, in a one-on-one interview conversation, Participant G summarized the experience by saying,

I could do it my own way, and then we had a couple of options for times to get

together to talk about it. So I feel like that was very accommodating for a professional; like, “Okay, this is important. I’ve agreed to do this, but I can say what works for me” ... So it’s kind of structured, but I have choices, and I think that works for today’s teachers.

The provision for learning autonomy, however, did not extend only to the scheduling convenience and flexibility it offered to teachers as they worked to grow their practice. Other participants explained that in their experience they also had autonomy concerning how reflections were jotted and that this provision gave more personal control over the learning. Several participants explained that podcast listening and jot journaling alone were not enough to establish solid professional learning and that they needed additional means for growth. They found this in the form of the podcast transcript, which several participants used by reading while podcast listening and jotting annotations either during or after their podcast listening experience. Participant I shared the need to use the podcast transcript because,

I really found it difficult to just sit and listen, even though I was taking notes, so what I did is I noticed that on his [the podcaster’s] blog ... was a transcript of what he had written. And so I needed that ... physical follow along so that my brain could stay engaged.

This was also true for Participant J. Participant J explained that before the collegial conversation took place,

I actually read through the podcast again, since there was ... a version that you could read from. So I read through it again, just to kind of refresh, and jotted

down a few more things so that I was prepared coming into the collegial conversation.

While some participants used the transcript to autonomously meet their learning needs, others were appreciative of the open-ended aspect of the jot journals. They felt that this provided another learning capability that further bolstered their autonomy by allowing them to hone in on information that pertained more to their individual work and classroom needs. For example, Participant A stated that the ambiguity of the jot journal did not dictate the learning that should have been experienced: “I don’t feel boxed in—like, there’s a right or there’s a wrong, and there’s certainly to be looking for it—sort of ... just what are your thoughts? What are your reflections? So I really like that process.”

Participants H and J also reported an appreciation for the open-ended nature of the jot journals. Participant H explained liking, “the ability to just be loose with it ... just to write down my thoughts as they came.” Participant J’s interview had a similar viewpoint as that of Participant H in terms of the open-ended ambiguity of the jot journal. This participant expressed a positive feeling toward the jot journal:

I liked the journal a lot because it wasn’t like a structured “Answer these questions.” It was “As you’re listening, just jot down your thoughts and inspirations and concerns.” And I like just being able to write what I want to write and not have to answer specific questions because I’m writing what’s meaningful to me versus trying to look up an answer to a question that I had to get down. So I enjoyed that part of it.

However, another affinity for the inclusion of the jot journal as part of the

professional development experience was also shared. Participant B further explained that the jot journals provided a means for further reflection beyond just the listening and the collegial conversation:

I like the jot journal because, even today talking to you, it allows me to kind of go back and ... look back over the podcast, the written part of the podcast, and I kind of looked back over my notes, and it just ... it kind of showed me where my brain was at the time.”

The need for personal autonomy through allowed learning provisions was not confined only to the need for a digital transcript and the open-ended quality offered through jot journaling, both of which could be used to during and after podcast listening. During the second collegial conversation, one participant stated that being able to experience professional learning in a personal space allowed for access to all files created for instruction. In a discussion with colleagues, Participant E explained that while listening and jotting, jotting was paused, and the decision to “start[ed] pulling up the projects ... that [the students are] working on the next few months and ... started ... adding the self-assessment component to all of those.” Participant E further reported to other participants during that conversation that there were “new drafts of the project to print.”

The opportunity to professionally learn in one’s space was reiterated by this same participant in the one-on-one interview. During the interview, Participant E explained how the experience felt as an expert in the field:

I was able to actually be a learner. I wasn’t ... forced to be held hostage in a room

with one hundred people listening to some really good ideas, jotting notes down, and hoping I remembered them later ... I had my files. I had my space. And I could kind of work my way through what I was hearing in a real way.

Still, others found the concision and brevity of the format preferable and added more positive aspects of the provision for learning autonomy. For instance, Participant A stated, "I liked that mode of learning ... It wasn't too long. It wasn't boring. It was helpful. It was useful." Other participants also discussed an appreciation for the brief nature of the podcast listening experience. Participant D discussed the opportunity that was afforded to deepen the experience due to the shortened nature it offered in saying,

Honestly, it was short enough, and it being a podcast, I actually went back and listened to some of the parts and then looked at my notes, the jot journal notes, and made ... annotations and ... put more on it. I loved it all.

Another participant also explained the use of re-listening as part of the learning autonomy provision. Participant M stated (as others also did) an appreciation for the ability to re-listen as needed:

I like the ability to start and stop. So if something is recorded, I like the ability to [say] 'hold on, I like that. What did they say?' and go back and record it or play it back again. I like that aspect of it.

Participant M also further emphasized the brevity of the professional learning experience through the use of podcast listening and jot journal reflection in stating that, "it was concise. And it was, like I said, where I could listen to it on my time."

Within both the collegial conversation and individual interviews, participants

made clear their overall appreciation for the autonomy for professional learning the professional development experience offered, thus the reason for this theme's emergence. Several participants noted that the professional learning experience was convenient, flexible, and brief; they explained that these were enjoyable aspects of the professional development session. For these reasons, they supported the use of this as a potential method for professional development. Other participants felt that because the professional development provided them with a variety of ways to interact with colleagues and the opportunity to have greater control over their learning (in terms of space, resources, and interactivity with the podcast and journals), their professional needs were well met.

Theme 2: Meaningful Personal Connectivity

A second common shared theme that emerged among participants for Research Question 1 was that the experience of podcast listening and jot journal reflection as a form of professional development provided meaningful personal connectivity for them as teaching experts. Teachers have often reported the need for professional development to be meaningful to them and their work with students. This sentiment was expressed many times in all three data collection methods: during the collegial conversations, in individual interviews, and within the jot journals.

In the interviews with participants, several stated that the experience of podcast listening and jot journal reflection as a form of professional development offered personal meaningful connections to them and their teaching practice. For example, Participant A expressed that the experience,

really did give me some new things to think about, some new ideas, and just some ways to reflect on my process because I think sometimes you get stuck in doing the exact same things all the time. So it's good just to do my own self-reflection and think about how I can make my own instructions better in my own assessment ... especially when it comes to getting students to reflect on their own learning and reflect on their own process.

For some participants, the experience was an affirming one for their teaching philosophy and instructional practices. In particular, Participant B stated: "I felt very validated with the podcast ... I got some great ideas when we all chatted also, but I just ... I feel validated on a lot of strategies we use." This sentiment was echoed in a different collegial conversation separate from the one that Participant B engaged in, and it speaks toward the universal appeal the information held for several participants in terms of their meaningful personal connection. For example, during the third collegial conversation, Participant K expressed that "he actually reaffirmed something that I've been doing." Such affirmations are meaningful to teachers because it supports their confidence in continuing classroom instructional practices that benefit student learning. Another participant (Participant G) shared a sense of affirmation while podcast listening and jot journaling. In the individual interview, Participant G also found the content and the experience to be affirming of classroom practices; Participant G stated,

I was just kind of writing down a lot of things that I knew to be true, you know? I guess that I agreed with that squared with my experience ... and so that again just kind of affirmed what I know to be true.

While some participants felt the experience validated their instructional practices and classroom teaching choices, others had meaningful personal connectivity in questions concerning what they might consider next to amplify their teaching practices. For instance, Participant G considered questions for next steps: “I was curious because I’m really trying to delve into that, ‘How can I use that more effectively in my own classes?’” Participant G went on to say later in the interview that:

One of the main things I really thought about was ‘How can I implement this in my classroom?’ because the idea of it is very enticing, but something that I always come and it hits me is, ‘This sounds like a great idea, but what is the workload that leads up to actually doing it?’

Another participant made a point to reiterate the necessity of meaningful connectivity. Participant K summed it up best with a statement concerning why meaningful connection matters:

I have to have reasons why it’s going to be useful in my classroom. Why does it matter to the kids? Why does it matter to my practice? So ... that ... that has to be ... I have to see the work in that in order for me to buy into it.

Though most of the comments concerning each participant’s meaningful personal connections were shared either during collegial conversations and interviews, an analysis of individual jot journals showed incredible similarity in the meaningful information participants noted as major takeaways. Participant A wrote, “I LOVE the idea of students taking more ownership of assessments and being an active part of the process.” Similarly, Participant E expressed a desire to ensure that student learning was personally

meaningful through the annotation: “Compliance is not learning—how to make learning less compliant?”

Other participants had similar jot journal annotations related to this theme. Participant G echoed both the sentiments of Participant A and Participant E with the annotation: “Compliance vs. Engagement to Empowerment→Examples in action? →With low-level students?” Another participant also chose to focus upon student engagement in jot journal annotations. Participant H noted the following information relating to student ownership and engagement with learning: “We do see that commitment when students own the process sometimes—when they’re fully engaged in a project that they’re passionate about maybe. Where you think they’d continue on their own if necessary.” Participant H further jotted personal connections with personal teaching experiences and students: “Engagement: attention and commitment—I’ve found that this a challenge in post-COVID teaching ... Engagement: high attention and high commitment—This is [student] in honors; [student] loves to learn and [student] loves to seek out more information.”

Several more participants expressed an attentiveness to student engagement in their jot journal annotations. Participant I annotated a personal meaningful connection similar to those stated prior by stating, “Increased buy-in=better engagement—teacher centered is more about compliance. Student-centered is more about being empowered and out of sense of ownership.” Participant J also noted the same sentiments as those shared above as being personally and meaningfully connected to one’s teaching practice: “Take students from compliance to engagement to empowerment.” Another participant probed

more deeply into the concept: Participant L's jot journal annotation summarized all of these meaningful personal connections about student compliance, engagement, ownership, and empowerment by writing, "I agree with the struggle of students not taking the process seriously—How do you make students care?—Said that students take it seriously—But how do you approach those that do not care?"

Each of these jot journal entries showed teachers individually grappling with how they can use the learning information from the podcast to enhance the learning experiences in their classrooms and with their students. Each one revealed that while teachers listened and jotted independently, they shared common meaningful personal connections. These annotations were important in that they could (and in some cases, they were) later be discussed in conversation and developed into classroom management and instructional strategies with others, both in the study's collegial conversations and with personal colleagues in the educational field.

Theme 3: Modes for Capturing Ideas

A final common theme shared among participants concerning the professional learning experiences of secondary educators who participate in educational podcast listening and jot journal reflection as a form of professional development was the possible modes that could be available for capturing ideas. The use of the jot journal was a popular one, as many participants insisted that writing down ideas helped them learn more deeply and remember concepts more accurately. However, several individuals did share ideas for modes for capturing ideas and knowledge beyond jot journaling.

One of the first ways some participants suggested ideas for sharing was through

technological additions. In the individual interview, Participant D suggested, “ ... maybe something that you could add would be, like, a technology component where they all compile their takeaways or something like that, the jot journal, whatever.” Participant D continued later to say, “ ... it could be something that you continuously have a Google Drive, and they drop lesson plans into or lesson ideas, their jot journals ... it could just continue on for the school year.”

Several participants also felt that technology could be included as a means for annotating thoughts emerging while podcast listening and for sharing those ideas. Participant I advised using a technological group capture resource: “ ... a Padlet that just had people ... share ... jot journals, and then you saw ... what they brought to the table.” Two other technology group capture resources were suggested by Participant M: “In lieu of probably a collegial conversation, I would probably have done ... a Nearpod or something like that or a Flipgrid, and have everybody put their responses up there to certain questions.”

There were still other participants who suggested other means by which information could be collected and developed. Participant E explained the need for differentiating modes for capturing ideas by stating, “I wish there was professional development out there that was like, ‘Hey, here’s this idea; here’s how I used it in my practice. You’re welcome to use it however you like.’” In a separate individual interview, Participant A reiterated the same thoughts that Participant E had expressed:

I would be interested in ... maybe if anyone developed an kind of ... self-assessment checklist-like checklist or anything they actually implemented ... I

would be interested in seeing how that played out; maybe for people, if they found something that worked really well, or if they had, like, a great little lesson that they were able to show how they did or have a Google doc or something.

The ability to have collegial sharing goes beyond the conversation. There must be something tangible that teachers can use within their practice in order for them to experience greater connectivity with the information gleaned from professional learning.

The development of this theme proved to be an extremely important one.

Professional development experiences should not solely focus upon the growth of individual teachers; they should also provide a means for enhancing the collective growth of educators and their shared learning experiences. In this way, if ideas from professional development experiences can be captured and shared in a variety of ways—between and among learners—educational professionals will then have larger idea pools from which to select to best meet the needs of their students.

Research Question 2: What Were the Professional Learning Experiences of Secondary Educators Who Participated in a Collegial Conversation Following Podcast Listening and Reflection for Professional Development?

As previously stated, the secondary educators who engaged in this study were from a variety of content areas and grade levels spanning sixth through 12th grades. While three separate collegial conversations took place, two consistent themes emerged surrounding their experiences with participating in conversations with colleagues who were not from their same schools and districts following educational podcast listening and jot journal reflection writing. These themes were (1) Purposeful Interaction among

Teachers and Support among Teachers and (2) Accommodation and Pliancy of the Professional Learning Experience.

Theme 1: Purposeful Interaction and Support among Teachers

The first theme that emerged related to Research Question 2 was a general feeling of purposeful interactivity and support from the colleagues with whom participants conversed and shared their ideas after listening to the assigned educational podcast and creating jot journal annotations. Participant B stated in the one-on-one interview that,

to hear people talk about the ways that they can use this engagement and empowerment and that the benefits of letting students ... be an authentic part of assessment, I feel like it allowed me to kind of see things broader outside of just my [specific content area] world.

Participant B later reiterated the importance of the opportunity to connect and interact with other educators. Participant B went on to say,

I definitely enjoyed the conversation ... I feel like everybody just kept giving different bits of information, so it flowed really well ... It was a great conversation. I think we all were kind of piggybacking on each other in different things ... you really allowed us to collaborate with others not in the same school.

Several other participants also found the collaborative nature of the collegial conversation a powerful addition to professional learning. The provision that the collegial conversation provided purposeful interaction from colleagues was reiterated by Participant C's interview comments that stated,

The collegial conversation made a difference because a lot of people had

perspectives that I maybe didn't have. They had ideas of things that I didn't have. And so it was kind of like it was a give and take kind of thing ... I think that's the way to definitely process it. It's a great way to process it.

Participant C, like Participant B in the above example, further expounded how useful the conversation was for professional growth. Participant C went on to share that,

The collegial ... benefitted me more than anything else because, even if I hadn't listened to the podcast, they had great ideas ... I'm totally one hundred percent [specific content area] tunnel vision, and they're not necessarily. And it was nice to have ... different perspectives; some of the best things I've ever learned have been from teaches that are not in my discipline ... the collegial conversation was the thing that sealed everything in my mind the best.

There were other participants who also discussed how the collegial conversation enhanced the professional development experience. Participant F stated, "I really enjoyed listening to what other people got out of it. I always like talking to other teachers just about, like, their experiences or what they got from it [because] it gives me ideas."

Participant F later had a particularly excited reaction to some information shared during the collegial conversation about the use of videos and peer and self-assessments for animal dissections. This conversation had originally been shared by a participant in the first collegial conversation, and I (as the conversation facilitator) made mention of it during the second collegial conversation as an example of how others had previously shared ideas for implementation. Participant F had taken hold of the shared idea, and in the interview later explained, "You were able to share about self-assessment for ... an

anatomy dissection. I was like, ‘HA! Bingo! Totally can do that next semester!’”

Participant F’s energy for the information from the shared content was palpable and defined purposeful interactivity and support that emerged from the conversation among fellow teachers.

The benefits of sharing ideas with secondary educators from other grade levels, content areas, schools, and districts were a continuous theme throughout individual interviews as other participants shared their experiences with the collegial conversation.

Participant G expressed that,

It was really cool to hear from people from different school and different levels, different subjects, you know, because we barely have time at the [secondary] level to even meet with people that do teach the same things we do, so you definitely don’t have time to meet with people outside of your area. So that was really refreshing ... to see how the ideas could apply to any subject because, of course, I was just thinking about this as a [specific content area] teacher.

Another participant shared a similar viewpoint in a later individual interview.

Participant I merged two of the prior purposeful interactions (processing and sharing outside of assigned content area) and explained their usefulness as a part of one’s professional development by saying, “ ... this conversation allowed for a really efficient, productive ... opportunity for me to process my thinking, to hear what others had to say, and especially draw on perspectives that were outside of my realm.” Later in the interview, Participant I continued to explain the effect of the collegial conversation on the professional learning experienced:

That conversation kind of shifted my thought process ... so it just helped me consider it beyond my little tiny, very small, narrow range ... hearing what they had to say just started some wheel spinning in my head about ... how it would expand ... my thinking about it expanded across other content areas ... like all these little synapses were firing though the course of the conversation and then afterward because—because it was a conversation; there was a chance for me to process it. It didn't just end because I "closed the book." It was still ... the wheels were still spinning afterwards.

While idea sharing and thought processing were thoroughly discussed by several participants as professional learning experience within this professional development event, other participants mentioned the benefits they experiences as active listeners in the conversations. Not all of the participants in this study were particularly extroverted people who readily engage in discussions and conversations with others with whom they had just met. Their personalities were as varied as the subject matter, grade levels, and locations in which they teach. Some were loquacious and did not shy away from speaking to the group as whole; others felt more comfortable as listeners for portions of the conversations, but they still contributed valuable information both to the conversations and to the data in their interviews.

Participant F was a member of the study who felt more comfortable with the listening aspect of the collegial conversation. Participant F expressed that listening prior to sharing allowed for building confidence: "I'm not always ... one to be like, 'Oh, I have a, you know ...' but after listening to a couple of people, I'm like, 'OK, I'm not

completely off.’ So I felt more comfortable sharing after I heard other people.” This sentiment concerning comfortability levels during the collegial conversation were also shared by other participants. Participant H explained, “You know, as uncomfortable as I am talking to my peers, I get a lot of it listening to them, and then eventually I will talk.”

Yet another study participant, Participant L, shared that, like Participant H, a discomfort with the collegial conversation was initially experienced because, “it’s almost one of those, like, intimidating things where I like to share my ideas. Sometimes it’s nerve wracking, though, because you don’t know how are other people—that have more experience—going to react.” Despite a feeling of discomfort, Participant L was nonetheless still able to feel an experience of purposeful interaction and support from colleagues in saying, “I really liked it because it was a chance to share my ideas but also hear other people’s ideas” and later, “we’re supposed to be learning from each other.”

There were other portions from separate interviews with study participants that revealed comparable findings in initial reactions to engaging in conversations with unknown collegial peers. The interview with Participant J revealed similar findings concerning Participant J’s experience with purposeful interaction and support among colleagues:

So I think once we got started and, you know, I heard everybody’s input on things, I think it became more comfortable to talk about what you learned because ... we’re all teachers, are all doing this together and learning the same thing. So hearing from other people and then putting in things that I learned, my perspective of the professional development, I enjoyed doing also.

This provided ample evidence that both talking and active listening were important aspects of the experience secondary educators had with the collegial conversation portion of the professional development.

No matter the level of participation, from those who shared freely to those who harbored feelings of reluctance, a sense of purposeful interaction was expressed by almost all participants. Participant D shared that the experience went beyond the conversation and back to personal colleagues later due to its having such a powerful impact upon professional learning:

Then hearing everyone else, you know, then changing my mindset and saying ‘it’s about me and what I took from it, and I can participate and contribute.’ And then hearing everyone else—oh my goodness. And I loved it. And I loved that there was a fellow [specific content area] teacher that shared ideas for how [the teacher] implements something like peer assessments or self assessments. I mean, I just loved it, and I loved it so much that I came back to school, and I said to [colleague], ‘You will never guess ... this is what I did, and these are the things that I got—so many great ideas.

There were still more participants who made comment about the way purposeful interactivity with fellow educators positively influenced professional learning. Participant I further echoed the shared sentiments concerning how the experience influenced feelings of purposeful interaction among teachers:

I have come to realize that I have to talk things out in order for them to have meaning in my life, and I appreciate the opportunity to kind of go on that journey

again through my own thought process through hearing what others say and gathering that input and feedback from them, and I feel like ... again, it's that whole concept of 'we don't exist in a vacuum; we are not siloed—well, we are a lot of times—and so we have to seek those experiences to take us out of our silos because I am only one small brain, and I need to make my brain bigger by working with other people.

The effect that purposeful interaction with colleagues and support from them that was shared by Participant I served to further explain how professional learning can be more positively influential upon one's practice so that overall teacher growth and development may be achieved.

Though statements were made during the conversation and individual interviews that guided the creation of this theme, observations and reflections made during the conversation by me as the researcher/facilitator were also important to note in their relation to the interaction and support that existed among the teachers in this study. One way was through the quick responses that several participants exhibited during the collegial exchanges. In the beginning stages of the conversation, there had been lulls when I as the facilitator had to practice wait time because the participants had seemed reluctant in their initial sharing. However, as the conversation blossomed, participants began speaking readily in response.

One example of this readiness in responding was noted as Participant D discussed the use of the transcript while listening to the educational podcast. Immediately after Participant D concluded, I noted that, "Participant I 'jumped in fast' to comment and talk

about what Participant B had shared a few minutes earlier. A little while later, I noted, “Participant H jumps in quickly when given the chance to respond to Participant I.” These ready response patterns continued at least seven other noted times, with several participants seeming to build onto what their colleagues had said during the conversation.

Readiness in response within conversation was also noted in the second and third collegial conversations. The second collegial conversation, like the first, had started with necessary wait time as the participants became more comfortable sharing with each other. I noted that Participant J “immediately jumps in about [specific content area]” in agreement with what Participant E had previously stated. I later noted that after Participant J discussed the “metacognitive piece that goes beyond engagement to empowerment,” Participant E “immediately speaks about immediate employment of an idea from the podcast.”

The rapid response times also continued in the third collegial conversation. Participants L and K shared a great deal of back-and-forth conversation based upon the comments shared. After Participant L discussed “peer grading” and methods for creating an environment conducive to peer grading, Participant K “[jumped] in immediately” to relate “an ADEPT [Assisting, Developing, and Evaluating Professional Teaching] evaluation for setting expectations and another aspect that must be considered with student maturity.” The rapidity these shared responses was observed four other times during the course of the conversation.

It was clear through the individual interviews with the participants that several of them experienced purposeful interaction and support among their peers that enhanced the

professional learning experience. Beyond sharing ideas, several participants reported a broadening of their perspective. In some cases, this was beyond their grade level, and in others cases, it went beyond their content area. However, several participants gained greater insight because they were offered a new way to process their learning, and the experience of the purposeful interactivity with fellow teachers deepened their professional learning engagement.

Along with the quickness of responses and a perceived excitement among the participants to build upon what one another had shared, other observations were made that expressed the theme of Purposeful Interaction and Support among Teachers. In the first collegial conversation, I noted smiles from participants as their colleagues shared their thoughts and the nodding of heads as individuals heard discussion points from the podcast that they had shared similar thoughts on.

Within the conversations, several participants also made concessions within their learning or asked for assistance in thinking ideas through. In one instance, Participant I said, “hearing you guys and looking back over my notes, I think I did leave more room open for it to work with some pretty focused parameters,” which explained how the collegial conversation helped clarify thinking. Later in that same conversation, Participant D was observed expressing a desire for students to perform a “video diary of the dissections” then giving peer feedback as mentioned in the conversation by Participant C. Participant D wanted to figure out how to have students use the videos to generate the desired feedback. Immediately following that notation, Participant C was observed “[explaining] how to have them tell what not to do.” A desire to create a new

learning experience for students was expressed by Participant D, and Participant C helped to support that creation by offering suggestions and advice for implementation.

Purposeful Interaction and Support among Teachers was an evident theme for Research Question 2 because it showed how willing participants were to work with one another during their separate collegial conversations to expand ideas that resulted from the initial educational podcast listening and jot journaling experience. This was discovered through analyzing individual interviews as well as through analyzing notes, observations, and reflections made during and after the three separate collegial conversations. Not only did teachers offer new ideas to colleagues, but also they encouraged them with positive facial expressions and reinforced confidence with implementing new teaching ideas within their practice.

Theme 2: Accommodation and Pliancy of the Professional Learning Experience

While flexibility and convenience of the professional development experience were discovered as themes that emerged for Research Question 1, a similar inclination was also found and noted as part of observations during the collegial conversations. This provided support for a theme that expressed that the professional development experience accommodated for the needs of the participants and offered pliancy for how they chose to participate. Though these were not necessarily verbally confirmed during the conversations, my observations via Zoom video of the physical spaces in which the participants were located guided my annotations and reflections for the ways in which they had engaged with their peers.

Allowing participants to choose their physical location to take part in this portion

of the professional learning experience was accommodating of their needs and offered pliancy and choice in how and where they wished to engage. Participant I was able to join the first collegial conversation while driving home from work and then continued a portion of the discussion while at home. In my observations, I noted that several participants had chosen to participate from home, at school, or while in transit. While two participants' locations were unknown (one was using the chat feature from Zoom and was off camera, and the other was using a background screen that did not divulge the location), three other participants were able to take part in the collegial conversation from home (or while driving home), and one elected to join from school before leaving for the afternoon. Even the opportunity to choose the chat feature and a background display were accommodating and offered pliancy. These options allowed participants to engage in ways that provided them with more personal comfort and anonymity.

This trend continued in the other two collegial conversations as well. During the second collegial conversation, Participant E was also home and was able to attend to a young child as needed while participating in the conversation. Participant F also appeared to be participating from home. Participants G and J, however, seemed to have chosen to remain in their classrooms or school offices for the duration of the conversation.

Likewise in collegial conversation three, one participant interacted using the mobile Zoom application on a cell phone while transporting personal children to and from afterschool extracurricular activities. The two other members of that final conversation participated from home rather than at school, as noted in my observations and reflections taken during and following each conversation. While this was not

necessarily an overt part of any of the discussions, the observations were important ones to note, especially considering some comments concerning the feedback that was received during individual interviews.

Evidence that several participants found the collegial conversation accommodating and responsive to their needs as professionals (both personal and professional) included comments concerning the use of virtual means of communication. Participant A stated, “the virtual works really well.” Participant A went on to say that the option to communicate virtually also provided a “convenient way to talk with people that you normally wouldn’t talk to.” Participant B also emphasized this point saying, “I think that is the most beneficial because ... you’re getting out of comfort zone of just your colleagues that you’re always with daily.”

Participant D was able to summarize the level with which teacher needs were accommodated for throughout the entire professional learning experience:

I overall ... think it was ... transformational. Basically it is a different form of PD [professional development] ... We are at a point in, I think, education where we are going to shift from things that are not traditional, and I think that the podcast and the jot journaling and the ... collaboration, like on Zoom, I just think it’s moving in such a really good direction that it’s ... innovative, and I just love that because ... it’s just not what it used to be, and it doesn’t need to. We need to be moving forward and shifting ... our focus to things that are not what they used to look like.

Overall, based on the observations and reflections made from the three collegial

conversations and the candid answers given during the individual participant interviews, it was clear that the participants' personal and professional needs had been accommodated during the professional development experience. It was also clear that the experience offered each participant a great deal of pliancy in terms of the ways in which they chose to engage. Participants were able to choose the circumstances with which they engaged with others, and this made an impression upon them.

While the 13 participants in this study were from varied grade levels and content areas, similarities within their experiences concerning the collegial conversations that took place following educational podcast listening and jot journaling could be noted. The first of these was the emergent theme of "Purposeful Interaction and Support among Teachers." Participating educators shared freely with one another and bolstered one another's practices and ideas. The second emerging theme was the "Accommodation and Pliancy of the Professional Learning Experience." Observations and commentary showed a preference for choices in how and where conversation engagements took place. These provided additional options for the educational professionals concerning how they controlled their own learning experience.

Research Question 3: What Lesson Plan Designs or Recommendations Emerged from Secondary Educators' Collegial Conversation Following Podcast Listening and Reflection?

For the third and final Research Question, three themes emerged from the three sets of data collected. These themes were identified by triangulating the comments made during the collegial conversation, the information shared within personal interview, and

the jots made within individual jot journal reflections. Through an analysis of these, several lesson plan designs or recommendations could be recognized and followed for their commonalities. These three themes are (1) Peer Collaboration for Classroom Learners, (2) Self-Assessment for Individual Student Reflection, and (3) Self-Assessment for Independent Student Growth.

Theme 1: Peer Collaboration for Classroom Learners

The first theme that materialized as data from the triangulation of the three data sources were analyzed (interviews, jot journals, and collegial conversations) relating to the emergence of lesson plan designs or recommendations was the concept of peer collaboration for classroom learners. Several teachers shared in their interviews that both the podcast they listened to and reflected upon in their associated jot journals and the subsequent collegial conversation led them to considering more tangible ways of implementing peer collaboration into classroom learning. Participant D made intentional notations concerning peer collaboration as a formative assessment practice in the assigned jot journal. This participant first wrote, “What are the guidelines for self/peer assessment?” Later a bulleted list was formulated for ideas generated for peer-assessment models. The list read as follows: “20 min. peer feedback, structured feedback with sentence stems, 3-2-1 (3 strengths, 2 areas of improvement, one question), feedback carousel, open-ended peer coaching.”

Other participants also included annotations for peer collaboration strategies in their jot journals. Participant F listed “vital collaborative skills” as the fifth in a list of benefits based on the notes taken from the podcast. Participant I made a similar

annotation and also discussed the necessity of peer collaboration in the classroom through jotted notes that included the following: “Builds successful collaborators. Can learn intellectual humility. Can learn how to give and receive feedback.” Participant J further noted information of importance from the podcast related to peer collaboration. The annotation, “Success in collaboration and ‘timeless skills’ like communication” was included as part of Participant J’s notes taken for reasons to include student ownership of assessment.

Within individual interviews, several participants revealed the thinking and plans behind some of their jot annotations as well as thinking that occurred concerning peer collaboration as a result of the conversation with their secondary colleagues. Participant D expressed a desire to use peer feedback because it was so highly emphasized in the podcast: “I have plans to teach them because it is big on teaching them peer ... like peer collaboration just in general ... but teaching them how to give each other feedback and things like that.” The focus on teaching students how to properly deliver and receive feedback was a consideration and teaching concern that Participant B had as well. Participant B stated, “That would be a little more for my students where I’d have to just make sure that we were all on the same page and had a little ... some guidelines ... for the pure feedback.”

Several participants reported that they had existing lesson and unit plans that were further developed and modified after their professional development experience. Participant E, Participant I, and Participant K explained plans they already had for using peer collaboration in future classroom activities and learning experiences. Participant E

said that in the future, one way that peer collaboration will take place will be in “having [students] analyze and critique the way their classmates annotate and analyze a text.”

Another participant, Participant I, considered methods for peer collaboration inclusion within the classroom in ways that provided ownership tempered with safeguards. In that interview, Participant I explained,

I was able to, like, come around to his [the podcaster’s] way of thinking with balance and keeping in mind, like, how I would actually put this into play and that, you know, it doesn’t have to be so big and grand and so all-encompassing ... that it can be, you know, done in small segments or really focused, intentional moments and not, you know, completely giving all the evaluation over to students but empowering them to self-evaluate through peer evaluating.

Participant K stated that plans for a specific class to include peer collaboration for learners through formative assessment measures. Participant K explained that the students within this class already have an assignment they are working to complete. However, since the professional development experience, Participant K elected to include peer collaboration as an aspect of that assignment that would guide students toward revision and improvement:

Their class is one that I would use self and peer evaluation for ... they’re working on their first [specific content area assignment], and after fall break, they’re going to have to present part of their [assignment] to their peers, and I am going to make the peers do critiques of each other.

While several participants ruminated the use of peer collaboration through

detailed annotations in jot journals, and others shared verbally the plans they had made concerning the information they had learned from the podcast and discussed with colleagues during the professional learning experience, Participant M remained particularly thoughtful on the subject. Participant M taught virtual classes, and in both the jot journal and in the interview indicated a desire to implement peer collaboration but a reluctance due to the restrictions that virtual learning can sometimes impose.

In the jot journal, Participant M initially annotated “Concerns” and under this heading the following: “peer work is a task I’m having trouble navigating (virtual world).” Later in the individual interview, Participant M expounded the dilemma:

I’m navigating the virtual work now, which is different. So, for me, I think that having those peer conversations, or the peer checks is a little bit something that ... I’m not sure of how you would navigate that in a virtual setting because the activity level ... the interaction between the students is not as much as it was in a brick and mortar. So while we are doing more ... checking ... more ... activities, more things of that nature, of them asking me question and answers sessions, I don’t think there’s any students having those student conversation; so having them do, like, peer reviews or peer checks—unless I had about 15 breakout rooms and put two in each one, which is a possibility—I’m not sure how to navigate that yet, and that might be just because I’m a first-year virtual teacher, but that’s just something that I had written down as kind of, you know, not sure how I could use that in the virtual setting.

It was evident from the jot journals and the interviews that the content from the

podcast participants listened to, annotated, and later discussed made an impression. Some participants were still in the consideration stages for collaborative peer interactions in the classroom. Others recognized a space for this type of collaborative peer work in existing lessons and units and had begun intentionally including them as part of classroom learning.

Theme 2: Self-Assessment for Individual Student Reflection

A second theme that resulted from the professional development experience these participants engaged in was also related to Research Question 3. It continued to answer the question as to whether lesson designs or recommendations occurred following educational podcast listening, jot journal reflection, and collegial conversation. The second emerging theme was the idea of using self-assessments as a mode of individual student reflection in classroom and/or learning activities.

The first data point that indicated participants wanted to use this information aspect from the education podcast they had listened to was in the second collegial conversation. Participant E shared in that conversation that an immediate interest had arisen during the podcast listening experience to imbed a self-reflection within an existing student project: “Now there’s a reflection Google Form attached to their project directions that they kind of assess themselves following their rubric, and they kind of have more tools to decide if they’re done, or if it’s good or not.” Participant E later reported in that same collegial conversation that the students had already made use of the reflection tool newly introduced in that project and that, “[students] went back, and they, like, made changes, and it was exciting.”

The use of self-assessment as a means to create student reflection did not flourish in one collegial conversation alone. In fact, later in the third collegial conversation, Participant K explained a potential plan that was being considered in order to teach students to attend to the needs of a certain project rubric:

I might stop with the next [specific content assignment] and let them do—‘Ok before you turn this in, I’m going to have you do your own self-assessment and grade yourself for yourself’ and highlight ... ‘Where’s your thesis, where’s your insight, where’s your textual evidence?’ and have them do an evaluation. That way, they know the rubric that they’re using for my class.

Though the above examples were discussed as part of two collegial conversations, lesson plans and recommendations were not limited to those collegial exchanges. Plans for the implementation were not simply shared during the collegial conversation with colleagues, however; some were discussed within individual interviews and were sometimes the results of the virtual conversation among their secondary peers. For example, Participant D had listened to another participant from the same content area discuss the use of videos and assessments as a way to teach students how to improve their performances of a content-specific task in the first collegial conversation. Later in the one-on-one interview, Participant D stated, “I definitely, whenever I get into [specific content area] next semester, I definitely love the video idea and want to implement that, as far as, you know, providing assessment in that way.”

This idea was later shared beyond the first collegial conversation. When I acted as facilitator during the second collegial conversation, I explained the use of video

Participant C had discussed in the first collegial conversation. I shared this information as facilitator only because Participant C had volunteered it in the first collegial conversation, and if the participants from the second collegial conversation been able to join at that time, they would have heard it. Participant F was intrigued by this inclusion and later referenced Participant C's idea in the individual interview:

But I got excited about some of the things, like, I could try in [specific content area] when you shared the self-assessment and the [specific content assignment] because we [perform the specific content assignment], like, 4 times in that class, so ... I can do that.

In another one-on-one interview, Participant H revealed revisions that were made to an existing project based upon the provided podcast information. Participant H explained,

I kind of redid it from what I had—hadn't given it to them yet—but I redid it. I included the proposal, in the proposal they ... get to choose which creative project they want to do ... they think about their plan of action: 'How am I going to do this?' They think about their timeline. They think about 'What am I good at? What are my weaknesses? How am I going to integrate those? How am I going to make this work with those?' They even ask why they chose it and then throughout the process ... we'll have a—I just call them check-ins, but just to see where they are—if they need to re-evaluate: 'Do you need to change anything at this point? Is it different than what you thought?' And then at the very end, they're going to have a self-reflection, which—because it's sort of like a self-assessment—to see

... how did it go? ‘Did I wait till the last minute, and was I ... doing what I’m supposed to be doing? Was it harder than I thought it was? Easier than I thought it was? Was the final product what I wanted it to be?’

Participant H used the information learned from the podcast listening experience to make the existing project one that was more dependent upon student self-assessment to guide learning and thinking and to have them reflect upon their next steps and outcomes.

The collegial conversations and individual interviews provided a wealth of data concerning lessons plan designs or recommendations that resulted from this professional development experience, but annotations jotted in the participants’ journals also showed how the podcast listening had influenced their thinking even before the conversations began with secondary peers. While jotting, Participant A wrote a heading that said, “Initial thought/questions at the outset of the podcast:” At bullet point three under this heading, “Reflecting more on the process vs. the result” was annotated. Similarly, Participant B had annotated, “Reflect on learning/adjust approach (cycle)” under a portion annotated that read, “help kids learn to prepare themselves for anything, self-managers, anticipate change, lifelong learners, self starters, think @thinking, ADJUST STRATEGIES—EMPOWER THEM.” Furthermore, Participant B reiterated the need for self-reflection coupled with peer collaboration through the annotation “→ reflect and adjust (peers also).”

The importance that several other participants found for the concept self-reflection as it was presented in the educational podcast continued with further jot journal annotations. Participant D bulleted “Goal setting→ set goals, plan approach, keep track of

progress.” Below it “Self Assessments:” was titled and underlined as a heading, and underneath the following bullet points were recorded: “Goal Setting, Self-Reflections, Student Survey ([Multiple] Choice, check boxes, Likert Scales), Self-Assessment rubric—emerging→ mastering, Checklists.” At the bottom of the journal, boxed in bright pink highlighter was the annotation: TRY WITH: Binder Checks, Checking FNT” (which stands for Focused Note Taking).

Another participant also made similar focuses annotations related to this theme. Participant G recognized the importance of the self-reflection concept as it was expounded in the podcast. In Participant G’s jot journal, related self- reflection (with another linked in one to peer collaboration) annotations included, “→ Empowering them to own the assessment (self-assess during sports/music→ goals) → in the confines of community (peer reflection) → Track progress and set goals.”

In yet another jot journal, Participant H made similar notes. Participant H consistently noted these same ideas by journaling:

First thought on self-assessment: setting goals, planning your approach, and tracking your progress are things we all do at work and even in our off-work hobbies (for example, an exercise routine or a to-read list). It makes sense to use a real-world application in the classroom.

The concept of goal setting was further discussed by Participants I and K. Participant I focused on the concept of goal setting as a part of student reflection and its potential for learners: “What they want to master (their goals), What they will do to improve (action plan).” Finally, Participant K also noted under a “Designing [A]uthentic

[A]ssessment” heading, the following information was relevant: “goal setting, set goals, self-assessment, process, and products.”

The concept of using self-assessments for student reflection as explained in the educational podcast proved to be one that the study’s participants found thought-provoking. The jot journal annotations, the remarks made and comments shared in the collegial conversation, and the discussions for applicability within individual interviews showed a marked impression made during the professional learning experience. It was an important second theme that displayed a high level of importance among the participants as part of this professional development as related to Research Question 3.

Theme 3: Self-Assessment for Independent Student Growth

A third and final theme that resulted from the professional development experience these participants engaged in was also related to Research Question 3. It concluded in answering the question as to whether lesson designs or recommendations occurred following educational podcast listening, jot journal reflection, and collegial conversation. The third emerging theme was the idea of using self-assessments as a mode of independent student growth in classroom and/or learning activities.

Data were first provided for this theme during the second collegial conversation that took place. During this discussion, several participants made comments concerning how the use of self-assessments provide opportunities for students to independently grow in numerous ways. For instance, Participant E stated, “They do always need to know time management and ... assess their progress and things like that.” Along similar lines, Participant J shared these thoughts:

So that really struck a chord with me when [the podcaster John Spencer] talked about [life], transferable, and essential skills that can be used in any context, not just ... learning English or ... learning playing a musical instrument, but, like, the communication aspect, the leadership aspect, and ... the social skills asked whether they learn from, you know, teaching the student to learn how to assess.

During this same collegial conversation, Participant J continued to add thoughts concerning the use of self-assessment as a means to aid student in their own independent growth. Participant J later commented,

Students give a lot of really good ideas--probably ideas that I haven't thought about or of other students haven't heard before--and then of course, growing from it, we're going to adjust those strategies as we need to so they can, you know, continue to grow from that and get better from it.

A final point was later discussed in the second collegial conversation that further supported the concept of using self-assessment to increase independent student growth. Participant J concluded a statement on the use of self-assessment for student growth by stating, "I would also say that self-assessment and peer assessment also probably helps others take constructive criticism more easily." It was clear that participants considered student growth as an overall concept and did not delineate it to one content area alone.

The third collegial conversation revealed similar thinking as it related to lesson planning and recommendations. A few participants from this conversation also recognized that self-assessment could be used independent student growth in several ways beyond a specific content area; growth would be in overall maturity and in personal

metacognition. For example, Participant K explained, “I liked the fact that ... would be something that they could do themselves to take ownership.” Another statement Participant K made during that conversation expanded the idea: “I like the whole empowerment aspect ... and the fact that it does give them empowerment.”

While the discussions during two collegial conversations did support this theme, one-on-one interviews revealed more individualized participant considerations for lesson planning pertaining to the theme of self-assessment for independent student growth. Participant A referenced the concept of student ownership by saying, “I love the idea ... of students taking more ownership of assessments, being an active part of the process.” Another participant, Participant B, continued in this vein of thought in terms of lifelong learning:

I found that everything people were saying, it was more relevant to their learning, to their lifelong learning. And I feel like, too, it validated the self-awareness of the student where they're aware ... of where they were, but they were part of the learning process, and they—the students—would get excited about it, so the teacher could get excited about it ... I think it's just the whole idea of this self-awareness helps not only with the pure academic skills but also with the transition skills. So I just feel everything just kind of flowed together ... This whole experience made me realize how true our students are lifelong learners.

These kinds of independent student growth means are not measurable through testing or within the content. However, they are vital aspects of student development. Each one is a consideration beyond contextual knowledge that teachers chose to include within student

work because of the growth potential provided.

The data collected from jot journal annotations provided further thematic evidence that served to answer Research Question 3 and ways in which several participants were inspired in their practice based on information provided from the podcast listening portion of the professional development experience. For instance, Participant B in particular wrote: “growth to ownership” and to the side annotated what appeared to be ideas that might be used to develop this skill. These annotations included “job [interview], resumé, money, job kits.”

There were other participants who included ideas for elevating student growth in jot journal annotations. Participant D had created a heading entitled “Self-Assessments” and bulleted underneath were written “self-assessment rubric, emerging→mastering, checklists.” More annotations that marked the text were included. Participant D also placed an asterisk next to then annotation “Improve Metacognition” to signify another aspect of student growth that would be affected through the use of self-assessments. Participant F also annotated that one of the “benefits” of self-assessments was “students, improve metacognition.” Participant G also annotated under the label “Self-Assessment” that students “grew in awareness and cognition.” Participant G annotated questions to the side of this, noting the following: “Know? Don’t Know? Do Next?” Later, Participant G wrote, “Metacognition [and] managing/owning their own learning →We need to prepare them to adapt to any job skills needed (to plan, assess their strengths/weaknesses.” The improvement of metacognition and having students to think about their own thinking and learning processes was noted within more jot journals as well.

The metacognitive piece as a part of student growth was also included in Participant H's jot journal, and it was further explained in a detailed annotation:

Metacognition seems like the key to it all, and [the podcaster] says it's invisible. It is definitely how I, as an adult, tackle more tasks. I've never thought *this is metacognition*, though. Would love practical ways to implement this in the classroom. Tried started a [specific content area] unit creative project with a proposal to plan/strategize before beginning. Have begun having students look at tasks as a big picture before beginning: assessing the task at hand, evaluating strengths and weaknesses, planning their approach, applying strategies, reflecting.

Another participant (Participant I) also annotated information regarding metacognition. Participant I pinpointed the metacognitive aspect as a part of using self-assessments for student growth. In Participant I's jot journal was the following annotation: "students improve in their metacognition ... 1. Assess the project, 2. Evaluate their skills, 3. Plan their approach, 4. Take Action." Similarly, Participant J noted that, "Students grow in self-awareness in metacognition into self-directed learners" and later in the jot journal went on to write the following:

Strong metacognition skills help student[s] anticipate change and navigate complexity. Lifelong learners need to know how to own their learning. Think about thinking. Self-directed learners – learn to assess the demands of the task, evaluate their knowledge and skills, monitor progress, and adjust strategies as needed.

The idea of students using metacognitive strategies for student growth as a result

of self-assessment continued as a major theme in jot journals for more of the participants as well. As part of Participant K's jot journal, "They are more aware of their learning" was an annotation made in reference to metacognition. Participant K later pinpointed this by jotting "When self and peer assessment [are] used in combination, it is a more complete process ... students improve in their metacognition." Finally, Participant M echoed the concept of student growth through self-assessment in jotting, "Learners feel more empowered and in charge of their own learning. Students own their own assessment. [Students are] more focused and committed."

As with the use of self-assessments for student reflection, the idea of using self-assessments for student growth as it was detailed in the educational podcast was one the study's participants found worthy of note. The comments made during two of the three collegial conversations, the information provided within individual interviews, and the annotations made within participants' jot journals provided insight concerning the relevance this topic had for participants during their professional learning experience. It was a final theme that displayed a great deal of importance to participants as a part of enhancing their teaching practices and growing units and lessons for their learners as it related to Research Question 3.

Summary

The chapter focused on the results of the information found during the research. The three research questions were reviewed, and the settings for the study were explained. The demographics of the participants were provided as well. The methods by which data were collected was explained as were the ways in which data have been coded

and analyzed. Furthermore, evidence for trustworthiness was offered to provide assurance for the relevance and reliability of the research.

Research Question 1 focused on describing and understanding the professional learning experiences of secondary educators who participated in educational podcast listening and reflection for professional development. Based on the themes that emerged, participants experienced autonomy through the learning provisions that were offered. They also experienced meaningful personal connectivity with the learned content and their secondary colleagues. Finally, participants reported that they had overall needs for other modes by which to capture and share the ideas they had from listening to the podcast beyond reflection through the jot journal.

Research Question 2 focused on describing and understanding the professional learning experiences of secondary educators who participated in a collegial conversation following podcast listening and reflection for professional development. The themes that emerged as a result of the data analysis showed that participants experienced purposeful interaction and support from their fellow teachers and that they found the professional development experience to be accommodating of their professional needs and pliant in order to meet their individual circumstances as adult educational learners.

Research Question 3 focused on describing the lesson plan designs or recommendations that emerged from secondary educators' collegial conversation following educational podcast listening and reflection. The resulting lesson plan designs and recommendations delineated into three separate themes. These were peer collaborations for classroom learners, self-assessment for individual student reflection,

and self-assessment for independent student growth.

In Chapter 4, I have presented by data analysis and findings for each of my research questions. In the next chapter, I explain how the findings from this study coincide with the research provided within my literature review and present my conclusions as well discuss the study's limitation. . Also, in Chapter 5, I consider my study's limitations and make recommendations for expanded research in this area. Finally, I provide the implications that this study suggests and discuss ideas for the ways in which this study might influence positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this qualitative case study research was to discover themes shared by the participants—through jot journals, in observational notes and reflections, and within individual interviews—that would describe reasons for teacher acceptance or rejection of a new form of professional development. This method involved the use of educational podcast listening, jot journal reflection, and the participation in a collegial conversation as an innovative method for professional learning. Furthermore, through this research I hoped to uncover participant commentary that would suggest a number of new ideas or lesson plan designs resulting from their professional learning experience, either through listening to the podcast, reflecting upon their own practices with new information in mind via jot journaling, or while conversing with colleagues in a discussion setting.

The implications of this research better inform school and district leaders of the promise with which this form of professional development might influence their teachers' professional learning and growth. It will provide new ways for teachers to professionally develop their practice and generate better learning outcomes for the students in their classrooms. It will also provide voice and choice to teachers in determining what they deem to be meaningful professional development and in selecting how they wish to engage with information to be learned and with their colleagues and administrators.

Interpretations of the Findings

The purpose of this section is to explain how the findings from my research corroborate, refute, or expand the information related to the topic of professional learning as compared with the findings from other peer-reviewed literature discussed in Chapter 2.

My findings will also be analyzed and interpreted in terms of how they relate to the theoretical framework used to ground this study. The first of these was the cognitive learning theory, within which Kretchmar (2021) explained that in order to receive information, learners must be engaged through active participation while working with peers in a meaningful way. The second theory that grounded this research was Gagné's events of instruction as they were described by Islam and Salam (2019). The nine actions that make up the events of instruction include extraction of consciousness, the statement of learning intention, recapitulation of known information, provision of "stimulus material," new directive for learning, recommendation for behavior, provision of feedback, appraisal of success, and next steps planning (Islam & Salam, 2019, p. 553). This theory also insisted that the events must be in the designated order so as to achieve desired efficacy. The final theoretical framework that grounded the research problem was a variant from the technology acceptance model known as the UTAUT because its tenets provided for the understanding for how innovations and new technology were accepted by a specific group. This allowed for the elevation of positive results to be realized as outcomes.

Research Question 1

To determine an answer for Research Question 1, I concentrated on describing the participants' experiences in a professional development session that asked them to participate through educational podcast listening and jot journal reflection. In the next section, I explain how the three themes that emerged relating to this research question authenticated and expanded disciplinary knowledge previously discussed in Chapter 2.

Finally, this section also explains how the themes relate to cognitive learning theory, the events of instruction, and the UTAUT.

Theme 1: Learning Autonomy Provisions

The participants of this study made ample references to the convenience and flexibility offered through this type of professional development. Specifically, participants described appreciating that this portion of the professional development experience was amenable in terms of choice in time and place of engagement, control over reflective jot journals through the podcast transcript as well as the journal's open-ended nature, and the brevity of the assigned educational podcast. This finding is similar to that of other literature explaining that participants enjoyed the use of podcasts as an instructional form and mode of learning and that the use of podcasts for learning were popular options (Blum, 2018; Orakcı, 2021; Patrick et al., 2019). In this study, participants expressed their affinity for an opportunity to use the podcast as a means of frontloading information they would discuss later with others. Seven participants discussed in their interview the choice to select the time and way in which they wanted to engage in podcast listening and appreciated the convenience it offered in allowing them to listen to it in the way of their own personal choosing. In this present study, the provision of choice in podcast listening time and space as well as in reflective practices within the jot journal were appreciated by seven of the study's 13 participants for allowances of autonomy and professional learning control, as shared in one-on-one interviews.

The inclusion of jot journal reflection as part of the professional learning also had

support from the peer-reviewed literature. In prior studies, some researchers have noted reflection as a method of professional learning that offers educators control over what the learning means for their practice (Ayçicek et al., 2019; Clyde, 2022; Denha et al., 2022; Woolway, 2019). For example, researchers found that opportunities for self-reflection allowed teachers a way to apply their own autonomous methods for determining areas of need for professional growth (Woolway, 2019). The reflection jot journals in this study also allowed teachers to reflect in open-ended ways that supported areas they recognized instructional needs.

The outcomes for this portion of the professional development also aligned with results research that determined that effective teachers engage in autonomous reflective practices that guided their quests for professional development that met their needs as experts (Clyde, 2022). The current study provided participants with a means to use jot journals as modes of reflection intentionally. To this end, participants used the podcast transcripts to add jots to their reflection journals and incorporated learned information into existing instructional material in real-time as a means of reflecting and improving classroom practices with immediacy. These practices align with the literature noting that opportunities to engage in reflection aid teachers by elevating their teaching philosophies and practices as well as the mechanisms by which they choose to learn (Denha et al., 2022). The reflective opportunity allows educators a chance to consider their own practices and lesson/unit plans weigh against the information provided in the podcast in order to make changes and improvements that would heighten the opportunity for successful student outcomes (Ayçicek et al., 2019).

The final aspect of this theme concerns the brief nature of the podcast listening experience. Peer-reviewed literature indicated that information intended for experts' professional development should be brief and produced by a trustworthy, knowledgeable leader in the field (Newman et al., 2021). For professional learning to have its greatest efficacy, the podcast sections should last no longer than 15 minutes (Newman et al., 2021). While the present study used a podcast that was a little over 23 minutes, participants appreciated the shortness of the segment, especially as the professional development was also coupled with jot journal reflections and collegial conversation opportunities.

Theme 2: Meaningful Personal Connectivity

The participants in this study were candid about the need for meaningful personal connectivity within professional development. They cited opportunities for learning new ideas and gaining insight for new previously unconsidered perspectives as part of their affinity for the content of the educational podcast. They also discussed an appreciation for the affirmation it provided in established practices already in use within several of their classrooms. Finally, they described both the educational podcast and the associated jot journal as being helpful in providing next-step thinking for their classroom plans and practices concerning student engagement, empowerment and ownership of assignments, and the overall learning process.

Peer-reviewed literature provided data that indicated that at least 75% of podcast listeners do so in an effort to generate understanding of new information (Wise, 2022). Other peer-reviewed literature related to this theme also stated that educators choose to

take part in professional learning experiences like podcasts and associated media to increase their body of instructional knowledge (McNamara, 2019). Similarly, podcasts and the associated reflections provide educators with new understanding for formerly unknown information (Elekaei et al., 2020; McNamara & Haegele, 2020). The participants of this study stated that they were not only able to build upon existing knowledge and felt validation and an affirmation in their current practices, but they also learned new ideas and information that had been unknown or less familiar prior to the listening experience. While the participants in this study do not have a means to measure the efficacy of learning, 12 of the 13 participants self-reported a newfound clarity and understanding for a specific instructional practice based on accompanying annotations via their jot journals. One participant also self-reported developing plans and implementing instructional ideas within an existing unit and in classroom instruction. Four participants self-reported that they were considering how the newly learned information could be implemented into existing units and in future courses.

Theme 3: Modes for Capturing Ideas

While participants were appreciative of the nature of this aspect of professional development, they did express desires for extended modes for capturing ideas during professional development experiences. One way they discussed this was through a desire for a technological component that would provide a means for collecting their takeaways and the takeaways of others. They also expressed an inclination for a method or resource by which they and others might share ideas for lessons, units, rubrics, or checklists that had been devised based upon ideas spawned by the educational podcast and jot journal

reflection. This desire harkened to Krickovic's (2002) findings that the use of lecture-style professional development that was feeble in nature, rather than robust and complete, did not achieve success in developing effective teaching practices. Mirel (2011) also supported this finding because that study found that learning through professional development sessions must go further than the immediate experience; this study found that it was vital for educators to have learning opportunities that extend beyond a 1-time experience and coordinate with the needs of their practice.

MacNamara (2019) further supported the theme for modes of capturing ideas found in this study. In that study, interactions with blog posts were found to have greater interaction from members than the podcasts. While members of the study engaged with the podcasts, they used the corresponding digital resources to go beyond what the podcast had to offer to support their professional learning. The teachers in the present study desired to have the same; they reported that their learning experiences would be strengthened if other digital methods were implemented wherein they could gather and collect ideas from all participants.

O'Connor et al. (2020) found a similar trend in their study. They reported that one outcome of podcast listening to acquire information resulted in participants garnering knowledge and experience. Unexpectedly, however, they learned that another outcome had arisen. Their participants had also engaged in learning strategies beyond the sole use of the podcast; these included examining and annotating information from both in-class presentations and lectures as well as synchronous and asynchronous group discussions of information. In a like manner, the participants of the present study also requested deeper

interaction with the content presented in the podcast in suggestions for Google folders, Flipgrids, Nearpods, or Padlets that could be shared among participants along with jotting in their reflection journals.

There are several ways that these themes showed alignment with the theoretical framework used in this study. First, the act of each participant's podcast listening engagement and accompanying jot journaling and the related outcomes align with the tenets of the cognitive learning theory. Participants reported that the autonomy provided in their choices of where and how to listen and jot support the need for learning through active engagement; in most cases this was through the act of jot journaling while listening or immediately following (Kretchmar, 2021).

Most of Gagné's events of instruction also align with the themes that resulted for Research Question 1. The directions for podcast listening and jot journal reflecting for this professional learning experience made participants aware of the content as well as the purpose for the professional learning experience. The podcast listening portion served to review known information and provide new content, direct learning, and suggest strategies for implement as this was all information provided within the content of the podcast episode. The jot journal reflection provided participants with a means to create a way to develop thoughts and ideas for future considerations for applying learned content within their teaching practice (Islam & Salam, 2019).

Finally, the unified theory of acceptance and use of technology (UTAUT) aligned with this study's outcomes because it resulted in participants experiencing several portions of the expected outcomes that this theory posited that resulted when a specific

technology was accepted for use by practitioners. In the UTAUT, Performance Expectancy and Effort Expectancy both served as indicators as to whether teachers would accept or reject the proposed mode of professional development. The resulting themes for Research Question 1 showed that not only did teachers consider this portion of the professional learning experience supportive of their teaching practice (Performance Expectancy), but also participants did not report difficulties in accessing this portion of the learning (Effort Expectancy). Because the information provided in the educational podcast and the jot journal reflections aided in bolstering their teaching practices, participants in this study appeared to be willing to accept this type of professional development model. Additionally, because participants did not report difficulties accessing the technology or associated resources, the ease of effort also showed a potential willingness for teachers to accept this form of professional development (Venkatesh et al., 2003).

Research Question 2

Research Question 2 focused upon describing the participants' experiences in a professional development session that asked them to engage with colleagues from their same grade level ranges in a shared collegial discussion following educational podcast listening and jot journal reflecting. In the sections that follow I explain the two themes that emerged and the ways they confirmed and expanded peer-reviewed information provided in Chapter 2. This section also provides information concerning the relation of the resulting themes and cognitive learning theory, the events of instruction, and the unified theory of acceptance and use of technology.

Theme 1: Purposeful Interaction and Support Among Teachers

The participants of this study said that the collegial conversation portion of the professional learning experience offered opportunities for purposeful interaction and support with fellow teachers. The nine of the 13 participants described a broadening of their perspectives as they were connected with and experienced interaction with educational colleagues outside of their schools, content areas, and grade levels. Two of the 13 participants also specifically cited increased efficacy in processing, and nine of the 13 participants indicated that sharing ideas through the collegial conversation helped them to clarify learned information (from the podcast and journal).

The resulting theme that explained that participants found the proposed professional learning modal beneficial for developing purposeful interactions with peers and garnering support among teaching colleagues was first supported by Groth et al., (2020). In that study, Groth et al. found that the collective work of teachers in a group setting supported a boost in teacher tenacity and developed collegial dedication to one another. The present study also resulted in similar outcomes. Participants reported an enjoyment for sharing ideas, learning new perspectives, and hearing insights from their conversational colleagues. Many participants explained that the conversation portion was crucial for successful learning because of the interpretations of the podcasting content that could be discussed.

These results also supported the tenets of Professional Learning Communities (PLC) explained by Ong-Art Namwong (2021). That study explained that PLCs worked to develop teachers' collective sense of proprietorship for teaching strategies. This was

evident in the present study as teaching colleagues shared their learning from both the podcast listening experience and their resulting jot journal reflections and built upon that information while creating new connections with their own learning.

The work of Nelimarkka et al. (2021) also supported the emerging theme of Purposeful Interaction and Support among Teachers noted for Research Question 2 as well. Their study found that teachers felt that collegial interactions created more personal meaning due to their genuine, authentic synergy and that teachers felt more assured and connected following collegial communications. The same was found to be true in the present study. Of the 13 participants, 10 self-reported finding value in the conversation with teaching peers and the ways in which information was shared and the conversational flow. While this is approximately 77 percent of the participants, there is no way to gauge the level of value the participants felt, meaning that further research is warranted in this area for more definitive results.

Three other studies supported the theme for Purposeful Interaction and Support among Teachers in that it allowed for stronger information processing to occur. Kostoulas et al.'s (2019) study found indications that its study participants felt they had enhanced their teaching skills through collegial interactivity with 85 percent of participants either agreeing or strongly agreeing that learning from colleagues had advanced their practice. Participants in the present study reported that the opportunity to converse with colleagues after listening to the podcast and reflecting also provided them with a deeper, more efficient way to process the information.

The study conducted by Solheim et al. (2018) provided further credence for this

theme. Their research team found that 41 percent of the participants reported that collaboration with other teachers via group learning assisted the growth of their ideas and elevated their knowledge and instructional practice. However, this might be considered weak evidence since 59 percent did not report that collegial collaboration improved instructional practice. However, the teachers from the present study reported a bolstering of the ideas created as a result of podcasting listening, jot journal reflecting, and collegial conversing. As nine of the 13 participants self-reported that their perspectives had been broaden and their understanding clarified, this resulted in 69 percent claiming to have experienced professional learning. Along with the reception of new perspectives and ideas, the opportunities for applying the previously frontloaded podcast content through a conversation with colleagues coupled with reflections jotted in journals were appreciated as making the learning more meaningful due to the increased processing time.

Finally, the work of Bendtsen et al. (2022) used their analysis of interviews conducted with participants to determine that collaborations among teaching professionals supported on-going commitment in applying the information learned during professional development experiences. In that study, participants were found to have emphasized the necessity of collegial interaction. Similarly, in the present study, many participants reiterated their need to have conversation included in a professional development experience with this design. While most found the podcast to be important, many more claimed that the frontloaded content could be delivered through other measures, but both the jot journal reflections and conversations were deemed cornerstones of the professional learning because of the opportunities it allowed for

processing learning through purposeful and supportive teacher interaction.

Theme 2: Accommodation and Pliancy of the Professional Learning Experience

The participants of this study provided evidence that the collegial conversation portion of this professional learning experience accommodated and provided pliancy for their personal and professional learning needs. Study participants explained that they appreciated having choices in when and how they participated in the collegial conversation. This included selecting times that was most accommodating to engage in the conversation as well as locations for engagement (home, school, in-transit).

As with Research Question 1, which resulted in emerging themes for autonomous learning provisions offered through the use of podcast listening and jot journaling, a similar theme was repeated for Research Question 2. Participants also noted the accommodating nature of the collegial conversation and the choices they had for the ways in which they interacted with colleagues. This was corroborated by the Mirel (2011) study. While the Mirel study found that concentrated most of its findings on the content delivered by professional development sessions, it nonetheless still had an overall outcome that emphasized teacher choice for professional development experiences. This study accentuated the need for teachers to be provided choice in their professional learning engagements. Observations and notes concerning the ways in which participants for the present study interacted with colleagues through the collegial conversation align with this notion. The collegial conversation made accommodations for teachers to interact in a variety of locations and ways. Several chose to remain at their school locations while others either joined from home or through mobile means. As with the

theme for autonomous learning provisions, convenience and flexibility for engagement were discussed as appreciated during participant interviews.

The concept of choice and autonomy is repeated in Barry's (2006) study concerning podcast preferences over that of radio listening. While it does not offer a specific conversational component, it does support thought transactions among podcasters as well as their control in terms of choice of content. Again, this emphasized the theme of the professional development from this study as being seen as both accommodating and pliant by participants. They were offered choice in the time and dates in which they engaged in conversation, and they could select the location and ways in which they engaged. Some elected to use the chat feature offered by the video conferencing resource; others unmuted their microphones and spoke freely. Some had their video cameras on for the duration of the conversation. A few, however, chose to keep their video cameras off. Participants voiced their appreciation for that because it provided those necessary choices for how to engage in learning experiences.

The two themes that were found to emerge from the data collected during the present research continued to show alignment with the cognitive learning theory, Gagné's events of instruction, and the UTAUT. The addition of the collegial conversation as a part of Research Question 2 continued the aspect of the cognitive learning theory that said learners must actively take in information and experience learning by doing. The "doing" in this particular instance was the active participation in the collegial conversation through listening, responding, and discussing. The cognitive learning theory further stated that learning (in this sense, professional learning) would be increased as learners

experienced the application of information through interaction with others in a purposeful way (Kretchmar, 2021).

Gagné's events of instruction were also applicable for these themes. This could be noted in the ways it explained that the introduction of collegial conversation as it was coupled with podcast listening and jot journal reflecting continued to provide learners with ways in which their learning could be directed and the opportunities they had to receive critiques on their ideas in a positive manner. It also included the participants' chances to evaluate (and then re-evaluate) their initial thoughts and ideas, and it offered options for furthering their thoughts on the implementation of learned content (Islam & Salam, 2019).

The application of the theoretical framework of the UTAUT also had alignments with Research Question 2's emergent themes. Not only was Performance Expectancy again supported, as participants showed faith in the growth of their practice through their participation in this professional learning experience, but Social Influence and Facilitating Conditions also aligned. Social Influence could be examined as teachers expressed the support they felt following the collegial interactions they had via the conversation. Furthermore, Facilitating Conditions also showed alignment because participants could experience support for their professional learning during their collegial conversation and expressed a proclivity to continue the engagement through other digital collection sharing resources (Venkatesh et al., 2003).

Research Question 3

Research Question 3 examined the lesson plan designs or recommendations that

emerged as a result of a professional development experience involving educational podcast listening and jot journal reflecting followed by participation in a collegial conversation with teachers of similar grade levels. The following section provides three emerging themes and their relativity to the peer-reviewed information provided in Chapter 2. I also explain how these themes align with the parameters of cognitive learning theory, the events of instruction, and the unified theory of acceptance and use of technology.

Theme 1: Peer Collaboration for Classroom Learners

The participants of this study expressed ideas for introducing more peer collaboration as a result of their experience in this professional development sessions. Participants explained that the professional learning experience provided more tangible ways to implement the ideas and information presented in the podcast into their teaching practices. An overall inclination to teach learners how to give and receive feedback was shared by the participants as well. Furthermore, participants were eager to grow existing classroom structures and lesson plans to provide an inclusion for peer feedback.

In their research concerning the use of an array of predictors for student contentment with group work, Ma et al. (2022) explained the many advantages that students can experience as a result of group work with their peers. These included bolstering skill in considering evidence critically, elevating collaborative capabilities, and strengthening students' potential for learning. Their work included analytical review of digital data (in both visual and auditory form) compared to the content learners reported having during group learning collaborations. After analyzing the data they collected from

partners of 22 middle school learners (44 students in total), researchers concluded that learners who “had shorter head position and body distances from their partners were more likely to receive higher peer satisfaction scores” (Ma et al., 2022, p. 142).

Because of the propensity for peer collaboration to aid in the development of student social and metacognitive skills as well as assist in learning content information, 11 of the 13 participants in the present study seemed eager to note it in their jot journals as a lesson plan or recommendation that resulted from their professional learning experience. These participants show an agreement with the information presented through Ma et al.’s study, in that overall learning would be enhanced through the implementation of peer collaboration. However these participants were less concerned with noting student satisfaction for peer collaboration via “multimodal predictors” than they were with teaching students how to prepare and react to peer feedback in order to increase instructional experiences for learners (Ma et al., 2022, p. 133).

Theme 2: Self-Assessment for Individual Student Reflection

The study’s participants described desires to include more self-assessments for the purpose of individual student reflection as a result of their learning within this professional development experience. Self-assessment for the purposes of student reflection were cited as having potential to elevate students’ desires to improve existing work. Participants also described self-assessment for reflection as a means by which students might learn to better strategize their learning, set learning goals, and plan goal achievement more appropriately.

This idea for a lesson plan or unit recommendation was supported by Flournoy

and Bauman (2021) in their study concerning levels of student learning and program development might be measured through the use of student self-assessment and reflection practices. In this study, researchers posited that student learning would be elevated due to their use of self-assessment of success by employing a method that forced evidentiary proof and reflection. While their data sets were limited due to the small size of the research pool, these researchers used surveys aimed to develop larger patterns when paired with student reflections. They concluded that there was evidence to show that “guided reflections” offered insights for student reasoning behind their learning self-assessments, which enabled the researchers to state that this means of learning was greater than that from conventional institutions (Flournoy & Bauman, 2021, p. 12).

While the previous study was with older university students, Chung, Chen, and Olson (2021) worked with 401 sixth grade students and their writing skills through a mixed methods approach and found evidence that suggested the use of self-assessment and reflective practices following writing redactions resulted in greater student confidence for writing and improved writing skills. Of the 401 students, 131 were a part of the cohort that received the treatment while 83 were a part of a group used for comparison. The researchers explained that the application of self-assessment practices aided the English Language Learners they studied provided learners with a sense of autonomy and assurance of their learning capacities. The study concluded that as student confidence in their own writing agency grew, greater skill in writing was the result. They further found that student confidence could be generated through the application of student “self-assessment, planning, and goal setting, and reflection” (Chung, Chen, &

Olson, 2021, p. 1907).

This same confidence and self-efficacy was the resulting lesson plan idea and recommendation 9 of the 13 of the participants in the present study shared as a takeaway from the professional development model in their jot journal annotations. It was applicable within the varying content areas and secondary grade levels. The use of self-assessment so that individual students could reflect upon their work and determine improvements autonomously was supported through the participants' overall professional development experience via the data collected from jot journals and individual interviews.

Theme 3: Self-Assessment for Independent Student Growth

Two of the 13 participants of this study explained in their individual participant interviews that as a result of this professional development experience there were plans to develop self-assessments that bolstered independent student growth in future or existing classroom practices. Based on the data provided by their jot journals, eight participants also noted/described an understanding of the ways in which self-assessment increases student maturity and metacognition and elevates their practice of necessary life skills. Self-assessment also provided a means for growth in students desire to take ownership of assignments and be responsible for their independent learning.

As with the use of self-assessment for individual student reflection, participants were interested in implementing self-assessment as a means to elevate and increase student growth. Student maturity, metacognition, and life skill knowledge and ability were all mentioned as being areas where students' capabilities could be increased though

the use of self-assessments. These align with the principles of Dweck's theory of growth mindset outlined in Mutluer and Altun's (2023) study involving how the application of strategies could affect 42 Turkish eighth grade students' "self-efficacy, self-regulation, academic achievement and mindset development scores" (Mutluer & Altun, 2023, p. 386). Mutluer and Altun concluded that the application of these strategies were successful in the creation of a mindset focused upon academic achievement, they did not show support in assisting students in developing methods to self-regulate or have independent agency (Mutluer & Altun, 2023).

While this is only partially supportive of the goals the participants in the present study desired to have through the inclusion of self-assessments, it nonetheless provided evidence that participants could trust to ensure that the implementation of self-assessments would aid students in growth of some fashion. This might predominately only be through academic achievement within the content. However, two of the participants cited in their individual participant interviews this simply as a lesson plan idea or recommendation that they contemplated as a result of the professional development experience; beyond of few minor implementations reported by participants, there was no further evidence of how the information affected overall student achievement and growth.

Professional Development in Education

Professional development has a long history in the United States, and as the educational needs of students change so too must the teaching strategies used by education practitioners also adjust to meet those needs. Therefore, it is necessary to

provide professional development experiences to teachers in order to meet the changing needs of their practices.

However, professional development cannot and should not be presented as a one-size-fits-all, broad sweeping experience. As discussed previously from the Frontline Technologies Group (2022) research, teachers—and learners of all kinds—must be active learners who engage in the learning process, not simply attend. Just as the students in our classrooms cannot effectively learn through passive means, neither should the teachers who are working to develop new teaching practices experience passive learning as part of their professional development offerings. The emerging themes for Research Questions 1 and 2 supported this; participants appreciated the active engagement provided by the jot journaling aspect from Research Question 1 as well as the collegial conversation portion from Research Question 2.

Beyond the engagement provided through participating in the collegial conversation, participants also experienced collegial support. Ong-Art Namwong (2021) stated that Professional Learning Communities (PLCs) supported teacher confidence for instructional practices. The collegial conversations and the resulting interactions among this study's participants and the support they offered to one another aligns with the Ong-Art Namwong insights (Ong-Art Namwong, 2021). Also in alignment with these outcomes are the arguments contended by Anderson (2021). The data from that study shared that opportunities for collegial collaboration resulted in greater learning experiences for teachers (Anderson, 2021). Based on the themes that resulted from Research Question 2 and the inclusion of the collegial conversation aspect of the

professional development, the participants in the present study shared similar feelings and felt supported by their colleagues as they considered enacting newly presented ideas into their current modes of instruction.

However, active engagement and interaction among and support from colleagues were not the only outcomes of note within the present study. Themes related to convenience, flexibility, accommodation, and pliancy also emerged. These were supported by the research done by Czerniawski et al (2018) that stated professional learning had a greater likelihood for producing stronger impacts upon learning when it was presented to teachers through ways that offered greater depth of meaning and respected educator time. Participants in the present study provided numerous pieces of evidence showing that their professional learning experience offered a sense of control in terms of time and space. Not only could they choose where and when to engage with the podcast, perform the jot journal, and participate in the collegial conversation, but also they had multiple choices and options for what they could do while listening, how they annotated their notes while journaling, and how they engaged with their colleagues while conversing.

Finally, the work of Darling-Hammond et al. (2017) supported the emerging themes from Research Question 3 as well as the desire from participants for further professional development takeaway options that could be used in future practices and the sharing of new ideas and perspectives from Research Question 1. Darling-Hammond et al. stated that the information presented in the professional development experience must be a major consideration for the PD to be meaningful (Darling-Hammond et al., 2017).

The emerging themes focusing on peer collaboration, self-assessment for reflection, and self-assessment for growth that the participants chose to focus upon expressed the meaning found while taking part in the professional learning. Further meaning was evoked for participants as they gathered new ideas and perspectives from their colleagues. They appreciated learning from one another, and the connections they shared between and among them showed the potential this mode of professional development had for heightening meaning for the participants.

The participant's desires for further ways to capture their individual thoughts and ideas and share those with those from the group and beyond also aligns with the concept of Darling-Hammond et al.'s that stated the necessity for professional development to be continuous and recursive so that it can be most effective (Darling-Hammond et al., 2017). Professional development should extend beyond one learning experience. It must also offer opportunities to interact and reflect (Darling-Hammond et al., 2017). Through requests for learning extensions via collegial sharing of artifacts that resulted from the professional learning experience, participants showed the desire to continue the learning process and deepen it through independent application and personal reflection.

Limitations of the Study

In chapter one, one of the greatest limitations was perceived to be the sampling of the population. It was assumed that a large portion of the participant pool would come be District Teachers of the Year. In actuality, only four participants were known District Teachers of the Year; it was unknown as to whether the other nine participants shared this distinction. Though my population was not made up of the type of teachers I had

originally proposed, I still assumed that each participant would respond with honesty and with completion. Therefore, I diligently worked to ensure clarity and remove any conceptualization of bias or partiality.

Another limitation of the study that emerged was the necessity for me as the researcher to act as collegial conversation facilitator. Though I tried to prevent any suggestion of bias, the facilitation of the collegial conversations also necessitated that I offer deeper explanation for the guiding prompts within the collegial conversations, and in some of the conversations when there were smaller groups, I had to participate in the conversation beyond simply facilitating. This was done through offering some of the ideas I had considered while listening to the podcast and after hearing comments and suggestions made in other collegial conversations. I chose to share these because they provided opportunities for the participants to expand the thinking and sharing that had already been offered.

Another limitation for this study was the limited demographic represented. There were only 13 participants, and they were from a limited number of grade levels. Only three represented middle school teachers, and only ten represented high school teachers. Furthermore, they did not offer insights from other content areas such as social studies, physical education, visual arts, business, or foreign language. Elementary teachers and teachers from content areas beyond that of ELA, Science, Music, Math, and Special Education might experience this same professional development method differently, and the results might not prove to be transferrable. Because of this, no affirmation exists stating that all teachers from all content areas and grade levels would share the same

outcomes as these teachers.

Recommendations

The research study presented here furthers the existing research concerning educational professional development. I identified eight themes based on the data gathered and analyzed from teacher interview transcripts, jot journal annotations, and collegial conversation observations and notes. These assisted me in determining whether teachers would accept or reject a professional development model of this design. As a result of the research there are four recommendations provided that would make this type of professional learning more acceptable to teachers as a new form of professional learning with which they would engage more readily and with greater student outcomes as a result.

Recommendations for Practice and Social Change

I recommend that when selecting the learning content, district leaders and school administrators choose content that will have meaning for all included teachers. This content does not, however, have to be limited to a podcast, though it can be. The participating teachers showed an affinity for the podcast, but several also offered other ideas that might be considered for frontloading content. These included videos, blogs, and articles. The learning content may be thematically connected so as to provide meaningful information to participants, but it must also be frontloaded so that teachers can interact in the way of their choosing.

I recommend that methods for capturing and sharing ideas from the learned content be intentionally open-ended so as to allow the participant to determine how it

applies to their own teaching practice. This not only includes how they take down ideas but how they grow those ideas through reflective consideration after sharing. For this particular study, I chose to have participants use a jot journal to capture ideas from the frontloaded podcast content, and the journal was intentionally open-ended and undirected so as not to dictate what teachers were “supposed” to learn. This allowed the participants to determine how the information was personally applicable to their teaching practices and instructional methods. District leaders and school administrators might consider having a digital shared folder so that professional development participants can share their thinking with colleagues, gather feedback, and reflect upon the comments and suggestions shared therein.

I recommend including the collegial conversation as a part of the professional development, and I recommend that it be offered in both in-person and virtual engagement. This allows for continued teacher choice and autonomy for how they engage. Almost all of the participating teachers expressed an appreciation for the conversation shared with their teaching colleagues despite being from different schools, grade levels, and content areas. However, some did say that they might have benefited more from speaking in small groups with whom they shared similarities prior to a larger group conversation. Though it was not offered in this trial, the triangulated data suggested that district leaders and school administrators could offer asynchronous interactions via digital means first (another way of “frontloading” learning content) and then have synchronous face-to-face discussions among varying faculty members. These frontloaded options might include digital sharing methods such as those provided by

Padlet, Nearpod, Flipgrid, or Learning Management System discussion boards. School social media sites might be used as well; in this way the podcast, video, or reading content could be uploaded and comments could be expressed in associated digital threads. This might also work well if reversed. Teachers might choose to work synchronously first in small content or grade-level specific groups and then share out their learning digitally to a larger audience following its completion. The most important aspect is that teachers be given the opportunity to share their thoughts about the content and how it might positively affect their work with students to generate improved student outcomes in order to grow and support their colleagues.

I recommend that the professional development experience be offered in the most convenient and flexible ways possible. While this may include the way in which participants select the content they interact with, it will also include the time and place in which they engage. District leaders and school administrators should set a time frame for when teachers should engage in learning the content and a time frame and method for their collegial interaction. Teachers should not be expected to engage with the frontloaded information in a set time or place; this should be left up to their own professional judgment and to their professional and personal learning needs. Similarly, their engagement with colleagues should also include choice. Options may be given for synchronous or asynchronous interaction; these could also be offered in person or virtually.

Each of the components of the professional development were well-received by the participants. However, many did say that for the professional development to be truly

effective, there would have to be ongoing support. This is another reason for the necessity of the provision of choice and options for both synchronous and/or asynchronous learning and collaboration. Not only does it offer convenience and flexibility for teachers, it also provides an opportunity for them to re-engage with the content and the captured notes, shared ideas, and developed products when they need to apply them in their classrooms and with students. The support is on-demand and does not have to be over just because the time for the professional development ended.

Recommendations for Future Research

There are several modifications to this study that might be made in future research to determine if this method of professional development delivery truly could be affective due to its acceptance by educators. One obvious modification could be the pool of study participants or their location. Instead of secondary educators from a southeastern region of the United States, future research might focus on elementary or early childhood educators from a variety of locations across the globe. Also, future research might include the perspectives of librarians, media specials, and school counselors as they were not included in this study.

Another aspect of the study that might be altered could be the inclusion of podcasting as the means by which content is initially shared; future studies could instead explore using videos, blogs, or articles instead of podcast listening. Because the participants of this study expressed a desire to have a digital means for idea sharing, an asynchronous sharing method beyond that of the jot journal might be considered as a modification. Even the shared discussions among peer groups might be reconsidered in

future research: interactions that take place among teachers of the same content area or within the same school or district might be another avenue for exploration.

The implementation of these recommendations might result in professional development experiences that teachers accept more readily than typical lecture-style PD. They align more with the professional learning needs educators have and also provide them professional choice while exercising personal freedom. While these are only reflective of a small sect of educators, the results indicate that they might also be applicable to other grade levels and content areas.

Implications

Professional development opportunities that offer convenience and flexibility as well as new learning and meaning for teachers will create positive social change. Bartley and McKay (2022) explained that teaching practices are improved and lead to student growth when teachers are provided with professional learning opportunities that support their craft. Akiba and Lang (2016) affirmed this through the notion that professional development offered teachers the chance to better their practice, both in content knowledge and instructional methods. They further stated that when the professional needs of teachers are met, greater student outcomes are realized (Akiba & Lang, 2016). Thus, when teachers receive the support they need to grow as professionals, both they and their students reap the rewards.

As originally stated, the problem for this study was to discover how teachers experience podcast listening, jot journaling, and collegial conversation as a form of professional development. It further sought out knowledge as to whether teachers would

accept or reject a professional learning model of this kind, as compared with more traditional, lecture-style professional development experiences. Finally, it was unknown as to whether a professional learning experience of this design would result in the formation of lesson or unit plans or if educator suggestions might emerge.

I discovered through this study that the experience teachers had in podcast listening, jot journaling, and collegially conversing resulted in eight major themes: Learning Autonomy Provisions, Meaningful Personal Connectivity, Modes for Capturing Ideas, Purposeful Interaction and Support Among Teachers, Accommodation and Pliancy of the Professional Learning Experience, Peer Collaboration for Classroom Learners, Self-Assessment for Individual Student Reflection, and Self-Assessment for Independent Student Growth. I also learned that the participating teachers self-reported a willingness to accept this model of professional learning and exhibited preferences for it (and suggested variations thereof) over the typical type of professional development sessions often delivered in districts and schools. It was also discovered that lesson plans were created as a result of this learning experience for at least one participant and several others reported considerations for implementation in the future.

In conclusion, the eight themes that emerged for the Research Questions of this study provided insight based on the theoretical framework employed for this study concerning how to build acceptance and use with this particular professional development model. As previously explained in Chapter One, the unified theory of acceptance and use of technology (UTAUT), provided guiding elements that could assist in determining whether users would accept and use new technology. In terms of

acceptance, four themes aligned with the tenet of “Performance Expectancy,” which said that users were more likely to accept a new technology if it meant they would experience personal growth in their practice. These themes were Meaningful Personal Connectivity, Peer Collaboration for Classroom Learners, Self-Assessment for Individual Student Reflection, and Self-Assessment for Independent Student Growth.

Also in terms of acceptance, three themes aligned with the tenet of “Effort Expectancy,” which explained that new technology would be accepted if viewed as having a greater ease of use. The three themes for this particular principles were Learning Autonomy Provisions, Modes for Capturing Ideas, and Accommodations and Pliancy. The final aspect for acceptance associated with a person’s intention to use new technology was “Social Influence,” and it related to the theme of Purposeful Interaction and Support among Teachers.

In order to ensure that new technology is used, another tenet is applied beyond the original three. This principle, “Facilitating Conditions,” explained that users believed the new technology was capable of being supported within existing systems. Though one theme was already aligned with “Effort Expectancy,” Modes for Capturing Ideas was also included under the tenet for “Facilitating Conditions,” because users felt as though they could share their learning takeaways through existing technology structures already in place within their schools and/or districts. As a result, these themes confirmed what was predicted in the UTAUT: a user’s behavior intention and use would result if users positively experienced the four given elements.

The eight emerging themes also suggested that the cognitive learning theory and

Gagné's events of instruction were easily developed and implemented in this professional learning model. Because teachers could be active in their professional learning through the creation of the jot journal and through participation in the collegial conversation, they were able to apply the learning in a way that was meaningful for each one personally and in such a way that allowed them to have multiple means of processing learned information. Similarly, the order in which learning occurred through podcast listening, simultaneous/reflective jot journaling, and collegial conversing, followed the nine actions within the events of instruction in the order they were deemed necessary to follow.

While there is ease in developing and implementing a model for professional learning that is both accepted and used by teachers, gathering and vetting quality resources for this design will be more labor intensive for school and district leaders who plan such professional development experiences. I speculate that this part of developing such professional learning experiences will force administrators to participate in more professional growth and learning on their own so that they can bring the best and most applicable resources to their teachers. School and district leaders will need to experience the learning for themselves and vet it in order to determine its relevance to their school and district and whether it will help progress teachers further towards meeting set goals for student outcomes.

However, though it might be more labor intensive on the front end for school and district leaders, the accessibility of the on-demand aspect of the resources (and potentially the collegial interaction) could lighten the load of scheduling in-person professional development experiences, and it could certainly lighten the expense sometimes associated

with professional learning. Schools might be able to use e-learning days or before/after school hours to more effectively offer professional learning experiences during times that are most conducive for individual teachers' schedules. Securing acceptable locations would no longer be a factor, and the cost for the learned information would be lessened. Plus, related costs that sometimes are incurred with in-person professional development (facility costs, food/drink considerations) would be reduced or eliminated through this design.

Other methodological changes or alterations might also be considered. Because this study focused on podcasting as the frontloading mechanism for content, future research might apply the use of videos, blogs, or articles in its place. Rather than a jot journal, future studies might determine that a digital method for capturing ideas for reflection would be more advantageous for teachers in their professional growth. The collegial conversations used within this research study could be altered to one with asynchronous interactions as well. Additionally, while the present research sought to discover if lesson plans or teacher recommendations would emerge, future researcher might choose to delve into the effectiveness of lesson plans designs that were implemented to determine if the professional development approach did lead to improved student outcomes.

It is important to note, however, that perhaps not all content could be taught through this model. There are absolutely physical learning experiences that cannot be replaced through this model; this was eloquently stated by one of the participants who discussed professional development related to meeting the needs of students with

disabilities. There are distinct forms of professional development that are necessarily hands-on; it would be inappropriate to try to provide that kind of content and physical learning solely through this professional learning design.

Potential Positive Social Change

The implication of this study in terms of potential positive social change is that it will lead to greater teacher acceptance of the model and, in turn, this will guide improvements in instruction and lead to greater student success. However, the elevation of student success is only one aspect of how the implementation of this style of professional development could positively affect social change. The use of this model of professional development would also support collaborative learning among teachers and lead to the creation of a social network of support for teachers that spans far beyond the school level. Because teachers sometimes seem to experience feelings of isolation, this model would help to alleviate that singularity by providing opportunities for partnership and collegial engagement.

The overall goal for professional development is greater student success in the classroom. Professional development leads to such outcomes because it provides teachers with new content and instructional approaches that can be beneficial for the varied needs of all students. While the information provided by the podcast alone might have led to an improvement of individual teaching practices, the inclusion of the jot journal further deepened the information by offering teachers the opportunity to expand their learning through reflective practices. However, by providing teachers with the opportunity to converse and discuss their reflections and ideas with colleagues from across the

southeastern region of the United States, teachers not only extended their learning as they reflected upon how it pertained to their classrooms, but also they expanded it as they learned new perspectives and ideas that were previously unconsidered. As they merged their individual thinking and collaboratively worked to engage in more thoughtful learning they also encouraged and supported one another. While this was not the intended focus of the study, teacher comments captured in the Purposeful Interaction and Support among Teachers theme showed that even among a small subsection of teachers in a brief virtual conversation, camaraderie and confidences developed. The comments made in the interviews suggested that the participating teachers appreciated the ideas that each member brought to the collaborative experience and seemed to feel as though their teaching practice could be improved from such interactions.

This is a tremendous implication considering that teachers, especially teachers who actively seek out professional development independently, often feel isolated in their work. Because of the nature of their schedules, secondary teachers rarely have common planning times with colleagues from their content areas or grade levels. Often they are only provided with 1 day of the month for meetings within their departments. Faculty meetings that offer opportunities for varying grade levels and content areas to discuss shared instructional concepts are even fewer and far between. For rural teachers with fewer colleagues to interact with, the opportunities can be further reduced. COVID-19 created a deeper chasm between teachers within their schools and districts due to the necessity of distancing for safety purposes.

However, approaching professional development with this model as a guide offers

a means to break down those isolating barriers. It provides a way of attaining instructional knowledge and practice reflection independently that can serve as a foundation that later collaborative conversation can build upon and expand. Furthermore, those social connections will not be of singular benefit; they will continue to offer on-going support as teachers grapple with new understanding and work to implement into their teaching practice with greater knowledge and confidence.

Methodological Implications

Because this study was a basic qualitative case study, it could easily be replicated within singular schools and across systems of schools within school districts. It does not necessarily need to be confined to secondary educators. It could expand to include teachers from the Early Childhood realm (pre-Kindergarten through second grade) as well as those from the Elementary level (third through fifth grade). Because this study was limited in the number of participants and the content areas they taught, future research could elect to focus on an under-represented area: social studies, business educations, career and technology, or foreign language to ascertain a broader perspective for teacher experience and their acceptance or rejection of this model.

Theoretical Implications

Cognitive learning theory, as explained by Kretchmar (2021) is dependent upon active learner participation and opportunities for meaningful interaction with other learners. The application of this theory provided an initial framework for the design of the professional development experience or this research. It successfully guided my creation for how participants could actively learn and engage with other learners through

their jot journal creation (either while simultaneously listening to the podcast or upon reflection after listening) and through participation in the collegial conversation. However, the research also required aspects of Gagné's events of instruction, as described by Islam and Salam (2019) to intentionally select and apply learning experiences in a specific order in order to ensure efficacy. They explained that the nine aspects of learning must be arranged thoughtfully to result in effective learning; these must include extracting consciousness, stating the learning purpose, reviewing known information, sharing new content, suggesting direction, guiding decisions for action, offering feedback, assessing success, and creating a means of skill and content elevation (Islam & Salam, 2019).

To be sure I followed the events of instruction, I made participants aware of what the learning experience would entail in the learning through the explanation that they would listen to a podcast and write their thoughts in an open-ended jot journal and then discuss the information later in a virtual conversation with colleagues. The podcast listening experience provided participants with the purpose of the learning, served to review known information, provided new information, and offered advice for implementation. Both the jot journal and the collegial conversation providing a means for guiding decisions for implementing new information. The collegial conversation provided a means for delivering feedback and assessing future plans as well as for elevating the abilities and knowledge of students through lesson and unit designs.

The crux of the theoretical framework was most dependent upon the unified theory of acceptance and use of technology (UTAUT), which was developed and

explained by Venkatesh et al. (2003). This framework is necessary so that I as a researcher could better understand how and why my participants might accept or reject an innovative approach to professional development. The UTAUT also gauges how a group's members will put the innovation to use, if it is accepted, and focuses upon three component necessary for acceptance and four aspects required for implementation. The three components for acceptance are "performance expectancy," "effort expectancy," and "social influence." The four aspects necessary for implementation include the three previously mentioned as well as "facilitating conditions," which can be effected by gender, age, experience, and whether the innovation is required or used voluntarily (Venkatesh et al. 2003).

This research allowed me to combine "performance expectancy," "effort expectancy," and "social influence" in my effort to determine teacher acceptance or rejection of this professional development model. It did not force me to make considerations in terms of gender, but it did allow me to include both the factors of age and experience, as I chose to include only veteran teachers in the study. Finally, I could perform an exploration and to describe my findings on teachers' voluntariness of use to further understand the participants' behavior intention and use behavior concerning this model of professional development.

Conclusion

In this study, I explored and described the experiences of secondary teachers from the southeastern region of the United States as they engaged in a professional development model that included podcast listening coupled with jot journaling and

collegial conversation. This exploration allowed me to describe whether a professional development model of this kind would be accepted or rejected and whether lesson plans or teacher recommendations would emerge from engaging in this type of professional learning. The teachers who agreed to participate in this professional development experience described an appreciation for this type of professional learning and self-reported desires for its continued and expanded use within their schools and districts.

Professional development experiences are necessary for teachers to improve the quality of their instruction and their expertise in specific content areas. However, professional development must be meaningful to teachers, if the tenets it explains are to be used for classroom instruction and for the betterment of student outcomes. Therefore, it must support teacher choice and autonomy for how professional learning takes place and how it is supported collegially, both through its initial implementation and through on-going engagement. If district leaders and school administrators consider professional development models that offer teachers choice and voice as well as extended and expanded collegial support, a culture of intentional instruction and professional growth that will lead to improved and successful student outcomes has the potential to be the result.

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Appendix A: Semi Structured Interview Questions

1. What was your experience as a professional learner while listening to the educational podcast? (listed below are potential follow-up questions)
 - a. What were your thoughts about the podcast you were asked to listen to?
 - b. What was some insightful or helpful information you chose to document in your reflection journal?
 - c. Why were these important to you to record?
 - d. What did you do while you were listening to the podcast?
 - e. What did you enjoy about the podcast listening and jot journal reflection experience as a form of professional development?
 - f. What did you dislike about the podcast listening and jot journal reflection experience as a form of professional development?
 - g. What would you change about this experience if you were developing educational PD for your colleagues?
2. What was your experience as a professional learner in writing your jot journal reflection for PD after listening to the educational podcast?
 - a. What were some useful aspects of jot journaling?
 - b. What were some drawbacks to jot journaling?
3. What was your experience as a professional learner while participating in collegial conversation after listening to the educational podcast and writing your jot reflection journal?
 - a. Did you feel compelled or excited to share your ideas or thoughts with your colleagues, or did you feel anxious about sharing?
 - b. Why do you think you felt this way?
 - c. Did any of your colleagues bring up ideas that you wanted to explore further or that you became curious about? Tell me more about that.
 - d. Did your conversation with colleagues feel natural and flow with ease, or did the experience feel artificial and forced? Please explain.
 - e. What did you enjoy about the collegial conversation you participated in?
 - f. What did you dislike about the collegial conversation you participated in?

- g. What would you change about this experience if you were developing educational PD for your colleagues?
- 4. What educational ideas, designs, or recommendations resulted from your conversation with your colleagues?
 - a. Did you have any discussions about lessons or instructional strategies based on the podcast that you were especially excited about? Why or why not?
 - b. Did you have any discussions about lessons or instructional strategies based on the podcast that you were especially wary of? Why or why not?
 - c. Were there any ideas about lessons or instructional strategies that you wanted to discuss further but didn't have a chance to do so?
 - i. What were these ideas?
 - ii. Why do you feel you were not able to discuss them?
 - d. What would you change about his experience if you were developing educational PD for your colleagues?
- 5. What was your overall impression of this professional development experience?
- 6. How does this professional development experience compare with others you have had in the past?
- 7. If you were designing a professional development experience which if any, aspects of this experience would you implement and why?
- 8. Which aspects of this PD experience would you NOT include and why?
- 9. Which professional development experiences best suit your needs as an educator and professional learner?
 - a. What would be crucial to have for you to feel it was an effective experience? Why?
 - b. What must be absent from the experience for you to feel it was effective? Why?
- 10. Is there anything else you would like to share about your experience?

Appendix B: Jot Journal Instruction Statement to Participants

As you are listening to the educational podcast episode (or at the end of listening), please jot or briefly write any thoughts, ideas, inspirations, or concerns you had while listening and bring these with you to discuss during the collegial conversation. These can be written in any way that is most conducive to your learning experience.

Appendix C: Observation Protocol

Length of Observation: 30 Minutes	
Descriptive Notes	Reflective Notes

Appendix D: Guiding Prompts for Collegial Conversations

1. What were some of your “a-ha” moments or big takeaways from the content?
2. What inspirations did you have following your listening experience that you included in your jot journals or that you want to share here with colleagues?
3. What actions did you consider to begin to employ in your classroom practice based on the content from the podcast?