

Fall 12-15-2018

## **A Case Study of Fine Arts Teachers' Perceptions of ePortfolio Evaluation as Professional Development**

Jacquelynn S. deMontmollin  
*Concordia University - Portland*

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Concordia University–Portland  
College of Education  
Doctorate of Education Program

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A Case Study of Fine Arts Teachers' Perceptions of  
ePortfolio Evaluation as Professional Development

Jacquelynn S. deMontmollin  
Concordia University–Portland  
College of Education

Dissertation submitted to the Faculty of the College of Education  
in partial fulfillment of the requirements for the degree of  
Doctor of Education in Teacher Leadership

Christopher Jenkins, Ph.D., Faculty Chair Dissertation Committee

Deborah Jones, Ed.D., Content Specialist

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Concordia University–Portland

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## **Abstract**

This qualitative case study illustrated perceptions of seven fine arts teachers who were veteran participants in an ePortfolio evaluation method (with three or more years participation). The research questions centered on professional growth, reflection, and the impact ePortfolio had on the craft of teaching. A blended conceptual framework of Schön's (1983, 1987) theory of reflection-in-action and reflection-on-action, and Mezirow's (1991) transformative learning theory was applied to analyze the data. The researcher explored types of reflection fine arts teachers perceive through ePortfolio evaluation, and how the process of ePortfolio evaluation doubled as a professional development for some teachers. Through three phases of the study which included a written eInterview, a video interview, and a face-to-face portfolio review, teacher perceptions of benefits and challenges emerged. Benefits included evidence of reflective practice, retention of highly effective teachers, a focus on student growth and state standards, and among five participants, a reported shift in practice from product-focused to process-focused teaching in their fine arts' classrooms. Emerging as challenges in ePortfolio practice included time, training, technology, and lack of adequate feedback in the perceptions of the seven participants in this study.

*Keywords:* ePortfolio, teacher evaluation, reflection, reflective practice, fine arts, transformative learning, premise reflection

## **Dedication**

For Fine Arts administrator who led the creation of this system, thank you being an inspiration.

For my committee, thank you for challenging me.

For the devoted teachers who participated in this study, thank you. You are each amazing.

For my mom and dad, thank you for instilling discipline,  
and giving me an inner voice of encouragement.

For Aaron, thank you for your support throughout this journey.

And for Aidan and Yubin, you make me immensely proud. Thank you for inspiring me daily.

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## Chapter 1: Introduction

We all remember a teacher that impacted our thinking, perceptions, and growth during our K–12 experiences. Did that teacher have a certain skill or ability that others did not? The Widget Effect, explored in a 2009 study, begs us to question differences between effective and ineffective teaching. The Widget Effect study explored policies surrounding the management and evaluation of teacher performance (Weisberg, et al., 2009). The discovery was startling; 99% of teachers received a good or great rating for their teaching by the campus or district evaluator assigned to review their work. Are 99% of teachers good or great at the craft of teaching? From my personal experience, the answer would be no. The question arises as to why teacher evaluation systems resulted in such high ratings for 99% of teachers. If 99% of teaching is rated as good or great, this diminishes the opportunity to recognize true excellence in teaching (2009). Additionally, if 99% of teaching is already excellent, is there room for an evaluation system that promotes professional growth and development of teachers? Can an evaluation system serve as a model to promote teacher development alongside compliance and accountability typically associated with teacher evaluation?

Traditional teacher evaluation, in which an administrator visits a classroom on a pre-determined date and the teacher performs a well-prepared lesson, had been challenged by the Widget Effect study. This led to President Obama’s Race to the Top initiative, which created incentives for states to develop new evaluation systems linked to student outcomes (Choi & Park, 2016; Kraft & Gilmour, 2016). The traditional evaluation method of a classroom observation, often guided by a checklist, tells us little about teacher strengths and weaknesses, except to identify need for remediation or dismissal in 1% of teachers (Kraft & Gilmour, 2016; Weisberg, Sexton, Mulhern, & Keeling, 2009). For decades in the United States, principals

observed a teacher once annually, completed an evaluation, and provided a copy to the teacher. The traditional one time observation system does not promote a feedback cycle or growth for the teacher (Kraft & Gilmour, 2016). An evaluation method that fosters growth and development might build capacity in teachers.

Dweck's (2015) focus on developing a growth mindset in students has permeated educational philosophy in recent years. Dweck's research illustrated students holding a belief that intelligence can be developed (a growth mindset) outperformed students who believed intelligence was fixed (a fixed mindset). Growth mindset not only benefits children in education; constantly striving for improvement can benefit teachers as well. A growth mindset oriented system of formative teacher evaluation could develop capacity in teachers. There are obstacles to providing adequate and personalized development programs for teachers. Time for professional development, for example, is limited. Therefore, treating an evaluation as a formative tool that promotes growth could serve as a solution. Can a teacher evaluation method double as a professional development tool by promoting reflection and growth mindset? Portfolio evaluation, an identified High Impact Practice (HIP) in university settings (Eynon & Gambino, 2017) might aid this purpose. Portfolio evaluation is being used as a teacher evaluation method in some K–12 school settings.

An evaluation system in Tennessee called the Tennessee Student Growth Portfolio Model includes ePortfolio teacher evaluation that doubles as a professional growth tool. That system is the subject of this qualitative case study. Grounded in ePortfolio as a vehicle for sharing documentation and illustrating student growth, the Tennessee system has redefined the measure for effective teaching based on measured student growth in non-tested content areas. This evaluation method can serve as 35% of a teachers' evaluation if the teacher chooses to use it in

place of the campus standardized test score (Spears, 2018). In 2018, 80% of teachers received a good or great rating under this system (Gonzales, 2018). The system was designed to promote professional growth potential through the benefits gleaned in ePortfolio processes (Tennessee Department of Education, 2017). In order to promote growth, room for growth must exist, which may be a factor in the resulting in a dip in scores.

According to Gast [Tennessee Department of Education Spokeswoman], portfolios are given a score of level 1 to level 5, which is the highest score an educator can receive.

Level 3 is considered meeting expectations. More than 80 percent of all teachers using the portfolio received a level 3 or above. (Gonzales, 2018, para. 9)

This shift in platform and scores is not without controversy in Tennessee. The teacher's union reported that the technology platform Educopia had glitches that interfered with accurate measurement of teacher performance (2018). It remains to be seen whether the technology was the issue, however the Tennessee Department of Education did change platform contracts in July 2018 as a result of issues with Educopia's performance (Spears, 2018). A more relevant point beyond a number score in this study, however, is the professional development participants' experienced in their craft of teaching, and whether participation in ePortfolio might serve as a vehicle for improvement in the craft of teaching. This study aimed to explore participants' perceptions of professional growth resulting from participation in an ePortfolio appraisal model.

The ePortfolio teacher evaluation system in use in Tennessee may develop teacher capacity through an evaluation process. A 2017 study of Tennessee's ePortfolio evaluation system compared teacher observation scores of those participating in portfolio development with a comparison group of teachers not participating. The Tennessee Department of Education (2017) reported, "results suggest that participating in the portfolio process leads to improvements

in key teaching practices” (p. 6). Despite this quantitative improvement, the report further stated that “teachers are not yet recognizing the value of using a portfolio” (p. 8). This is the gap explored in this study.

This qualitative case study explored the perceptions of seven fine arts teachers engaged in the system for multiple years. The purpose in part was to discover why the data regarding change in teaching practice did not align with teacher perceptions as presented in the 2017 report, and how, and whether, growth was occurring. The Tennessee system uses ePortfolio to store intentionally selected artifacts of student work. In the fine arts, artifacts include, but are not limited to, recordings of students singing, acting, playing instruments, or student drawings or designs. The artifacts are collected from the same student, illustrating two different points in time. The artifacts are selected to represent student growth as evidence of teaching (Robelen, 2013). Teacher (participant) perceptions of their own growth and development relating to ePortfolio development and evaluation were the focus of this case study.

### **Background, Context, History, and Conceptual Framework for the Problem**

**Background and Context.** Barrett (2000), an ePortfolio pioneer, explained “a portfolio is not a haphazard collection of artifacts (i.e., not a scrapbook) but rather a reflective tool which demonstrates growth over time” (p. 2). Herein lies the inherent value of portfolios as tools for professional development in educators. The process of artifact selection for portfolio development requires discernment. Focused discernment in the ePortfolio development process can promote reflective practice. Teachers engage in critical analysis of their work through ePortfolio self and peer evaluation. While advocates believe that portfolios can encourage reflection on practice (Eynon & Gambino, 2017; Heath, 2002; Landis, Scott, & Kahn, 2015; Pitts & Ruggirello, 2012), research surrounding the process of ePortfolio evaluation’s impact on the

reflective practice in fine arts teachers did not exist at the time of this study. The type(s) of reflection K–12 fine arts teachers engage in when developing ePortfolio for evaluation purposes was unexplored in the research. Mezirow (1991) stated that premise reflection, in which one's prior learning is challenged, is necessary for true growth to occur in adult learners. Was premise reflection occurring in fine arts teachers developing ePortfolios? And if so, did that premise reflection result in changes in practice?

Schön (1987) illustrated the impact reflection-in-action had on an artist's process. Reflection-in-action occurs while a skilled person is working, in the moments they are making decisions about their work. In his documentation of a master class in piano performance, Schön observed that a piano student learned to expand his attention through the process of reflection-in-action. Additionally, the music student learned to evaluate his work and consider alternative possibilities in his choices. Reflection occurred through thoughtful questioning by a master teacher. Not examined however, was the role reflection-in-action played for the master teacher, as a coach and teaching artist. A participant named Franz served as a master teacher in Schön's documentation, but the role reflection played in his process toward the achievement of being and becoming a master teacher was unexamined. The act of exercising discernment while dissecting personal practice is key to reflective practice for the student musician (Schön, 1987). It is unknown if the same assertion holds true in developing the master teaching artist. In examination of the craft of teaching, it is unknown what type of reflection occurs in-action or on-action by the teacher, and whether or not it is similar to the level of discernment the student musician experienced, as detailed by Schön. It is possible that an ePortfolio process allows for a level of reflection about teaching processes that impacts teaching practice, and student learning?

Reflective practice is a habit of mind resulting from portfolio development (Wolf & Deitz, 1998). The ePortfolio system requiring documentation of student growth as a portion of a teacher's evaluation had been used in Tennessee with fine arts teachers since 2010. It was unknown what types of reflection have been occurring in fine arts teachers who are documenting student growth. The case for which this study was based were fine arts teachers who were engaged in this system for multiple years were. This study aimed to explore whether they perceived growth in their craft of teaching. The ePortfolio system in Tennessee allowed peers, identified as master teachers, to review one another's portfolio submissions (Tennessee Department of Education, 2017). This case study delved into the perceptions of teachers who not only participated in this evaluation system for multiple years, but who also served as peer reviewers. The study explored how seven teachers perceived their teaching had been impacted as a result of participating. This case study further explored what types of reflection they engaged in, and whether that reflection resulted in perspective shifts or professional growth.

**History of ePortfolio.** In the arts, showcase (product-based) portfolio development has been a typical practice for artists and designers to gain employment. "Most common are the visual artist's portfolio, the writer's portfolio, and the actor's collection of reels and headshots" (Ramirez, 2011, p. 3). Artist portfolios are such a common element of showcasing an artist's work; a Google search of "artist portfolios examples" produced 37,400,000 results in 0.50 seconds. Process portfolios showing the evolution of artistic work from concept to completion are used in fine arts to gain entrance into university programs (Kenyon & Meacham, 2006). The process-portfolio "represent[s] an effort to capture the steps and phases through which students pass in the course of developing a project, product, or a work of art" (Gardner, 1995, p. 259).

In the field of education in the 1970s, Williams introduced multimedia documentation as a tool for teachers to gain employment by showing skills in the form of audio-visual portfolios. Pre-service teachers would document work in process leading up to final form using audio-cassette tapes and photographs. This was an early form of ePortfolio, prior to the existence of the technology used today. Wolf and Dietz (1998) explained that for educators, portfolios offer an opportunity to be reflective. The commentary that faculty provided about their work revealed the cognitive processes of the teacher occurring both before and after the delivery of instruction. The multimedia portfolio evolved over time into the electronic Portfolio, which we refer to as ePortfolio throughout this dissertation. With inclusion of video samples, ePortfolios allow for teachers to review their choices and reflect on what they were thinking in the moment.

Process portfolios in digital format (ePortfolios) are used as evaluation tools in education (Albert, 2006; Barrett, 2000; Kraft & Gilmour, 2016; Robelen, 2013; Shutz & Moss, 2004). Process portfolios can serve as a reflective tool for documenting, examining, evaluating, and informing choices about the processes that led to a final product (Eynon, Gambino, & Török, 2014). A process portfolio can be considered a formative assessment tool. Examining and reflecting on process is thought to be an action that can facilitate change and growth (Gardner, 1995; Mezirow, 1991). Therefore engaging in ePortfolio development can be a transformative tool for in-service educators in developing their craft of teaching (Attinello, Lare, & Waters, 2006). A process-portfolio differs from a product or showcase portfolio. A process-portfolio can be used as a formative, growth oriented tool. A product or showcase portfolio is used as a summative assessment tool. (Barrett, 2010).

Many traditional teacher evaluation systems lack an examination of process, and involve specific expectations outlined in a checklist that may or may not be observable in a single visit to

a classroom (Weisberg, et al., 2009). In ePortfolio evaluation, documentation occurs by the teacher, over time, through collecting artifacts to represent the process (Bullock & Hawk, 2010; Tennessee Department of Education, 2017). Rubrics are often used to assist evaluators and to aid reliability. Attention must be paid to the development of rubrics for ePortfolio evaluation to allow the tool to function in a growth-oriented manner. “The best rubrics are developed through iterative processes of development and testing against authentic student work” (Eynon & Gambino, 2017, p. 102). In adult learning, rubric development must be carefully considered and the product should be field tested to ensure the tool is viable. Rubric use in adult learning can hinder or limit the potential for growth by narrowing the scope too much. Mezirow (1991) explained that competencies or benchmarks in adult learning can “result in reductive distortion and serve merely as a device of indoctrination” (p. 220).

Mezirow (1991) outlined a potential strategy to foster adult learning through maintaining a focus on what Schön (1983, 1987) termed reflection-in-action, and reflection-on-action, as tools to promote problem solving. Mezirow (1991) pointed out that reflection must be substantive for transformative growth to occur. The process of analyzing teaching through process-based ePortfolio development, which honors growth, might serve this aim. Requirements of ePortfolio evaluation and methods of giving feedback are important to consider for promoting growth.

The Tennessee Student Growth Portfolio evaluation model claims to double as a professional development tool, and was the subject of this study. The Tennessee model allows teachers of non-standardized tested subjects (arts, early primary grades, world languages, and computer and technology teachers) to be evaluated in part through submissions of student work samples and prior to shifting to the state-wide version of the system, participants wrote a

narrative summary. Artifacts are uploaded in an ePortfolio housed in a digital platform. This ePortfolio evaluation system established reliability through individual scoring and peer scoring through peer review (Tennessee Arts Growth Measures System, 2011). The results of this evaluation system lie in the teacher's ability to promote and document growth of student skills through selected student work samples. Through documenting evidence of student growth and development, teachers may grow and develop in their craft of teaching. Reflection may occur and stimulate that growth. Despite this potential, the use of ePortfolios in teacher evaluation and development in K–12 public education is not the standard approach to evaluation in the United States; administrator observation is a more typical form of teacher evaluation (Weisberg, et al., 2009). However, in the past decade, in undergraduate teacher training programs around the world, the practice of ePortfolio development has become common (Albert, 2006; Darling-Hammond, Newton, & Wei, 2010; Wilhelm, et al., 2006).

A review of the literature indicated ePortfolio use has emerged over the past decade as a tool for promoting growth and development of pre-service teachers. (Albert, 2006; Darling-Hammond, Newton, & Wei, 2010; Wilhelm, et al., 2006). The benefit of using ePortfolio over a paper portfolio is the ability to integrate multimedia artifacts such as video, audio, and digital images (Albert, 2006; Barrett, 2000; Chen, Kuh, Penny-Light, Rhodes, & Watson, 2016; Cochrane & Flitta, 2013; Milman & Kilbane; 2005). Twenty-first century Web 2.0 technology with digital photography, video editing capability, and easy website development, allows for a reflective documentation of process to grow in sophistication beyond paper portfolios. The use of a variety of digital media artifacts can encourage authenticity and specificity in documentation and reflection; this practice also makes learning visible (Ramirez, 2011). Digital tools aid in documenting process by capturing events in real time. The learner can watch, review, and reflect

on events such as lesson delivery, student performance, and various elements related to the craft of teaching and learning. In addition, sharing of ePortfolios is instantaneous by simply clicking a link, allowing for a wide range of applications beyond evaluation (Barrett, 2010; Chen, et al., 2016; Cochrane & Flitta, 2013; Milman & Kilbane; 2005). Teachers are now entering the profession proficient in developing process-based ePortfolios due to their undergraduate experiences. Habits of reflective practice might transfer into the teaching profession as a result.

**Conceptual Framework.** Schön (1983, 1987) explained reflection as a tool that can help develop an expanded sense of experiences. The literature supported reflection as being a primary benefit of ePortfolio practice; this is due to the process-based nature of ePortfolio (Carson, McClam, Frank, & Hannum, 2014; Firdyiwek & Scida, 2014; Janosik & Frank, 2013; Landis, et al., 2015; Pitts & Ruggirello, 2012). The conceptual assumption is that reflection occurs for teachers through the process of ePortfolio development. What is unknown is the type of reflection that occurs in fine arts teachers engaging in ePortfolio development as a form of evaluation. This study attempted to discern the role reflection played for a sample of seven fine arts teachers who were engaged long term (three or more years) in ePortfolio evaluation.

The ePortfolio is thought to be a vehicle for promoting reflective practice. Eynon and Gambino (2017) explained “Reflective pedagogy transforms ePortfolio from a push-button technology into an engaging process of connection, linking students’ academic learning and life experience to the most profound process of personal growth” (p. 34). EPortfolio is an identified High Impact Practice (HIP) in higher education, largely due to growth resulting from reflection; does the same high impact and reflective practice ring true in use of ePortfolio in teacher evaluation? This case study explored how ePortfolio evaluation impacted reflection and, in turn, teachers’ perceptions and descriptions about how it impacted practice.

The role of reflection in ePortfolio development is supported by Schön's (1983, 1987) theory of reflection-in-action and reflection-on-action. This theory is a component of the conceptual framework for this study. Schön (1983, 1987) describes both reflection-in-action, which is the reflection we engage in in the moment, and reflection-on-action, which is metacognition (thinking about thinking) that we engage in following an experience. Teaching is a skill and teachers make many decisions in the moment based on their knowledge and experience. Teachers not only reflect-in-action while teaching, applying their knowledge and skill immediately, but also reflect-on-action in a deliberate effort to analyze and improve practice. EPortfolios provide a structure and a vehicle for reflecting-on-action through the exercise of collecting and then selecting artifacts. Does the act of creating an ePortfolio for evaluation lead to a perceived increase in reflection? Does reflection occur either intentionally, or inadvertently, due to increased activity documenting direct work with students through the actions of video taping, photographing, and analyzing student work with the intent to show student growth in an ePortfolio?

An additional component that rounded out the conceptual framework of this study was the inclusion of Mezirow's (1991) transformative learning theory, in which premise reflection is an important element. "Premise reflection is the dynamic by which our belief systems –meaning perspectives- become transformed" (p. 111). Through premise reflection learners can analyze their presuppositions. This process allows critiquing and reassessing of prior knowledge. By engaging in premise reflection, the professional can assess application of prior learning, evolve perceptions, and as a result grow and develop more effective practice (Mezirow, 1991). This case study explored whether the role of reflection in ePortfolio development led to transformative learning for the fine arts teachers involved. Both of these theories are in the spirit of

constructivism. Constructivism, as defined by Bruner, leads a learner to construct ones' own new knowledge based on past knowledge and experiences (Mohapatra, Mahapatra, & Parida, 2015).

### **Statement of the Problem**

The Tennessee ePortfolio teacher evaluation system aims to serve as embedded professional development for teachers (Tennessee Department of Education, 2016). A 2017 report on a study of the system indicated that teachers surveyed were not recognizing the positive impact of creating a portfolio, yet the quantitative analysis of observation scores showed an increase of a tenth of a point from teachers creating portfolios. "While these differences may seem small, a difference of a tenth of a point represents about half of the average growth seen in teaching practices from the first year to the second" (p. 7). The authors of the study hypothesized that the teachers had not participated long enough in ePortfolio to recognize the impact on their practice. It is not known if teachers who have participated for several years perceive ePortfolio evaluation as having impacted their development. Thus, this study explored how teachers perceived professional growth resulting from the system. Through individual ePortfolio reviews with each subject, this study aimed to discover whether seven fine arts educators engaged in the system for multiple years' perceived growth.

### **Purpose of the Study**

The purpose of this qualitative case study was to explore perceptions of a sample of fine arts teachers participating in an ePortfolio teacher evaluation system. The study explored perceptions surrounding professional growth, types of reflection teachers engaged in, and whether there were differences in perceptions across three fine arts content areas: music, visual arts, and theatre arts. The seven teachers participated in the ePortfolio evaluation system for three or more years. This study included three forms of interviews with the teacher participants.

First, a written eInterview (see Appendix A), second, a one-on-one video-conference interview (see Appendix B), and third, an in-person interview involving review of their ePortfolios (see Appendix C). This study included three embedded cases within fine arts: music, visual arts, and theatre.

### **Research Questions**

Three research questions guided this study:

RQ1. What type(s) of reflection do fine arts teachers perceive when developing ePortfolios for evaluation?

RQ2. How does the process of ePortfolio evaluation impact the craft of teaching in music? In visual arts? In theatre?

RQ3. How do ePortfolio evaluations double as a professional learning tool for a music teacher? A visual arts teacher? A theatre teacher?

### **Rationale, Relevance, and Significance of the Study**

The Tennessee Department of Education (2016) explained the student growth portfolio model as an option that 27 districts across the state of Tennessee (2016) elected to use in non-standardized tested subject areas, which included fine arts, physical education, and world languages. In a survey, educators using the portfolio growth model cited an increased sense of purpose in their work, and added professional learning as a benefit to the process (2016). In a later study, The Tennessee Department of Education (2017) discovered a statistically significant increase in improvements to teacher practice resulting from engagement in ePortfolio, however, in the same study, teachers' surveyed did not perceive an improvement in practice resulting from ePortfolio engagement. Researchers had not yet studied what type(s) of reflection Tennessee fine arts teachers engaged in, or how the teachers perceived development of their instructional

practices as a result of the Tennessee ePortfolio teacher evaluation system. The rationale of this study was to fill a gap by exploring how seven fine arts teachers engaged in ePortfolio evaluation in Tennessee described their reflection, and how they perceived their development professionally.

### **Definition of Terms**

The following definitions will assist the reader in understanding the context of concepts investigated within this study.

***Andragogy.*** Adult learning theory, which states that adults seek to apply learning to their immediate situation (Hagen & Park, 2016).

***Artifact.*** A selected object, work sample, digital image, video, or audio recording, that assists in illustrating the learning process in a portfolio (Abrami & Barrett, 2005; Barrett, 2010; Milman & Kilbane, 2005).

***Digital native.*** The generation of students who have grown up with technology (Prensky, 2001).

***ePortfolio.*** A portfolio contained in a digital format instead of on paper (Barrett, 2000; Barrett, 2010; Brown, 2009; Pitts & Ruggirello, 2012).

***Formative assessment.*** “a process that engages teachers and students in gathering, interpreting, and using evidence about what and how students are learning in order to facilitate further student learning during a short period of time” (Klute, Apthorp, Harlacher, & Reale, 2017, p. i).

***GLADiS.*** “Online automation for school districts seeking to incorporate portfolio-based assessment” (The GLADiS Project Online, 2013).

**High Impact Practice (HIP).** Widely tested teaching practices in the university setting that have been proven to be effective in elevating performance in a variety of outcomes of students from many backgrounds (Eynon & Gambino, 2017).

**Introspection.** “refers to thinking about ourselves, our thoughts or feelings...does not involve validity testing of prior learning” and is therefore non-reflective” (Mezirow, 1991, p. 107).

**Peer Reviewer.** A content specific teacher in the Tennessee Student Growth Portfolio system who has been identified as exemplary by the district or state, and serves on a blind committee to review and score teacher portfolios (Tennessee Arts Growth Measures, 2011) .

**Premise Reflection.** Premise reflection is analysis of one’s perceptions through examining validity of those perceptions, resulting in growth (Mezirow, 1991).

**Process Reflection.** Reflection that occurs when one discerns impact of steps in a process (Mezirow, 1991).

**Reflection.** The conscious scrutiny and exploration of what is known and the testing the validity of our existing meaning schemes, allowing discovery to transform our perspectives (Dewey, 1952; Mezirow, 1991; Schön, 1987).

**Standards-based assessment.** The assessor must “analyze the meaning of each standard and determine what evidence best reflects achievement of that specific standard” (Michael, Webster, Patterson, & Laguna, p. 277, 2016).

**Value Added Measures (VAM).** Assessing for “student test performance on standardized tests compared to an expected growth trajectory” (Jackson & Remer, 2014, p. 3).

## **Assumptions, Delimitations, and Limitations**

**Assumptions.** Based on the literature review, it was assumed that teachers engaged in reflection as a result of engaging in ePortfolio evaluation. It was assumed that teachers had experienced professional growth as a result of the system. It was assumed that participants would have opinions and stories about ePortfolio assessment as it related to their teaching and growth. After three years of participation in an ePortfolio evaluation system, it was assumed teachers had adequate experience and would be able to articulate their perceptions of how ePortfolio evaluation impacted their teaching.

**Delimitations.** This study was delimited to teachers with a minimum of three years participation in the system who also served as peer reviewers. Because this system started with fine arts teachers, they had the most experience in the system. Therefore this study was delimited to fine arts teachers in one large district in Tennessee.

**Limitations.** There were several study limitations. The timeline offered of a total of four months to conduct and analyze the research, and write the findings, which is a limited window of time. The sample size was limited to seven teachers. The teachers were all from one school district; therefore there was a lack of geographic diversity in the sample. Portfolio reviews were to include three years; meaning two of those years were retrospective. This could have resulted hindsight bias or forgetting what occurred two years previously. The role of technology and the transfer of this system from the GLADiS platform to the Educopia platform was a limitation due to teachers' inability to access GLADiS at the time of the study. In this design, an initial-written eInterview started participants on a path of reflection regarding their experiences with ePortfolio without the physical presence of the researcher. This allowed for reflection about

the subject of the research to occur prior to the face-to-face interview. Reflection of the participant could have impacted the findings in the study.

## **Chapter 1 Summary**

Through a qualitative case study consisting of an eInterview, a digital interview, and a review of participants' ePortfolios, evidence was gathered surrounding professional growth and reflective practice from fine arts teachers' engaged in Tennessee's ePortfolio evaluation system. Qualitative data was collected and analyzed through the frameworks of Schön's (1983, 1987) theory of reflection-in-action and reflection-on-action, and Mezirow's (1991) Transformative learning theory. Blending these frameworks, which reside under the umbrella of constructivist learning theory, which Bruner described as learners as creating their own knowledge, (Mohapatra, Mahapatra, & Parida, 2015) provided a context of the role ePortfolio played in teacher evaluation and development.

Chapter 2 provides the reader with a review of the literature in the areas of portfolio evaluation, ePortfolio, and teacher evaluation. Chapter 3 outlines the methodology for this study in detail. Chapter 4 reports the analysis of the data collected in the study, and Chapter 5 summarizes the study and addresses the findings.

## Chapter 2: Literature Review

### Introduction to the Literature Review

This chapter outlines several elements related to ePortfolio. The categories of portfolios (including showcase portfolios, evaluation portfolios, and assessment portfolios) are explored in detail. The evolution of ePortfolio in the literature, beginning with the first documentation of ePortfolio used in the field of education in the form of the audio-visual portfolio, is explored in this chapter. This chapter goes on to explore the evolution of the form and format of ePortfolio as technology evolved. This chapter also explores a blended conceptual framework of Mezirow's (1991) Transformative learning theory and Schön's (1983,1987) theory of reflection-in-action and reflection-on-action will be explored, along with methodological approaches to investigating ePortfolio applications.

**Evolution of portfolio in the literature.** The earliest documented form of portfolio used in education is the audio-visual portfolio, a term coined by Williams in 1979. Perhaps the strongest definition of the early teaching portfolio was provided by Wolf and Dietz (1998) who noted portfolios as containers that elevated assessments of teacher and student performances based on a variety of artifacts collected over time in authentic settings. Paper portfolios and ePortfolios sometimes serve the same objective, however, ePortfolios differ from paper portfolios because they allow for inclusion of video, audio, and are able to be instantaneously shared. The most notable difference between a paper portfolio and an ePortfolio is the visual presentation (Reynolds & Patton, 2014). Since inception, portfolios have evolved in education to be identified as a High-Impact-Practice (HIP) in university teaching (Chen, Kuh, Penny-Light, Rhodes, & Watson, 2016; Eynon & Gambino, 2017). Eportfolios have been used in the university setting in different ways to promote growth and development of critical thought,

largely due to the reflective element associated with engagement in development of an ePortfolio (Eynon & Gambino, 2017; Firdyiwiek & Scida, 2014; Landis, et al. 2015). This dissertation study explored the ePortfolio's use in the K–12 setting as a teacher evaluation tool, specifically with fine arts teachers in one public school district in Tennessee.

There are different uses for portfolios; essentially a portfolio is a tool that can be applied to a variety of purposes. A major distinction exists between a showcase portfolio and a process portfolio. A showcase portfolio includes final products. A process portfolio illustrates the steps a learner engaged in leading up the product and includes reflection on the process and learning that occurred (Barrett, 2010; Reynolds & Patton, 2014). A learning or process portfolio displays more than mastered skill, therefore it can serve as a tool for learning. A process portfolio can include developing skill sets, along with reflection about the learning that occurred (Bullock & Hawk, 2010; Eynon & Gambino, 2017; Reynolds & Patton, 2014). The process of developing an ePortfolio is not simply loading artifacts into an on-line platform. EPortfolio allows for complex and integrative learning by providing a framework for reflection and connection across disciplines and serves as a tool for evaluation while promoting meta-cognition (learning about and reflecting upon one's own thinking) (Eynon & Gambino, 2017; Reynolds & Patton, 2014).

**Categories of portfolios.** Organizations create portfolio designs, which contain different elements depending upon the requirements of the evaluation. Three categories of portfolios in education have emerged, and will be explained in this chapter. A showcase portfolio (Barrett, 2010; Abrami & Barrett, 2005) is used primarily to gain employment and is presented to an external audience. A process portfolio is used as a reflective tool for development (Barrett, 2010; Abrami & Barrett, 2005; Wolf & Dietz, 1998) and is primarily developed for an internal audience. A process portfolio contains selected artifacts as evidence of the different steps in the

process that led to a product. An evaluation or assessment portfolio is used to illustrate progress towards a goal that can be assessed (Barrett, 2010; Abrami & Barrett, 2005).

The audience a portfolio is developed for impacts the thinking and reflection of the learner (Ramirez, 2011). The evaluation portfolio can be developed either for an internal audience, such as a principal, mentor teacher, or professor, or an external audience, such as an employer, or a public on-line community. Additionally portfolio development can result in the learner experiencing meta-reflection through the development process. Ramirez (2011) explains when the creator of the portfolio experiences self-as-audience it becomes an auto-performance. In this role, “the student constructs, tests, and revises self for representation of him/herself to others” (p. 2). By stepping outside oneself and projecting self and learning into a digital environment, metacognition (thinking about thinking) and meta-reflection (reflecting about reflecting) occurs (2011).

**Showcase portfolio.** A showcase portfolio is a form of evaluation portfolio in which the creator’s aim is to prove they are capable of a certain level of work to an external audience; the process the creator engaged in to learn the skill is not documented in a showcase portfolio. Instead of documenting process, a showcase portfolio is used to display achieved skills through showing the best examples of end products selected by the person who developed the portfolio (Williams, 1979; Abrami & Barrett, 2005). This type of portfolio shows an employer what the applicant has accomplished as an indicator of what the applicant is capable of creating. A showcase portfolio does not show not how the work was accomplished. A showcase portfolio is used for summative assessments and job interviews, especially for artists, writers and designers (Barrett, 2010, Ramirez, 2011, Reynolds & Patton, 2014). In education, a showcase portfolio for

a job interview might contain final lesson plans, completed student work, letters to parents, and any final product related to the job of teaching (Bullock & Hawk, 2010).

***Process portfolio.*** A process-portfolio or process portfolio (Abrami & Barrett, 2005; Gardner, 1995) shows several steps of development before completing a polished product. The learner's thought and reflection is illustrated through specifically selected artifacts that outline the process (Barrett, 2010; Eynon & Gambino, 2017; Reynolds & Patton, 2014). This can be compared to showing one's work on a complex math equation, sometimes even including errors and corrections of those errors, as opposed to simply showing the answer. A pre-service teacher portfolio may contain developing skills in lesson planning, classroom management, unit plan development, and reflective writings about the work. Bullock and Hawk (2010) outlined examples of possible contents of a working teacher's portfolio. Artifacts illustrating attempts and mastery of various evaluation domains, a classroom management plan, parent communications, unit and lesson plan samples may be included. The content largely depends on the requirements of the evaluation. The selected artifacts serve as evidence of teaching and should be coordinated and connected through inclusion of reflection (2010). Bullock and Hawk (2010) described a master teacher's portfolio for national board certification. This type of teaching portfolio would include evidence of commitment to specific domains such as student learning, pedagogical mastery, assessment skill, growth in practice through systemic development, and evidence of collaboration in learning communities. These teaching portfolios are examples of process portfolios which serve as a learning tool aimed at illustrating and prompting growth (Abrami & Barrett, 2005; Eynon & Gambino, 2017; Gardner, 1995). Reflection about the stages of development the learner experienced in action is a necessary component to learning and development in a process portfolio (Bullock & Hawk, 2010; Eynon & Gambino, 2017; Reynolds

& Patton, 2014). Learning is made visible through digital media, photographs, illustrations, and graphics (Ramirez, 2011, Eynon & Gambino, 2017). Specific artifacts relating to different stages of development are selected to archive the process, which the creator reflects upon as part of the content (Eynon, Gambino, & Török, 2014; Ramirez, 2011). The narrative component of the Tennessee Evaluation System coupled with artifacts showing students in process at two different points in time caused that evaluation tool to fall, at least partially, into the process portfolio category.

*Evaluation portfolio.* Assessment or evaluation portfolios may either be process oriented (process portfolio) and formative in nature, or showcase oriented (showcase portfolio) and summative in nature (Abrami & Barrett, 2005). Evaluation and/or process portfolios can overlap if the portfolio's purpose is to evaluate both the process and the product. Evaluation of the process (formative assessment) and showcasing the final product (summative assessment) can both occur in teaching portfolios. The focus of this study, the Tennessee Student Growth model of ePortfolio, is a process portfolio used as an evaluation tool; this is an example of an ePortfolio application with both a formative and summative use. When a learner develops a process portfolio to illustrate growth, examination of process is often the driving force behind the selection of artifacts. Therefore the selected artifacts show some steps in the process leading to the final product. However, if the intention of the portfolio is to showcase final products (such as an artist portfolio) the products become the force behind artifact selection, regardless of how the product is arrived upon. Artifacts illustrating the steps toward development are not included in a showcase portfolio. Therefore the objective determines the pathway of the work in developing the portfolio (Barrett, 2010). When both process and product are combined, the portfolio may be referred to as an evaluation portfolio.

The applications for assessment portfolios are varied and are often based on pre-dictated competencies that are expected to be reached, and are illustrated through the portfolio. In the Tennessee ePortfolio Evaluation four collections of artifacts representing two points of time, which show student growth in three categories of student levels (emerging, proficient, and advanced), from three of four domains found in the content standards, are the criteria for submission. While the narrative component may have allowed for some explanation of process, the evidence collections do not show teaching processes, they illustrate growth by showing two points in time in the student's work. The teacher's work is presumed by seeing illustrated evidence of student growth. This element is a showcase portfolio approach, however, because the requirement involves student samples from two points in time to illustrate growth, this model also has process-portfolio elements. The narrative component would be an additional process element. Therefore the Tennessee ePortfolio Evaluation system was an example of a blended portfolio design intended for an internal audience of peer reviewers.

If an assessment portfolio is created for an external audience, such as an employment interview, the goals are often more clearly defined and are dependent upon the position. An artist would, for example, interview with a showcase portfolio, because the process they used to reach the product is less important than the product itself. For writers, artists, and designers a job interview may include showing their skill through sharing a showcase portfolio of their work (Ramirez, 2011, Reynolds & Patton, 2014). The showcase type of evaluation portfolio rarely deals in process, and is product-oriented.

In a university admissions interview setting, portfolios developed for external audiences serve prospective students in presenting their critical thinking skills to recruiters. This would require articulating elements of the process that led to the product they created. This is an

interview, evaluation portfolio that is used to examine the applicant's process. Kenyon and Meacham (2006) outlined specific guidelines for secondary theatre learners in development of process-based assessment portfolios as a tool for entry into university theatre programs. The choice of artifacts to support the articulation of process is key to a well-developed technical theatre portfolio for students seeking entry into university programs. Kenyon & Meacham explained, "The most important part of creating a portfolio is careful and considered selection of which material to include" (p. 2). The discernment required in the selection process promotes reflection, aids in examination of process, and ultimately serves as a tool for inquiry, investigation, and self-assessment. The students' ability to articulate their learning processes can give university recruiters much needed information about the student's critical thinking skills. In this way a process portfolio can double as an evaluation tool.

The use of evaluation portfolios in the field of education varies from place to place. Blending the evaluation portfolio with the process portfolio is not uncommon. In some places the teacher evaluation portfolio may illustrate more of the teacher's work than the student's work, similar to the university theatre admission portfolio's goal of making critical thinking visible, as described by Kenyon and Meacham (2006). Portfolios used in education as a teacher evaluation tool can serve as an accountability measure to ensure teachers are meeting standards. However, a teacher evaluation portfolio can also serve as a tool for growth by allowing for critical thought and reflection on processes related to teaching (Attinello, 2004; Barrett, 2000; Bond, 1999; Bratcher, 1998; Carney, 2006; Heath, 2002). Artifacts specific to teaching typically include lesson and unit plans in stages from paper to presentation, student assessment, and a reflective component (Bullock & Hawk, 2010). The audience is internal normally including a principal and/or mentor teacher. The viewer of the portfolio can follow the pathway of development of the

teacher's craft from beginning to the final product. EPortfolio (a digital version of a portfolio explained in more detail in the next section) allows for inclusion of multimedia artifacts and can make learning more visible (Ramirez, 2011). Bullock and Hawk (2010) described teaching portfolios as a professional assessment model, as opposed to traditional evaluation, which served as a bureaucratic model. Teachers take charge of their evaluation when developing a portfolio. As formative assessment for an internal audience, developing a portfolio allows learners to set their own goals, and challenge their perceptions through reflective practice (Attinello, 2004; Bond, 1999; Heath, 2002; Milman & Kilbane, 2005). EPortfolio also allows for a dynamic communication experience due to the multi-media element, and potential for a non-linear approach to telling one's story, unlike a paper portfolio that is laid out in book format. In any format, the use of portfolios as a tool to analyze and evaluate process, with the intention of professional development, provides a mechanism for teachers to reflect on craft, allowing for self-assessment, peer feedback, and examination their own teaching (Abrami & Barrett, 2005; Attinello, 2004).

*ePortfolio.* The work of Williams (1979) describes an early version of a multimedia portfolio that he called an audio-visual portfolio; this was the predecessor to the ePortfolio. With the introduction of the multimedia documentation of teaching skills, Williams (1979) laid a basis for the value of an employment portfolio as a means to illustrate skills through video and audio for potential employers to evaluate prospective teaching professionals. Portfolios in education have since evolved. A shift from paper portfolios to ePortfolios has been happening, as technology has emerged over time.

Digitally archiving materials in an electronic format is referred to as ePortfolio, web-portfolio, or digital portfolio, and allows for incorporation of a variety of artifacts including

video and audio of stages of the process of teaching (Abrami & Barrett, 2005; Milman & Kilbane, 2005). For the purpose of consistency, electronically formatted portfolios are referred to as ePortfolios in this dissertation. The use of ePortfolio allows for electronically formatted artifacts, including documents, photos, video, and audio, to illustrate the subject matter. Further, the ability to instantly share a link to an ePortfolio, and the elimination of the bulk of paper portfolios, causes benefits for the creator and the viewer. The incorporation of multimedia elements challenges us to interpret those images. When well executed, communication in a well-curated ePortfolio can increase communication of ideas, which can potentially increase ability and opportunity to reflect (Ramirez, 2011).

In their study of three university programs utilizing ePortfolios, Wilhelm, et al., (2006) explained the emergence of the ePortfolio as the container for artifacts: “As technology improved and became ubiquitous, students found it easier to archive projects, assignments and evidence of work in classroom, to reflect on these artifacts and to repurpose them for specific audiences and specific purposes” (p. 62). EPortfolios are not ideal in every circumstance. In the field of art, especially fine/studio art, the inability to have artifact texture (a screen is always smooth) is a deterring factor for some in using an ePortfolio. This is not a factor in most areas in the field of education, even of visual arts teachers, because their artwork is not being evaluated; their teaching students how to create art is the subject being explored. Goals of learners in the field of education vary greatly, therefore, portfolio applications in the field of education are varied. For the purpose of education, the bonus of including well-selected video samples of teaching and/or student learning, and the ease of transporting and sharing materials for evaluation and feedback, causes ePortfolios to be a valuable container of artifacts in the field of education, even in fine arts education.

Teachers entering the profession now more than ever before are experienced with the practice of ePortfolio development. The research illustrated that in the past decade, many colleges of education have required learning portfolios, often digital in format, from pre-service teachers (Albert, 2006; Darling-Hammond, Newton, & Wei 2010; Shepherd & Hannafin, 2008; Wilhelm, et al., 2006). Pre-service teaching portfolios are sometimes showcase portfolios that focus on teaching philosophy and documentation of practice; some pre-service teaching portfolios are formative in nature and are used as a tool to improve practice over time. Formative pre-service teaching portfolios are process portfolios that require students to document and reflect on authentic clinical experiences in classrooms, identify areas of needed improvement, set goals, and document growth over time (Shepard & Hannafin, 2008). EPortfolio usage in the university settings is increasing, especially since it has been identified as a High Impact Practice (HIP), with “more than half of college students nation wide report[ing] they have used ePortfolio at some point in their time at college” (Eynon & Gambino, 2017, p. 1).

EPortfolios provide a valuable tool for integrative learning, which adds to their value as a professional development tool for teachers. An integrative learning approach allows for breaking down of silos between content areas. Reynolds and Patton (2014) make an important point: “All learning is integrative learning” (p. 26). EPortfolio is a tool that allows the learner to make connections across contexts (2014). Making connections across contexts is the ability to learn in an integrative sense. For example, a fine arts teacher using ePortfolio as an evaluation method engages in meta-cognition in regards to their content area, in regards to pedagogy, and in regards to technology. These become three integrated content areas in the development of the ePortfolio. The exercise of producing a teaching ePortfolio in fine arts marries the content area knowledge and skill required of the artist, the skill required in the craft of teaching, and the skill of

multimedia production. This integrative practice develops the lifelong learner, and educates the whole learner resulting in not only intellectual investigation, but also personal discovery (Reynolds & Patton, 2014). Reflection necessary in ePortfolio development causes connections by helping the learner step outside the experience and consider collective meaning of multiple, seemingly disjointed experiences (Eynon, Gambino, & Török, 2014; Ramirez, 2011).

The use of ePortfolio as an evaluation tool for teachers entering the profession today is more possible than a decade ago. Today's new teachers are digital natives, and are less likely to be intimidated by technology applications. Many of the new generation of teachers entering the profession are skilled in reflective practice and documentation of their practice as a direct result of ePortfolio requirements in undergraduate programs. EPortfolio shells can be created using free and easily accessed services such as WordPress, Google Sites, Wix, or any web page creator. Many services exist for development of ePortfolios including TaskStream, Livetext, and The Virtual Anthology System (Wilhem, et al., 2006). The ease of creating a digital container for artifacts leaves only the question of which service best meets the needs of the user. In the 21st century, it is common for educators to own smart phones with photographing, videoing, and scanning capability. The technology is in the hands of educators to document practice for the purpose of reflection and professional growth. The opportunity to record, analyze, and reflect upon practice is readily available and could provide valuable professional development for in-service educators.

### **Reflective Practice and ePortfolio**

EPortfolios provide a unique container to house a variety of elements that can record evidence of Schön's (1987) concept of knowing-in-action happening in real time, including multimedia artifacts, making learning visible (Ramirez, 2011). Artifacts selected with

discernment can aid the reflective practitioner in the quest toward growth and development. Mezirow (1991) explains discernment as requiring openness, awareness of authentic, connected experiences, and even grieving, which can be a disorganization of what we believe we know, and a re-organization into a choice. Exercising discernment in selecting artifacts contributes to the quality of the reflection. The action of discernment can create dialogue between the ego, and other parts of one's self (1991). Inner dialogue based in discernment results in reflection as critical analysis, as opposed to introspection. Mezirow (1991) explained introspection as being aware of our own feelings, which does not involve validity testing and is not inquiry based. Combining inquiry with reflection transforms the professional development experience, deepening learning (Eynon & Gambino, 2017). Reynolds and Patton (2014) proposed that engaging in ePortfolio practice results in a mindful habit of reflection in practice. They described the process of reflection as being analytical, not requiring a re-telling of an event, rather an analysis, that involves sharing reflections with others to get a true sense of what was learned from the experience.

Examining the role that portfolio creation plays in development of teachers is not a new concept. Pitts and Ruggirello (2012) provided a framework for measuring professional growth through ePortfolio reflection in science teachers. Citing Lyons (1998), they defined reflective practice in teacher education as “the ways in which teachers critically interrogate their teaching and learning how to teach, and as an outcome of this interrogation, consider how they might refine and improve their practice” (p. 51). Landis et al. (2015) included in the analysis of the role of reflection the idea that reflection is an individual practice, which happens as the result of a challenging experience. Reflection is personal in that it involves examining one's own perceptions, resulting in new understandings. These elements are aligned with Mezirow's (1991)

concept of premise reflection, which is transformative in nature. The role of reflection is a key in the professional development aims of ePortfolio evaluation. Firdyiwiek and Scida (2014) explained, “Teacher reflection can support this development by pushing teachers to confront prior assumptions about teaching and learning, to question their own teaching practices, and to inquire not just what works in the classroom, but also why it works” (p. 115). Making meaning through the practicing of mindfulness is an important component of reflection. Mezirow (1991) described mindfulness as the practice of observing different points of view and welcoming varied perspectives along with new information, and the focus on process over product. What was unknown was whether the requirement of an ePortfolio centered on student growth as a form of evaluation (and therefore an act of compliance) resulted in reflection, increased mindfulness, and/or professional growth in teachers who were participants in this study.

Mezirow (1991) and Firdyiwiek and Scida (2014) both cited Schön (1987) regarding the distinction between reflection-in-action, which occurs in the moment while teaching, and reflection-on-action, which involves analysis before or after teaching. Schön (1987) explained, “The student must learn operative listening, reflective imitation, reflecting on her own knowing-in-action, and the coach’s meanings” (p. 118). When reflection is defined and practiced as analysis of the craft of teaching, to discover what is not known, perspective shifts and transformation leading to growth and development in the teacher/learner can occur (Mezirow, 1991). Student growth can be evidenced through artifacts that illustrate progress in the state’s standards in various student populations (Tennessee Arts Growth Measures System, 2011). Is the documentation of student growth, coupled with reflection on the process, the action that led to the progress in students in Tennessee? Teacher’s descriptions of their own growth in the craft of

teaching as a result of premise, process, and reflection-in-and-on-action served as the framework for this study.

Reflection is thought to have benefit beyond the teacher's development, "If students observe their teachers engaged in projects, reflecting upon them, and keeping track of their own progress, such a model constitutes the most important lesson of all" (Gardner, 1995, p. 260). Teacher development through process-based ePortfolios might aid student development through modeling life-long learning and improvement of teacher craft by developing teachers as reflective practitioners. Because the Tennessee Student Growth system requires teachers to document student growth, it may be possible that students become more reflective as a result of their teacher's reflective practice. It is unknown whether fine arts teachers perceive impact on student growth as a result of their own reflective practice in developing ePortfolios.

Reflection emerges in the literature as an important element of ePortfolio, whether intended as an outcome or not. Landis, et al., (2015) discovered that university professors believed reflection played a valuable role in ePortfolio assessment use, even though it was not initially their primary motivation for ePortfolio adoption. The role of reflection on experiences, and examination of processes, was key to growth resulting from development of ePortfolios (Eynon & Gambino, 2017; Firdyiwiek & Scida, 2014; Landis, et al. 2015). Because ePortfolio evaluation is a process-based activity, the assumption in this study was that reflection was occurring for teachers as they engaged in the process. Duffy (2015) explained being a reflective practitioner involves "an honest accounting of the development that follows when one sets one's own ego aside in order to pursue a more truthful, vulnerable and student-centered practice" (p. 5). A reflective practitioner sets out to find what she does not know about her own practice through validity testing, and a reflective teacher is centered on student growth. Adopting an

inquiry-based approach is one key to reflection. Introspection does not involve validity testing, reflection does (Mezirow, 1991).

Schön (1983, 1987) explained that different types of reflection exist, including reflection-in-action, which is choosing an action in the moment, based on a meta-cognitive approach to thinking while working. Schön also explained reflection-on-action occurred after the action had taken place. Mezirow (1991) explained that these types of reflection lead to premise reflection, in which a learner's prior knowledge and perceptions are challenged, allowing practices to evolve. ePortfolio can allow for each type of reflection, through the process of selecting artifacts and discerning how to best tell the story of their practice. Reflection may be a type of professional development that holds potential for in-service teachers in examining and developing their practice. Examining one's own process in a reflective manner can result in constructing new knowledge (Schön, 1983, 1987; Mezirow, 1991).

### **Conceptual Framework**

The conceptual framework for this study is a blended framework of Schön's Theory of reflection-in action and reflection-on-action (1983, 1987) and Mezirow's Transformative learning theory (1991). These theories are both in the constructivist approach theorizing that learners create their own knowledge (Mohapatra, Mahapatra, & Parida, 2015). Goodwin and Webb (2014) outlined seven tenets of constructivism, which these two theories are rooted in. From Socrates, they noted knowledge is built and discovered by the learner. From Piaget, they discussed how understandings evolve as the learner gains new knowledge. From Dewey, they affirmed the importance of experience in learning. From Bruner, they added learning must be active.

ePortfolio is considered an active form of evaluation that promotes growth and development. It is assumed that development of an ePortfolio results in reflection, which promotes constructivist learning. It was unknown what types of reflection occurred, or to what extent the reflection impacted a fine arts teacher that developed an ePortfolio as a part of their evaluation. It was also unknown whether premise reflection occurred, which can lead to transformative learning. This case study sought to explore fine arts teachers' perceptions and descriptions of their own growth through ePortfolio evaluation within a blended conceptual framework of Schön's theory of reflection-in-action and reflection-on-action (1983, 1987) and Mezirow's Transformative learning theory (1991).

In this section, the concept of reflection is defined, beginning with Dewey, who was referenced by both Schön (1983, 1987) and Mezirow (1991) in their definitions of reflection. Explained later is Schön's theory of reflection-in-action and reflection-on-action (1987), and Mezirow's Transformative learning theory (1991), expanding upon initial definitions provided in Chapter 1. Lastly, the synthesis of these two theories into a blended conceptual framework for this study is described. Identifying reflection and growth that occurred for fine arts teachers through ePortfolio evaluation framed the analysis of participant's perspectives in this study.

**Dewey.** Dewey (1952) explored the concept of reflection. His work outlined the importance of developing reflective thinking and laid the groundwork for Schön and Mezirow. According to Dewey, reflection involves a conscious scrutiny and exploration of what is known. Reflective thought is sequential, in that one thought or idea spring boards to the next in a process of exploration (1952). Dewey's identification of reflection in learning processes was a foundation for parts of the work of Schön and Mezirow.

**Schön.** Schön's theory of reflection-in-action and reflection-on-action (1983, 1987) was a part of the conceptual framework of this study because it is grounded in reflective practice. Schön's theory makes the evaluator and the learner "partners in inquiry" (p. 181). Knowing-in-action requires the learner to reflect in the moment while experiences are occurring. This requires the learner to develop enough expertise to think on multiple levels simultaneously. Since teachers are certified as experts in their art form (in this case music, visual arts, or theatre) and pedagogy, different knowledge bases are applied as they engage in their work. Teaching requires a level of reflection in real time that involves evaluating and choosing "from alternative possibilities for action" (p. 182).

Reflection also occurs following an experience, as a form of analysis, which Schön called reflection-on-action (1983). Through reflective practice, often with a coach or peer reviewer, the learner can become aware of roadblocks preventing their own development (1987). With this awareness, a learner can take steps to experiment and explore alternative approaches (1987). Schön, in the spirit of constructivism, explained knowledge, craft, and skill are developed and constructed by the learner over time. In developing as a professional, the learner creates new knowledge through reflection both in the moment, and in post-mortem analysis (1987). More recent research stated that growth and development towards a greater capacity of knowing in action might occur through ePortfolio engagement (Eynon & Gambino, 2017; Firdyiwek & Scida, 2014; Landis, et al., 2015). "The purpose of reflection is to make connections among experiences, deepening continuities and empowering the meaning-making process" (Eynon & Gambino, 2017, p. 34). By empowering meaning making through examination of process, perspectives can shift. The case of fine arts teachers engaged in ePortfolio development for

evaluation, and the descriptions of types of reflection and growth that were perceived, were areas this study aimed to explore.

**Mezirow.** Transforming meaning schemes is one dimension of transformative learning. Meaning schemes were defined by Mezirow (1991) as our beliefs and attitudes. Meaning perspective is defined as our awareness of how and why we hold certain meaning schemes, and how our assumptions and experiences limit our perceptions of the world around us (1991). Perspective transformation is rare according to Mezirow. Premise reflection, according to Mezirow (1991), is reflecting about why we hold certain perspectives, and the analysis of consequences of our perspectives. Premise reflection can lead to evolving meaning schemes, and perspective transformation.

The process of transformation involves ten phases: disorientation, self-examination, critical evaluation, recognition of needed change, exploration of options, planning, acquisition of new knowledge towards the goal, trying on new roles, building competence, and a reintegration of the new perspective (1991). It was unknown what type of reflection fine arts teachers involved in ePortfolio evaluation experienced, and whether transformation of either meaning schemes or perspectives occurred as a result. Mezirow defined growth resulting from reflection as premise reflection. Premise reflection is analysis of one's perceptions, and results in growth (Mezirow, 1991). Mezirow defined process reflection as reflection that occurs when one discerns impact of steps in a process (1991).

It is important to keep in mind that not all thinking is reflective. Mezirow made a distinction between cognition, introspection, and reflection (1991). Cognition, which is applying pre-learned knowledge without critical analysis, is non-reflective. Cognition relies on applying prior learning using our already existing attitudes and perspectives, without analyzing or

challenging those meaning schemes (1991). Meaning schemes were defined by Mezirow as our pre-existing attitudes and beliefs. Reflection involves testing the validity of our existing meaning schemes and allowing discovery to transform our perspectives (Dewey, 1952; Mezirow, 1991; Schön, 1987). Introspection, defined by Mezirow (1991) as thinking about feelings, does not involve validity testing of prior learning; therefore, introspection is not reflective. Reflection involves challenging and critiquing one's own knowledge and perceptions and developing new meaning schemes. Development of new meaning schemes is when transformative learning occurs, according to Mezirow (1991).

Mezirow's (1991) Theory of Transformative Learning for adult learners has a basis in premise reflection and process reflection. Mezirow explained that learning results from exercising discernment, which can be illuminating for the learner. The learner, through the process of discerning, for example, which artifacts best shows their process, develops presentational awareness. This includes awareness of one's own dialogue with ego, and of one's interaction within systems and culture (1991). In addition to discerning artifact selection, the actual act of process reflection results in discerning the best steps to take in a given circumstance. Process reflection was defined by Mezirow (1991) as an analysis of how we perform functions, which leads to deduction of the best steps, and induction by putting those steps into action. The cycle can be endless because we can then analyze the results of the process and continue to grow in process. This action of process reflection can work in tandem with premise reflection in which we critically analyze our meaning schemes (beliefs and attitudes) and perspectives (how and why we hold those meaning schemes), and deducing validity or invalidity through inquiry based reflective practice.

**Synthesis of Schön and Mezirow as a blended framework.** The theory of reflection-in-action and reflection-on-action from Schön (1983, 1987) combined with Mezirow's Transformative learning theory, (both rooted in constructivism) formed the conceptual framework for this study. The process of reflection aids in transformative andragogy. Mezirow (1991) explains: "Most adult learning involves values, feelings, ideals, moral decision making, self-concept, or other concepts defined by social norms" (p. 214). Through devising ePortfolios as evaluation tools, professional learning likely led to reflection, and a reframing of meaning schemes or perspectives. Transformative learning and perspective transformation resulting from varying types of reflection would be considered professional growth. Teachers might experience a level of reflection that Schön terms as knowing-in-action (1987) in which the competent practitioner interacts between the realms of professional knowledge and professional artistry, reflecting in real time to make adjustments to better reach their goal. Teachers may engage in reflection-on-action, by analyzing their teaching and experiences in the classroom, and analyzing their planning process. They may experience premise reflection in which they question their meaning schemes which includes attitudes and beliefs about teaching. This was the meeting place of Schön's theory of reflection-in-action and reflection-on-action (1983, 1987) and Mezirow's (1991) Transformative learning theory. The reflection that occurs, whether reflection-in-action, or reflection-on-action (Schön) could be process reflection or premise reflection (Mezirow). Analysis of ePortfolio evaluation perspectives through the lens of these types of reflection, and whether that reflection resulted in transformative learning from the descriptions of those engaged in ePortfolio development and evaluation, was the frame for exploring the research questions in this study.

## **Review of Methodological Research Literature**

**Case studies.** Schultz and Moss (2004) investigated decisions about evaluation of complex evidence of teaching. They presented two case studies of independently paired, trained readers reviewing teacher portfolios. In case study #1, three pairs of readers scored the same portfolio very differently. One pair of reviewers scored a portfolio with a final score of 1, another pair with a final score of 3, and the third pair with a final score of 4. Comments surrounding the scores contained discrepancies. One pair of reviewers stated the goals were too lofty, and another stated the goals were not ambitious enough.

Case study #1 documents the subjectivity in scoring for this particular portfolio evaluation model. In case study #2, the reviewers were more consistent and in agreement regarding the scores and feedback to the teachers. Grounded in narrative theory, the findings indicate that “even when readers generally agree on evidence and on relevant criteria, they can construct different ‘stories’ about the teacher’s practice” (p. 33). They made a point to outline ways to increase inter-rater reliability (increased standardization, breaking up sections of the portfolio to be rated by different reviewers, and developing more explicit criteria).

Schultz and Moss went on to make an important point: while this increased standardization may increase inter-rater reliability, they do not eliminate the challenge posed by ambiguous evidence. According to Schultz and Moss, “if we are right, some portfolios contain ambiguities and contradictions that make it difficult or impossible to ‘reasonably’ assign them a single score, efforts to always train readers to ‘correct’ scores may actually be counterproductive” (p. 34). Their qualitative case study uncovered differences in perceptions regarding the work of teachers and how scores may not capture the narrative behind the portfolio, and efforts to standardize scoring may lead to eliminating important, yet ambiguous,

elements of a teacher's work in the classroom. Examining the discrepancies in scoring from a narrative framework as in the cases of Schultz and Moss is an important concept. Participants in this study expressed concern about subjectivity in scoring which is explored in Chapters 4 and 5.

The seven participants in this study served as peer reviewers (meaning they were teachers that were certified by their district or state to review and score other teacher's ePortfolios). Their perceptions of the peer reviewer role was explored. In analysis, the synthesized frameworks of Transformative learning theory (Mezirow, 1991) and the theory of reflection-in-action and reflection-on-action (Schön, 1983, 1987) were applied. The results and analysis of the peer reviewer experience in Tennessee are also discussed in Chapters 4 and 5 of this study.

A case study to measure the impact of professional development and student learning of two junior high school teachers was conducted by Lin, Cheng, and Wu (2015). Their study explored the teacher's application of 54 hours of professional development into their classrooms. Lin, Cheng, and Wu engaged a variety of data collection methods including review of teacher ePortfolios. The portfolios were used in conjunction with student scores to determine success of implementation of teaching methods. While the focus of this study was to determine the effectiveness of Reader's Theatre as a pedagogical approach to learning, the ePortfolio was used as a tool to verify application of Reader's Theatre by the teacher. The outcomes for the application of Reader's Theatre were positive regarding impact on student learning, despite the fact that the role of the ePortfolio in this study was as an accountability tool. Absent from this study was investigation of the use of ePortfolio by the teacher to reflect on their professional development and student growth.

Bennett, Rowley, Dunbar-Hall, Hitchcock, and Blom (2016) explored ePortfolio effectiveness as a tool to develop personal identity in undergraduate music students. Their case

study included 220 students from four Australian universities. The study involved written reflections, surveys, and focus group discussions. Questions included topics involving ePortfolio impact on learning, and whether ePortfolio contributed to personal and professional identity. They further inquired about challenges students encountered in developing ePortfolios. Their findings showed that students viewed their ePortfolios as a “self-portrait” through which their digital “identity can be negotiated and constructed” (p. 118). They discovered that through ePortfolio development students were provided a pathway to engage in “future-oriented thinking” (p. 118).

**Surveys.** Zou (2003) assessed student attitudes toward portfolios through five constructs including: perception of usefulness, perception of importance, preference of portfolio as an assessment tool, intention for using portfolios in future teaching, and whether future teachers personally liked developing a portfolio. Zou concluded through the survey tool “the learning portfolio is much more likely than the assessment portfolio to trigger students’ interest and stimulate their motivation” (p. 80). She attributed this to the process of discernment required in selecting artifacts, which results in self-exploration and reflection. She also noted the value of autonomy in developing the portfolio as an important element (p. 80).

Attinello, Lare, and Waters (2006) asked “Do teachers and administrators perceive teacher portfolios as an accurate and comprehensive measure of teacher performance?” (p. 139). Their survey findings indicated that there is a positive perception of portfolios as a tool to measure performance; however, both teachers and administrators stated that portfolios do “not necessarily reflect all aspects of teaching” (p. 141). Attinello et al. (2006) surveyed teachers and administrators to discover if they perceived portfolios as a useful tool for self-reflection.

Findings indicated there was a positive perception regarding the use of portfolios as a tool; however, teachers perceived portfolios to be a less valuable reflective tool than administrators.

The introduction of portfolios as an evaluation tool, both in teacher evaluation, and in the classroom, requires a cultural shift towards a focus on process. When this shift occurs, the time spent reflecting on process results in growth and development. This requires some organizational change to occur in order to accommodate ePortfolio as a tool. Lacking still are structures within most organizations that embrace the complexity of ePortfolio initiatives (Eynon & Gambino, 2017).

Surveys were also used by Strawhecker, Messersmith, and Balcom (2008) for their research regarding the role of electronic portfolios in the hiring of K–12 teachers. They collected data through a 19 item survey. They cited that no previous portfolio study was conducted using a survey. This was 2008, however, and now, a decade later, many surveys regarding portfolio usage have emerged. Their survey included demographic questions, Likert Scale questions, items for ranking, and open-ended questions directed toward administrators and their perceptions of the value of the use of portfolios in hiring decisions. One finding of this study was that administrators noted that portfolios served as a valuable tool to assess organizational skills of candidates.

**Qualitative and mixed method study samples.** A qualitative study by Milman and Kilbane (2005) investigated digital teaching portfolios as catalysts for fostering authentic professional development. Using a framework of symbolic interactionism and the premise that meaning is produced through social interaction, Milman and Kilbane explored a variety of data sources, including document analysis of teacher ePortfolios and reflections, and phone interviews ranging from 20-30 minutes in length. Participants were teachers enrolled in a

graduate program and in an elective ePortfolio course. Findings illustrated the process of creating the portfolio was meaningful because it caused the teachers to learn more about technology, and prompted them to apply ePortfolio into their own classroom with their own students. While some teachers expressed a desire to maintain their portfolios beyond the course as a personal professional development tool, this sentiment was not unanimous. Some wanted to maintain ePortfolios beyond the course as a tool for interviewing for other positions. The focus and findings in this study showed a course that taught teachers how to create an ePortfolio, therefore increasing their knowledge of technology associated with ePortfolio. Not only did teachers express increased knowledge of technology, but some also expressed engagement in premise reflection as a result of examining their teaching practices through artifact collection.

Abrami et al. (2008) and Meyer, Abrami, Wade, Aslan, & Deault (2010) engaged in mixed-methods studies exploring the role ePortfolio can play in self-regulated learning. Combining surveys of teachers, and with structured analysis of student portfolios, the study involved a specifically identified focus group of students. Abrami et al. (2008) and Meyer et al. (2010) segmented classrooms into low, medium, and high implementation classrooms based on their use of ePortfolio. In both studies they found that in medium and high implementation classrooms student literacy skills and ability to self-regulate learning was improved. They also noted that the desire of the participants was a factor in the success of the ePortfolio application and in the ability to self-regulate learning. Abrami, et al. (2008) and Meyer, et al. (2010) made an important point: the ‘will’ in self regulated learning and implementation of ePortfolio is as important as the technological ‘skill’ of the participants.

**Tennessee student growth portfolio report.** A 2017 report specific to the model explored in this study explored four questions:

1) What is the alignment between teachers' portfolio scores and their average observation scores? 2) Are teachers' overall evaluation scores higher or lower if they use portfolios as individual growth measures, rather than relying on school-wide growth measures? 3) Did participation in portfolios lead to improvements in teaching practices? 4) Do teachers who participate in portfolios have more supportive views of the teacher evaluation process? (Tennessee Department of Education, 2017)

Fifty percent of teachers received a higher evaluation score by replacing the school's standardized test score with their ePortfolio score. It is important to note this study indicated, "Portfolio users [as compared to non-users] saw the greatest improvement on the thinking, activities and materials, and problem solving indicators" (p. 5). Teachers however did not regard portfolios as a valuable tool for improvement, despite these findings. The 2014-2015 Tennessee Educator Survey indicated 69% of respondents perceived the ePortfolio to contribute to improvements in their teaching, while 67% of teachers that opted out of ePortfolio evaluation reported improvement in their teaching. Therefore, at the time of the 2014-2015 survey, teachers were not necessarily attributing additional gains resulting from ePortfolio evaluation involvement, as compared to evaluations based on observations and test scores. This is a gap that warranted exploration. This study sought fine arts teachers' perceptions of ePortfolio participation, as it related to professional development, through the lens of Schön's theory of reflection-in-action and reflection-on-action (1983, 1987), and Mezirow's (1991) Transformative learning theory.

### **Review of Methodological Issues**

**ePortfolio research issues.** Many questions arise regarding the applications of ePortfolios across the curriculum, and across contexts (Chen, Garrison, Rhodes, & Watson,

2014). The main peer reviewed source for ePortfolio research, the International Journal of ePortfolio, provided a strong cross section of the research beginning with its inception in 2011. In reviewing submissions since 2011, there were reviews of the literature that stood out. Chen, et al. (2014) stated, “The most common methodologies employed by authors included case studies, focus groups, surveys, and rubrics” (p. 2). In addition to the journal as a comprehensive overview of current ePortfolio research, Bryant and Chittum (2013) scoured additional peer-reviewed journals published between 1996 and 2012. Approximately 15% of the 118 articles included empirical data on student outcomes, and only two of the articles used a comparison/control group and valid and reliable measures. Eynon and Gambino (2017) cited Bryant and Chittum’s (2013) literature review and pointed out, “between 1996 and 2012, they found that most [published research studies on ePortfolio impact on student learning] were descriptive or self-reporting in nature” (p. 13). This was surprising to ePortfolio researchers, and indicated gaps in the research (Eynon & Gambino, 2017). The self-reporting conclusion indicated that survey was a common tool of ePortfolio researchers. Because the survey was so widely used, and limits the participant’s ability to contribute to the narrative, this study employed an eInterview with open-ended questions, a video interview, and a face-to-face portfolio review in an effort to provide rich and thick description of the findings.

**Teacher evaluation issues.** Growth-oriented teacher evaluation through the use of ePortfolio was an area lacking in research. In reviewing the research methodology of the few studies on ePortfolio teacher evaluation systems, the literature revealed that qualitative analysis in the form of interviews, often of principals’ perceptions, were most common (Attinello, 2004; Bond, 1999; Bratcher, 1998; Papay, 2012; Kraft & Gilmour, 2016).

When looking beyond practice in the United States, Chile provided an example of a standards-based ePortfolio teacher evaluation system model. In a review of the literature, Taut and Sun (2014) outlined a fair amount of quantitative empirical studies existed surrounding the Chilean National Teacher Evaluation System (NTES). Of 17 papers reviewed, “ten articles correspond to empirical studies carried out by researchers of the Catholic University of Chile” (p. 4). This served as evidence that there are emerging models for quantitative research of ePortfolio evaluation happening outside the United States. Unlike the United States, which has been bound to using student learning as an indicator in an evaluation system due to Race to the Top legislation, “in Chile student learning is not used as a direct indicator in teacher evaluation” (p.3). The Chilean system, based on Charlotte Danielson’s framework for teaching, outlines indicators that illustrate what good teaching should look like to the observer, along with a mixed methods approach to gathering data about the teacher’s performance through student surveys, classroom observations, and portfolios. There is a comparative difference between the Tennessee model and Danielson’s framework. Danielson’s framework is a Value Added Model (VAM) and is centered in teacher behavior; the Tennessee Model explored in this study is centered in student growth.

Smith and Kubaka (2017) outlined the difference between teacher appraisal (considered formative, to promote teacher development), and teacher evaluation (summative, often used as a tool for accountability). “The frustrations and failures of summative teacher evaluation systems led to the re-imagining of teacher appraisals in the 1960s and 1970s as a continual process that could provide more timely feedback to teachers” (p. 5). According to Popham (2013), Race to the Top legislation in 2009 led to a blending of appraisal and evaluation (as cited by Smith and Kubaka, 2017). The result was higher stakes in evaluation/appraisal for teachers. Citing Larsen

(2005) Smith and Kubaka define high stakes as being tied to pay increases and promotions. In reviewing 33 countries processes, they found that nearly all countries used student test scores as a factor in teacher evaluation in combination with other elements, which included, but were not limited to, classroom observations, self-assessment tools, and parent and student feedback. Smith and Kubaka explained in closing: “Literature suggests that appraisal should be thought of as a tool for professional development and not just an accountability measure” (p. 17).

Taylor and Tyler (2012) aimed to quantify long-term effects of teacher evaluations on performance and growth of teacher skill in the Teacher Evaluation System (TES) in Cincinnati. The results showed that teachers who were observed on multiple occasions and received substantive critical feedback from highly trained peer evaluators improved student success by up to 4.5 percentage points in student end of year grades (2012). The cost of the program was high however, at “\$7500 per teacher evaluated. More than 90% of this cost is associated with evaluator salaries” (p. 5). The findings illustrated that intentional and effective feedback provided by a well-equipped appraiser can serve as a form of professional development, and can significantly impact student learning. Taylor and Tyler pointed out another concern beyond monetary cost, in the re-purposing of master teachers to serve as peer evaluators. This practice can negatively impact student learning because the most effective teachers are now observing less effective teachers instead of teaching students.

**ePortfolio in practice.** In higher education, ePortfolio was named the eleventh High Impact Practice (HIP) by the American Association of Colleges & Universities in 2016 because of the positive outcomes resulting from university level student participation in ePortfolio development (Chen, et al., 2016). Chen, et al. explained ePortfolio as a “framework for organizing learning, not as a prescription for a single end product” (p. 65). The recognition of

ePortfolio as a framework and a High Impact Practice (HIP) was the result of evolving and more readily available technology. As technology became more readily available in the form of laptops, tablets, and smart phones, the use of ePortfolio in a variety of settings increased. Additionally the development of Web 2.0 platforms increased the ease and eliminated much of the cost of developing ePortfolios. The identification of ePortfolio as a High Impact Practice is due to use in universities, which resulted in increased study of ePortfolio in the past decade. While there was less research surrounding ePortfolio use in evaluation and development of K–12 educators, hundreds of articles and studies exist on the use of ePortfolios in undergraduate programs, including teacher preparation programs.

EPortfolio as a pedagogical tool in higher education allows for integrative learning. Integrative learning as defined by Reynolds and Patton (2014) includes accessing one's prior learning and applying it to present learning, and applying previous knowledge to new situations. Additionally, it requires one to be an active agent in one's own learning. Synthesis of ideas into new and varied applications requires trial and error, coupled with reflection. An ePortfolio provides a platform for documenting trial and error in the fine arts classroom, and then documenting student learning, and teacher reflection on student learning, as it relates to pedagogical practice. Student growth is the intended outcome. One might consider that teacher growth and development could be occurring simultaneously. Fine arts teachers' perceptions and descriptions of their experiences, in relation to synthesis of new ideas into practice as a result of engaging with ePortfolio evaluation, were an unexplored topic in the literature. EPortfolio as a topic is multi-faceted; as a platform ePortfolio is agnostic and can be applied across disciplines, content areas, and fields of study in an endless number of ways. Because ePortfolio has a

plethora of applications, specificity dictated that this study focus on ePortfolio use as a tool for teacher evaluation and professional development.

**The role of technology.** Evolution of technology over the past decade caused ePortfolio to become an affordable option for evaluation, and for designing systems for learning and growth. Web 2.0 tools (interactive blogging sites, wikis, and web development sites such as GoogleSites, WordPress, etc.), developed in the past decade provide a variety of contexts for learning, including individually generated content and learner facilitated growth. The development of Web 2.0 technology has created an ease and affordability for development of ePortfolios. Increased digital literacy has decreased the stress in developing ePortfolios, and has decreased the amount of time required to teach individuals the technology associated with creating ePortfolios. Cochrane and Flitta (2013) outlined the use of Web 2.0 technologies as evolving in three levels in undergraduate student learners. In the beginning, students were teacher led as they learned the technology. Eventually, students developed and created content. In the final stage, students learned independently as a result of ePortfolio development. Student ePortfolio development occurs through the use of smart phones, tablets, and/or laptops, and a variety of Web 2.0 technologies that allow for collaboration, creation or documentation of artifacts, and a platform for reflection. One can assume that similar stages existed for teachers as they developed ePortfolios for evaluation and professional development purposes.

In the system this study explored, teachers documented student growth alongside a state standards based curriculum (Tennessee Arts Growth Measures System, 2011). This model deviated from the use of standardized test scores. Since there is not a standardized test for arts areas, the system involved teacher selected, authentic samples of student work captured digitally from two distinct points in time. Digitally stored artifacts were not standardized test, single-day

snapshots, rather they were a purposeful sampling of well-selected artifacts from different periods of time in student development. Today's technology including digital photography, scanning, video, and audio recording allowed for student growth to be documented over time. Artifacts as evidence of growth were entered into a web-based system organized as an ePortfolio. The Tennessee Student Growth model originated in a platform called GLADiS and at the time of this study (2018) resided in a platform called Educopia. Tennessee had since changed the platform again and at the time of publication the new platform was to be Portfolium (Stearns, 2018). This evaluation system, in whichever platform it resided, served as an example of ePortfolio evaluation making use of today's technology.

### **Synthesis of Research Findings**

**Synthesis of ePortfolio research and teacher evaluation.** The report entitled *The Widget Effect* (2009) by The New Teacher Project outlined that 99% of teachers were rated as satisfactory in their evaluations (Weisberg, et al., 2009). This percentage was disturbingly high. Based on that report, concerns arose amongst policymakers and professionals in the field of education surrounding teacher evaluation reform (Jackson & Remer, 2014; Kuyper, 2015). The report recommended development of systems that would evaluate teachers based on their ability to promote growth in students. The report also recommended integrating evaluation systems as tools to determine what professional development teachers receive. Evaluation through ePortfolio may be one tool to speak to the goals the *Widget Effect* study put forward. While the Tennessee system was not intended to determine what professional development teachers needed, the portfolio development aspect itself was thought to serve as a form of professional development (Tennessee Department of Education, 2017).

According to the Tennessee Arts Growth Measures report (2011) measuring student growth through purposeful sampling of well-selected artifacts promoted teacher growth through reflective practice. Therefore, using ePortfolios as a teacher evaluation tool had been intended to serve both as a formative professional development tool and an evaluative tool simultaneously. A reflective component in an ePortfolio evaluation might serve growth in teacher competency because, as research indicates, reflection is a by-product of portfolio development (Eynon & Gambino, 2017; Firdyiwiek & Scida, 2014; Landis, et al., 2015). A standards-based structure of evaluation that includes a reflective component (because of the use of the ePortfolio format) may result in teacher growth as a result of that reflection.

The ePortfolio teacher evaluation system in use in Tennessee included elements found in Barrett's (2010) learning portfolio such as well-selected artifacts from different points in time, and (prior to the system being expanded to the entire state, which caused a shift in some elements of the system) there was a form of purposeful reflection through a narrative. These elements were applied to an ePortfolio evaluation tool for teachers. This was an extension of ePortfolio practice that had been injected into many universities across the country (Albert, 2006; Darling-Hammond, Newton, & Wei, 2010; Eynon & Gambino, 2017). The Tennessee model involved peer reviewers (Tennessee Arts Growth Measures, 2011). However, data from the Tennessee Educator Survey in 2014-2015 did not show notable differences in teachers' perceptions of their own growth as a result of being engaged in portfolio evaluation as compared to teachers engaging in traditional evaluation observations (Tennessee Department of Education, 2017). Because the majority of teachers surveyed had only engaged in portfolio evaluation for one year (since the official roll out of the Tennessee system was in 2013) it is possible not enough time was afforded for teachers to perceive growth. This study therefore recruited participants who had

three or more years involvement, in an effort to explore that hypothesis. The report from the Tennessee Department of Education (2017) suggested portfolios resulted in a more personalized evaluation system that served to measure teacher effectiveness while doubling as a tool to aid professional growth. Although teachers did not report perceptions of growth at the time, the system design was intended to promote professional development. This study investigated seven fine arts teacher's perceptions and descriptions of that claim.

Papay's (2012) research explored the challenges of teacher evaluation in the 21<sup>st</sup> century. Papay (2012) specifically explored Value Added Models (VAM), which emerged in the past decade and were statistical models focused on isolating each teacher's contribution to student growth. The Tennessee system had a student growth component that replaced the original Value Added element (the standardized test score) with the portfolio score as an option for teachers from non-tested content areas. Fine arts educators do not directly teach content tested in state standardized tests. Prior to the development of the portfolio system, fine arts teachers' evaluations included standardized scores as a component of their overall appraisal, even though they did not teach the tested content. With the inception of the ePortfolio component in place of the test score, the Tennessee system held fine arts teachers accountable for student growth in the arts content objectives, instead of the score from state standardized tests of other content areas.

The portfolio was designed to measure student growth from two points in instruction. Unlike a Value Added Model (VAM) that assigned a grade level standard test score as passing, regardless of the student's starting level of proficiency, the portfolio system measured two points of student growth in three levels which were identified by the teacher. The students were categorized based on their entry skill level as either emerging, proficient, or advanced. A work sample was scored between one and five for students within their level. The teacher then worked

to aid student growth two levels. Therefore, for example, a student may move from emerging level 3 to proficient level 1. That would be two levels of growth because they moved through level 3, 4 and 5 of emerging into proficient. A student scoring in the advanced category at the beginning of the year, as a level 5, would have entered with a mastery of the content. The teacher would not be content, however, to allow the student in that situation to simply maintain, instead, the state added two post-instruction level possibilities of a 6 and a 7, which encourages the teacher to extend the student learning beyond grade level, and encourages a growth mindset even for high achieving students. Beyond holding fine arts teachers accountable for growth in their content areas, the system also aimed to serve as a professional development tool for teachers (Tennessee Arts Growth Measures, 2011). The idea was that teachers were examining and documenting student growth, and therefore making discoveries about their teaching simultaneously. How teachers perceived this from a qualitative perspective was previously unknown. Analysis of their descriptions is explored in Chapters 4 and 5.

In the standards-based approach, teachers are evaluated based on “rigorous and data driven classroom observations in which expert evaluators assess a teacher’s practice relative to explicit and well-defined district standards” (Papay, 2012, p. 123). Standard’s based measures often involve a detailed rubric and trained evaluators who visit the classroom several times per year. Papay (2012) wrote, “Charlotte Danielson’s Framework for Effective Teaching pushed these conversations forward, and districts have begun developing instructional standards based on these frameworks” (p. 127). Despite rubrics, and standards, the human factor causes questions of evaluator bias to arise. The Tennessee system addressed this concern through a blind system that engaged trained peer evaluators who were identified as master teachers, who also participate in the ePortfolio system as a teacher, and have content area expertise. This study

sought teachers' perceptions surrounding professional development as it related to peer review, and this is discussed in Chapters 4 and 5.

Teacher evaluation can serve two overriding purposes: accountability or growth (Kraft & Gilmour, 2016; Papay, 2012). The accountability factor has led to a low level of trust between administrators and teachers surrounding evaluation (Kraft & Gilmour, 2016) and has led to a diminished opportunity for teacher growth. Papay (2012) wrote, "If a teacher evaluation is to improve student learning systemically, it must be used as a tool to promote continued teacher development" (p. 124). The goal of improving teacher practice through evaluation elicits a much longer-term positive impact on students. "By identifying areas in which a teacher succeeds or fails, an evaluation enables teacher to leverage areas of strength and remediate areas of weakness" (p. 133). Kraft and Gilmour (2016) advised the use of peer evaluators could allow for a higher level of trust between the evaluator and the teacher to promote professional growth. Evaluation as a tool for teacher development was supported by Taylor and Tyler's (2012) discovery that math teachers showed significant productivity gains in years following well-designed evaluations. Taylor and Tyler (2012) discussed the teacher self-reflection spurred by evaluation prompted teachers to develop new skills. They believed that peer evaluators resulted in teachers having a higher level of receptivity to the feedback they get in an evaluation. The Tennessee Student Growth ePortfolio model has been engaging peer reviewers since the inception of their ePortfolio system. Seven participants' perceptions of peer review in the Tennessee system are discussed in Chapter 5.

Establishing a system that involves a continuous cycle of development is a challenge in teacher evaluation. Another challenge is to shift the perception of teacher evaluation from "compliance to teacher development" (Kraft & Gilmour, 2016, p. 719). An additional challenge

is to ensure adequate time and training is provided to teachers and evaluators. It was unknown how teachers engaged in this system perceived their time was being used, and how they viewed the concept of compliance vs. professional growth in the work they engaged in surrounding the system.

Kraft and Gilmour's (2016) case study discovered the time consuming nature of face-to-face observations and meeting to review feedback put a strain on principals. Time was an issue cited in the literature in portfolio evaluation. Attinello's (2004) findings cited time as the most critical issue regarding portfolio evaluation implementation from the perspective of both teachers and administrators. Attinello explained that some teachers viewed the time spent on portfolio development worthwhile if it their principal viewed the portfolio as valuable, and if their principal dedicated time to reviewing its contents. The Tennessee Student Growth ePortfolio system maintained the element of administrator observation for some teachers, in addition to the ePortfolio. Time was a factor in participants' perceptions in this study and is discussed in Chapter 5.

### **Critique of Previous Research**

Much of ePortfolio research methodology at the time of this study was in the qualitative realm, centering on case studies and interviews. While statistically significant evidence regarding improvement in teaching was reported in the Tennessee Department of Education 2017 study, teacher's qualitative descriptions of improvement resulting from ePortfolio evaluation was not published. Statistically, teachers did not report high perceptions of improvement in craft as a direct result of ePortfolio evaluation, despite the quantitative data suggesting improvements in student growth. This disconnect was the part of the motivation for this study, and is important for understanding the data outlined in Chapter 4. This disconnect might also be important in

understanding the role of ePortfolio as a reflective tool in teacher evaluation, and the training and time needed to assist teachers in reaching their full potential to develop professionally as a result of an ePortfolio system. While Tennessee's system measured student growth directly through submission of artifacts illustrating student growth, in the Tennessee Department of Education (2017) study, it was reportedly unclear to teachers that they improved in their craft of teaching and reflection abilities as a result of ePortfolio evaluation. This was despite the direct impact on student growth and development shown through quantitative results (2017). This qualitative case study aimed to gather descriptive data from teachers engaged in the system for three or more years, to explore how professional growth and reflection occurred.

Bennett, et al. (2016) posed interesting questions regarding ePortfolio development as it related to identity development. It is not known if ePortfolio development by teachers impacts their perceptions of their identity. It is also unknown what teachers' perceptions are surrounding the creation of their own digital identity through development of ePortfolio. Undergraduate music students in Australia were found to hold a perception of digital self-definition through ePortfolio development. Self-definition as discovered by Bennett, et al. may be unique to undergraduate students who are by nature in the process of self-definition through the process of being an undergraduate student.

Attinello (2004) recommended a case study of teacher-portfolio development, which served as early motivation for this study. A case study combining interviews and portfolio reviews of in-service teachers' perceptions of professional development through their participation in ePortfolio evaluation could give insights into ePortfolio evaluation design. Strengths and weaknesses based on teacher user, and peer reviewer perceptions could aid in informing strategies for implementation of ePortfolio as an evaluation tool. Attention to design

could ensure it is growth oriented with a focus on improving teachers in their craft of teaching. Identifying patterns as to what pedagogical methods result in significant student growth was not revealed in the literature published to date surrounding ePortfolio teacher evaluation.

## **Chapter 2 Summary**

Dating back as far as 1952, John Dewey described reflection as a key tool for learning and development. Schön (1983, 1987) and Mezirow (1991) expanded on the roles reflection can play in their theories of knowing/reflection-in-action, reflection-on-action, and premise reflection resulting in transformative learning. Portfolios evolved over time to become tools that aided in reflective practice. Initially used in education as hiring tools, showcase portfolios evolved into learning portfolios, and eventually, with the incorporation of multimedia, being housed in containers on the web, ePortfolios. The literature surrounding ePortfolios indicated a lack of empirical evidence documenting outcomes of their use in the K–12 setting as a tool for growth for students, for teacher evaluation and for professional development.

At the turn of the 21st century there were some portfolio teacher evaluation pioneers (Attinello, 2004; Barrett, 2000; Bond, 1999; Bratcher, 1998; Carney, 2006; Heath, 2002), however in the past decade, research in the area of portfolio teacher evaluation diminished. In the college/university setting however, teacher-training programs increased ePortfolio use in the 21st century (Albert, 2006; Berg & Curry, 1997; Darling-Hammond, Newton, & Wei, 2010). Beyond teacher training programs, universities began to adopt ePortfolio development as a pedagogical practice, and identified it as a High Impact Practice (HIP) to increase reflection, integration of curriculum, and documentation of process in students across the curriculum (Eynon & Gambino, 2017). Studies that included K–12 fine arts teachers' use of ePortfolio as an evaluation and

professional development tool were difficult to locate in searches on ERIC, ProQuest, and other on-line repositories for peer reviewed research.

As a form of teacher evaluation, Tennessee put their ePortfolio model into practice for content areas that are not required to give standardized tests in 2011. This system was developed and piloted in fine arts, and later expanded to other non-standardized tested content areas. The Tennessee Student Growth model involved structured documentation through purposeful sampling of student work, and peer review by expert teachers in the same content area. (Tennessee Arts Growth Measures System, 2011). This model involved reflection in the form of discernment exercised through artifact selection, and a written narrative. The literature described reflection as the factor that contributed greatly to learning and transformation in thinking of the portfolio developer (Eynon & Gambino, 2017; Firdyiwiek & Scida, 2014; Landis, et al. 2015). The Tennessee model contained a method of gathering evidence of growth, and measuring teacher growth based on evidence of student growth through purposeful selection of artifacts that might have resulted in different types of reflection. In Chapters 4 and 5 the types of reflection participants described is reviewed.

A possible gap exists in the research surrounding the efficacy of ePortfolios as tools for professional development and evaluation of teachers in the 21st century in the K–12 setting. As digital natives who grew accustomed to developing ePortfolios in their undergraduate teacher training enter the teaching profession, a growth oriented evaluation system using ePortfolios could be valuable not only in evaluating teachers, but also in continuing their development as reflective practitioners and life long learners.

### **Chapter 3: Methodology**

This chapter provides a description of the methodology used in this study to explore fine arts teachers' perceptions surrounding ePortfolio evaluation. The Tennessee Student Growth teacher evaluation model was an ePortfolio evaluation model for teachers whose subject areas were not tested within the state or federal accountability system (for example, fine arts) (Tennessee Department of Education, Division of Data Research, 2017). The goal of this qualitative case study was to explore teachers' perceptions and gather their descriptions of engagement in ePortfolio evaluation as a professional learning tool.

The Tennessee ePortfolio teacher evaluation system could be a tool for reflective practice, and might be a transformative learning tool. Reflection involves testing the validity of our existing meaning schemes and allowing discovery to transform our perspectives (Mezirow, 1991; Schön, 1983, 1987). Premise reflection (analysis of one's perceptions, which can result in growth) can lead teachers to question their own teaching, what works, and why it works (Firdyiwek & Scida, 2014; Mezirow, 1991). This emergent qualitative case study explored seven fine arts teachers' perceptions and descriptions of the role ePortfolio evaluation played in their development.

This chapter outlines the plan for an emergent qualitative case study of a purposive sample of participants from a single school district using the Tennessee ePortfolio teacher evaluation system. An explanation of the conceptual framework, the instrumentation, data analysis and coding procedures, limitations, expected findings, and ethical considerations were included.

## **Research Questions**

The following research questions guided this study:

RQ1. What type(s) of reflection do fine arts teachers describe when developing ePortfolios for evaluation?

RQ2. How does the process of ePortfolio evaluation impact the craft of teaching in music? In visual arts? In theatre?

RQ3. How do ePortfolio evaluations double as a professional learning tool for a music teacher? A visual arts teacher? A theatre teacher?

## **Purpose and Design of the Study**

The purpose of this case study was to explore fine arts teachers' perceptions of their experiences in the Tennessee Student Growth model ePortfolio evaluation system as it related to professional growth. Through the lens of the theoretical framework, the role reflection played for each participant was explored. The initial system was developed by fine arts educators to serve as a teacher evaluation tool that doubles as embedded professional development (Tennessee Department of Education, 2017). The methodology selected was a qualitative case study.

Case study research involves a phenomenon within a real-life, contemporary context or setting (Creswell, 2013; Yin, 2012). Lievens (2015) explained that ePortfolios are unique when compared to other information gathering systems because they can be used to gather, organize and store qualitative, digitally stored data based on an employee's work and development over time. The Tennessee System of ePortfolio evaluation of fine arts teachers was a phenomenon that warranted attention of researchers due to its purpose of gathering and storing qualitative data over time as Lievens (2015) mentioned. Stories from participants gave a deeper understanding of fine arts teachers' experiences and perceptions of ePortfolio evaluation.

An abundance of research existed surrounding ePortfolio evaluation as a learning tool in the university setting (Albert, 2006; Eynon & Gambino, 2017; Darling-Hammond, Newton, & Wei 2010; Shepherd & Hannafin, 2008; Wilhelm, et al., 2006). Gaps exist in research exploring the use of ePortfolio as a technology-based learning tool for inservice teachers. While there are studies that have explored ePortfolio as an evaluation tool for inservice teachers (Attinello, 2004; Bratcher, 1998), a gap existed in the role ePortfolio evaluation plays as a professional development tool. More specifically, a gap existed in how ePortfolio served as a professional development tool in fine arts teachers. The 2017 report by the Tennessee Department of Education attested to the improvement of teacher observation scores of those participating in ePortfolio evaluation, however, the same report claimed teachers did not perceive that ePortfolios impacted their professional development.

To explore this discrepancy, seeking understanding about how participants interpreted ePortfolio experiences, and how they attached meaning to those experiences, was a goal of this qualitative case study (Merriam & Tisdell, 2016). The purpose of this study was not to quantify perceptions or measure growth, rather to explore the subjective perceptions of participants. One goal was to give voice to some fine arts teachers' lived experiences with ePortfolio evaluation. Stake (1995) explained "The intent of qualitative researchers to promote a subjective research paradigm is a given. Subjectivity is not seen as a failing needing to be eliminated but as an essential element of understanding" (p. 45).

The lenses of Schön's theory of reflection-in-action and reflection-on-action (1983, 1987) and Mezirow's (1991) Transformative learning theory served as a blended theoretical framework for this qualitative case study. These two theories were derived from the Constructivist premise that people create their own meanings based on their experiences. Premise reflection, perspective

transformation, knowing-in-action, and development of reflection-in-action and reflection-on-action are forms of professional growth. It was unknown if reflection was a perceived component of ePortfolio development for participants in this study. It was also unknown whether they would describe premise reflection resulting in transformation of their craft as a result of engaging in the Tennessee ePortfolio evaluation system.

This research was a single case study of arts teachers engaged in an ePortfolio teacher evaluation system. Yin (2012) explained case studies have embedded sub-cases. Within the larger context of the content area of fine arts, there were three embedded cases representing sub-categories within fine arts, which included theatre, music, and visual arts. Whether each sub-case would result in different or similar perspectives was unknown; some differences and similarities analyzed as a part of this study are explained in Chapters 4 and 5.

### **Target Population and Sampling Method**

Twelve qualified potential participants were contacted from elementary, middle, and high school fine arts teachers in one large, public school district in Tennessee. A qualitative case study does not seek generalizations from a large sample. Merriam (1998) explained that a small purposive sample is intentionally selected to gain in-depth understanding of a specific group, not to generalize findings. Seven of the 12 agreed to fully participate in all three phases of the study. The goal was to render perceptions of a participant engaging in ePortfolio evaluation and analyze described experiences relating to ePortfolio evaluation.

A purposive, non-random group of participants meeting the following criteria were selected:

- Participation in ePortfolio evaluation for three or more years,
- Teaching for three or more years in theatre arts, visual arts, or music,

- Willingness to complete an eInterview, video-conference interview, and face-to-face interview,
- Availability for a face-to-face interview during the week the researcher was in their city,
- Willingness to share ePortfolio data from three consecutive years, and
- Priority was given to individuals serving as a peer-reviewer for one or more years (Note: The Tennessee ePortfolio evaluation system involved master teachers who served as reviewers of peer teachers' ePortfolio submissions). The service as a peer reviewer indicated dedication to Tennessee's ePortfolio system.
- Individuals involved in the system from the beginning were given priority.

The study site was specifically chosen due to long-term (over five years) participation of fine arts teachers in an ePortfolio evaluation system, which evolved into the Tennessee Student Growth teacher evaluation model. Quantitative data showed teacher growth in the report from the Tennessee Department of Education (2017), yet teachers reported not perceiving growth in their practice. Authors of the 2017 study hypothesized that teachers had not been engaged in ePortfolio long enough to perceive growth. Recruiting teachers with longevity in the system for this study was intentional based on that hypothesis. Additionally, this study was qualitative, and sought rich descriptions of teachers' perceptions regarding their professional growth.

Fine arts teachers meeting the study criteria were sent an introductory e-mail invitation from a school district representative to gain permission for the researcher to contact them. Once the participant consented to be contacted, the researcher e-mailed an official invitation through a password-protected account created specifically for this study (see Appendix D). Willing participants responded, and engaged in a ten-minute call to review the consent form and time

commitment for each of the three phases of the study. Each participant signed a consent form prior to engaging in the study (see Appendix E).

### **Instrumentation**

This qualitative case study was emergent, meaning each data collection instrument built the protocol for the steps to follow (Lincoln & Guba, 1985; Merriam & Tisdell, 2016; Seidman, 2013; Stake, 1995). Three instruments were included for data discovery and design structure: (a) a digitally-administered written eInterview served as a foundation for the protocol for the next step (see Appendix A), (b) a semi-structured, face-to-face interview which was expanded and amended based on the coding results of the eInterview (see Appendix B), and (c) a face-to-face review of archival documents from ePortfolios (see Appendix C). The ePortfolios contained artifacts such as recordings of students acting, singing or playing instruments, or student drawings from two different points in time, selected to represent student growth as evidence of teaching (Robelen, 2013). These artifacts were coupled with a narrative summary written by the teacher for the years prior to 2018. (In 2018 the narrative component was eliminated as the state began scaling the system up into more content areas and school districts).

**EInterview.** An eInterview is an asynchronous interview (Merriam & Tisdell, 2016; Salmons, 2015). In this study, an eInterview was conducted first. The eInterview served as a baseline to gather initial attributes of teachers' perspectives in three elements of ePortfolio evaluation (a) reflection, (b) how the participant defined learning, (c) perceptions surrounding ePortfolio as it related to their professional practice (see Appendix A). Being written, the eInterview allowed ample reflection time for participants to consider questions and answer thoughtfully. "The asynchronous nature of e-mail can add reflection time to an on-line interview that would be unavailable in a face-to-face session" (Merriam & Tisdell, 2016, p. 186).

Initial eInterview data was reviewed and emerging patterns determined the questions for the face-to-face, semi-structured interview. Seidman (2013) explained that interviews occur progressively in emergent design. The rationale for selecting an eInterview as the first step in this qualitative case study was three-fold: (a) an initial, written eInterview would begin participants on a path of reflection regarding their experiences with ePortfolio, without the physical presence of the researcher. This allowed for reflection about the subject of the research to occur prior to the second, face-to-face interview, (b) participants were geographically situated hundreds of miles from the researcher; eInterview allowed for initial contact prior to face-to-face interaction, (c) participants engaged in written reflection as a part of ePortfolio evaluation. Due to the written narrative component of ePortfolio evaluation, participants were presumed to be accustomed to written reflection. The eInterview provided the baseline to develop the questions for the second, semi-structured, video-conference interview.

**Video-conference interview.** The second instrument was a semi-structured video-conference interview (see Appendix B) with each participant. Hancock and Algozzine (2017) explained semi-structured interviews are a method well suited to case studies. Interviews were audio recorded to prevent inaccuracies (Hancock & Algozzine, 2017; Merriam & Tisdell, 2016). A professional transcription service (Rev.com) transcribed the recordings of interviews. The choice to use a professional transcription service was based on advice in Merriam and Tisdell (2016). While one develops familiarity with the data through transcribing, the intent was to dedicate time to analyzing the data instead of transcribing (Merriam & Tisdell, 2016).

**ePortfolio collection review.** Up to three consecutive years of participant provided ePortfolio evaluation submissions were reviewed in a face-to-face meeting with each participant (see Appendix C). The document review was guided by the participant and included sharing of

parts of their narratives and showing me samples of artifacts in the form of video, still digital photography of student work, and sometimes Power Points explaining the work. Participants' presentations of their ePortfolios were recorded, transcribed, and coded (Merriam & Tisdell, 2016; Saldaña, 2016). The setting for the face-to-face review of materials was a quiet room within the community where the participants' lived to ensure privacy, quality recording, and convenience for the participant. Hancock and Algozzone (2017) explained a private interview location would increase the comfort of the participant to be open, and would assist in gathering rich and thick descriptions from participants. Patterns emerged, and were triangulated with interview transcript coding from the written eInterview, the video-conference interview, and the face-to-face ePortfolio review. Member checking of the participants' transcripts followed each phase of the study and ensured their perceptions were accurately portrayed (Yin, 2014).

### **Data Collection**

The eInterview was designed based on attributes defined in the literature (see Appendix A). The emerging attributes and themes in the eInterview determined the themes explored in the semi-structured, video-conference interview (see Appendix B). The researcher travelled to Tennessee to conduct the face-to-face reviews of ePortfolios (see Appendix C). Data was triangulated in the third step (analysis) of ePortfolio documents. Reviewing the ePortfolios with participants was intentional, to provide them opportunity to show specific elements of growth and explain their perceptions. This also allowed participants to illustrate differences over time and show discoveries in teaching. These three sources were used to explore the perceptions of the participants, through their own lived experiences of ePortfolio evaluation. The eInterview (Merriam & Tisdell, 2016; Salmons, 2015) was designed as an open-ended, structured, qualitative, written interview administered through Qualtrics. Due to the study site's Internal

Review Board restrictions, surveys were not allowed; eInterview allowed for some demographic data to be gathered, while adhering to the site's IRB policies (see Appendix A).

To prevent leading the participants, open-ended questions were used in the eInterview. Dillman, Smyth, and Christian (2014) explained administering the interview in writing requires participants to invest time and effort into their answers. This time was intended to result in a commitment of reflection and thought from the participants, which was successful. All seven participants committed fully to the eInterview process and provided rich and thick responses to the questions. Participants were informed their answers to the questions would determine the guiding topics for the video-conference interview. Explaining the importance of the eInterview as a foundation for the study was intentional to help motivate participants. Dillman et al. (2014) explained participants may need help understanding the importance of answering open-ended written questions well because they require extra time to answer. Dillman et al. (2014) cited an experiment in which researchers explained the importance of questions to the participants in which the result was longer responses. The second video-conference interview was semi-structured and allowed me to ask in-depth questions based on participants' responses from the eInterview. The questions were adapted based on the individual participant responses of the first eInterview (Seidman, 2013).

Data from eInterviews, transcripts from video-conference interviews, and transcripts from ePortfolio reviews were analyzed and coded. Patterns and themes were used to triangulate fine arts teachers' perceptions. Member checking occurred by e-mailing transcripts to participants for review following each interview and provided an avenue for validity (Creswell, 2013; Merriam, 1998; Merriam & Tisdell, 2016; Saldaña, 2016; Stake, 1995).

## **Identification of Attributes**

Attributes included (a) the role of reflection, (b) perceptions surrounding peer review, and (c) the direct impact of ePortfolio evaluation on perceptions of occurrences of reflection. It was important to remain open to attributes identified through coding as the case study emerged. First cycle coding of the eInterview identified participant driven attributes. From the first stage, themes of participants' perceptions emerged and were used to further develop questions for the semi-structured face-to-face interview. Once the first cycle of coding of all three data sources was complete, deeper analysis and a search for overarching themes occurred.

## **Data Analysis Procedures**

**Step one.** In a qualitative study of participants' perceptions, pre-coding cannot occur (Lincoln & Guba, 1985; Saldaña, 2016). The eInterview responses provided an opportunity to identify initial themes that emerged from participants' perceptions. Initial/open coding was helpful to recognize potential variety in teachers' perceptions, and In Vivo coding used their exact words as codes (Saldaña, 2016). The goal of this study was obtaining teachers' perceptions, therefore using exact and repeated words rendered perceptions accurately. From In Vivo, initial, and process codes, patterns and categories emerged. At this stage, a computer assisted qualified data analysis system (CAQDAS) was used to manage the data (Merriam & Tisdell, 2016; Seidman, 2013). Several CAQDAS systems were investigated and ATLAS.ti emerged as the system used for this study. One hundred and fifty-six initial codes emerged.

**Step two and three.** After initial coding of the data into 156 codes, codes were synthesized into categories. Fifty-six categories emerged and were organized in ATLAS.ti. Following the categorization of codes step three involved further organizing categorical codes into themes (Saldaña, 2016). Ten themes emerged and were organized in ATLAS.ti. The ten

themes were further organized into categories defined by each research question. Themes that did not align with research questions were cited in Chapter 5 for future study. Patterns in participants' perceptions emerged. Those patterns were organized into a reportable structure of themes organized under each research question.

### **Limitations of the Research Design**

The small sample size of seven participants made it difficult to rule out alternative explanations of the findings of this study. Transferability cannot be a concern for the researcher in a qualitative study, except regarding providing rich and thick description to aid the potential for transfer. The concern cannot be generalizing the findings to a wider population (Lincoln & Guba, 1985). In a qualitative study, the onus is on the reader to determine the transferability. By following the data, and providing readers with rich and thick descriptions, they can draw comparisons between this ePortfolio teacher evaluation system and their own situation (Creswell, 2013; Merriam, 1998). The initial, written eInterview placed participants on a path of reflection regarding their experiences with ePortfolio without the physical presence of the researcher. This allowed for reflection about the subject of the research to occur prior to the second video-conference interview, and the third face-to-face portfolio review. Reflecting on the process in advance of the video-conference interview and review of their portfolios as a result of the eInterview may have impacted the findings.

### **Validation**

**Credibility.** Credibility is also called internal validity (Merriam & Tisdell, 2016). External validity (or transferability) is not a goal of qualitative research. This must lie as the responsibility of the reader of this research (Merriam & Tisdell, 2016). Sufficient rich and thick description was provided through the combination of the written interview, the face-to-face

semi-structured interview, and the document analysis. The description was written with the goal that users can discern whether findings will transfer to their setting.

To aid in credibility, Creswell (2013) recommended qualitative researchers apply one or more validation methods. Two methods of validation are included: (a) member checking and (b) data source triangulation (Creswell, 2013; Merriam, 1998; Merriam & Tisdell, 2016; Saldaña, 2016; Stake, 1995). Member checking of video-conference interview transcriptions and portfolio review interview transcriptions by the participant aided credibility. Listening to the recordings several times ensured understanding and accuracy of the participant's responses. Transcripts were transcribed by a third party service (Rev.com) to aid credibility.

Participants were asked to review the transcripts, checking their perceptions were accurately transcribed within two weeks of completion of each interview. Member checking is the strategy of soliciting feedback from participants. Additionally members were provided rough drafts of the analysis to check. This method confirmed findings as accurate portrayals of participants' perspectives. Member checking was recommended by seminal qualitative research sources (Creswell, 2013; Merriam, 1998; Merriam & Tisdell, 2016; Saldaña, 2016; Stake, 1995). Data source triangulation was used to establish credibility (Stake, 1995). The analysis of eInterview responses, face-to-face interview transcripts, and review of portfolio submissions allowed for additional codes and triangulation of existing codes into themes. These three sources of data serve to crosscheck perceptions. Data source triangulation in serves as evidence that the findings were not cherry-picked (Merriam & Tisdell, 2016).

**Dependability.** Lincoln and Guba (1985) characterized reliability in qualitative research as dependability. This view is considered seminal to qualitative research (Merriam & Tisdell, 2016). Ample rich and thick description, validation methodologies, and adequate analysis and

coding aid the reader in determining dependability. Five specific standards outlined by Creswell (2013) were applied consistently throughout the process of this case study to ensure dependability of study findings. All levels of this study (questions, data collection, and data analysis) were driven by the research questions. Effort was applied to technical work surrounding data collection and analysis. Assumptions about ePortfolio have been made explicit, and the study of ePortfolio was supported by a strong review of the literature, which discussed, confirmed, and disconfirmed theories surrounding ePortfolio. Findings from this study may prove helpful to administrators considering ePortfolio as a possible evaluation system.

### **Expected Findings**

Naturalistic inquiry must be oriented in discovery. Therefore findings could not be pre-determined (Lincoln & Guba, 1985; Merriam & Tisdell, 2016). Based on the nature of qualitative research, this case study was designed to be emergent, and questions were adapted as discoveries occurred. Some assumptions existed based on an extensive review of the literature. One assumption was reflection occurred through the use of ePortfolio as an evaluation tool (Tennessee Department of Education, 2017). It was assumed participants were developing a habit of reflection based on an extensive review of the literature surrounding ePortfolio engagement, which involved analysis of a variety of databases including, but not limited to, ProQuest and Eric, on-line searches, and investigation of hundreds of sources cited within the literature. Research supported the assumption regarding the role reflection plays in ePortfolio engagement (Firdyiwek & Scida, 2014; Landis, et al., 2015; Pitts & Ruggirello, 2012). The findings of this qualitative case study resulted from the data collected from seven participants engaged in the Tennessee Student Growth ePortfolio teacher evaluation system. The meanings the participants brought to the research questions were the focus of the findings (Galletta, 2013).

## **Ethical Considerations**

Fundamental to the ethical considerations applied to this study was the researcher role as a guest in the participants' experience (Merriam, 1998). Participants' privacy was protected. This study involved participant perceptions of an evaluation method in their school district and throughout their state. Two Internal Review Board (IRB) processes, one with the school district and one with Concordia University–Portland, were completed prior to engaging in this study, which helped ensure protection of participants. Once IRB approval was granted, but prior to any collection of data, participants were sent an informed consent form via e-mail, which was reviewed and explained via a telephone or video-conference call (see Appendix E). The consent form revealed there were no significant risks for participants and their identity, campus, and school district remains anonymous. Participants entered the study understanding they could refuse participation at any time with no penalty. In advance, participants were informed that copies of all transcripts relating to their participation would be provided to them at their request. Participants were provided access to data for member checking (Merriam & Tisdell, 2016; Seidman, 2013). Participants were informed they could request the researcher withhold any data they do not want published (Seidman, 2013).

To preserve privacy, participants were randomly assigned a unique number (Dillman, et al., 2014) and were referred to as Participant One through Seven. Each participant was sent a link to the first instrument of data collection, an asynchronous, digital interview of open-ended questions, otherwise known as “eInterview” (Salmons, 2015). The eInterview was administered via a Qualtrics account, which ensured security of the data.

Recordings remain in a personally owned, password-protected laptop to ensure privacy and will be destroyed one year after the study is published. One back up of the hard drive of the

laptop is kept in a locked, fireproof cabinet in my home, and the back up recordings will be destroyed after one year. The only sharing of files was with a single, reputable, professional transcriber (Rev.com). Through member checking, participants were allowed to eliminate information they were not comfortable sharing publicly (Merriam, 1998; Merriam & Tisdell, 2016). None of the participants elected to eliminate data.

**Conflict of interest assessment.** The researcher was not connected to the school district, the study site, or the teachers who were study participants. The researcher had no financial or personal stake in the GLADiS, Educopia, or Portfolium platforms.

**Researcher's position.** The role of qualitative researcher is to serve as a conduit for participants' perceptions. Remaining conscious of neutrality, while remaining respectful and active as a listener was a goal in this study. Awareness of elements a researcher personally identifies with is important in qualitative research (Seidman, 2013). Listening closely to ask for clarifying statements and dig deeper into the perspectives of the participants was the goal (Galletta, 2013). Being conscious of one's own bias as a researcher was an important consideration (Creswell, 2013). This study was intentionally designed to explore a system that the researcher had no personal involvement with. Having previously developed, administered, and reviewed an ePortfolio system used in a Tier One research university for undergraduate and graduate theatre educators, the researcher had perspective of use of ePortfolio to assess action research occurring in teacher's classrooms.

The selection of a school district outside of the researcher's state of residence was intentional. Not being native to this ePortfolio evaluation process allowed a role as outsider. Not being involved in the evaluation, the work of the participants, or in implementation of an ePortfolio teacher evaluation framework outside of a university setting, created distance between

the participants and the researcher. This distance allowed for no personal connection or knowledge of the participants outside of the study setting. This study was designed in the K–12 setting so it would be outside of the researcher’s professional work with ePortfolios, yet still be within the researcher’s professional field of fine arts.

### **Chapter 3 Summary**

This study explored seven fine arts teachers’ perceptions of experiences relating to ePortfolio teacher evaluation, specifically related to professional growth. The methodology was an emergent qualitative case study. Constructivist learning theory through the lens of Schön’s (1983, 1987) theory of reflection-in-action and reflection-on-action, and Mezirow’s (1991) Transformative learning theory served as a blended framework for the design of this study. A purposeful sample of participants experienced in ePortfolio evaluation, with a preference for peer-reviewers who engaged in the Tennessee Student Growth system for three or more years, helped ensure rich and thick data could be collected. Care was taken to preserve anonymity, and member checking ensured accurately rendered perceptions could emerge based on the research questions.

Three instruments were applied to collect data: (a) eInterview provided a baseline of participant identified attributes and an opportunity for participants to reflect on the topic, (b) semi-structured video-conference interview provided rich and thick description from participants, and (c) analysis of transcripts from interviews and ePortfolio evaluation data triangulated the instrumentation. Data was coded in three steps, (a) initial coding, (b) second level coding to develop categories and (c) theme development. Member checking was employed to ensure validity. Chapter 4 presents participants’ ideas and experiences as related to ePortfolio evaluation, and their perceptions of the role of ePortfolio evaluation in their professional growth.

## Chapter 4: Data Analysis and Results

### Introduction

This was a qualitative case study of an ePortfolio teacher evaluation system that doubled as a professional development tool. Participants were seven fine arts teachers from a large public school district in Tennessee. The ePortfolio system in Tennessee served as 35% of teachers' evaluations, for teachers of non-tested content areas, which included fine arts, physical education, kindergarten, first grade, and world languages (Tennessee Department of Education, 2017). The remaining elements of evaluation included an administrator observation and student surveys. Districts opting out of participation in ePortfolio for their fine arts teachers' were automatically assigned their school's standardized test scores as part of the fine arts teacher's evaluations. According to the participants in this study, a range from 30% to 50% of a fine arts teacher's evaluation would be reliant upon the scores from tested content areas such as math and reading, if they opted out of ePortfolio participation. Therefore, the ePortfolio provided a vehicle for non-tested content area teachers to illustrate their own students' growth, in their own content area, across the domains of their state's content area standards. Essentially, the student growth ePortfolio score replaced the standardized test score in the teacher evaluation for non-tested content areas. A participant explained that because the district had a bonus-based pay incentive, the evaluation score is high stakes. Additionally, the teacher evaluation scores could be used to ensure employment in schools that were identified as low performing, adding to the stakes.

Participants consistently referred to their ePortfolio as a defense, such as a legal defense. One participant used the phrase gathering "a preponderance of evidence" to describe how he documented, selected, and assembled their artifacts to prove growth occurred. Another participant explained her campus had been "fresh-started", meaning the administration, teachers,

and all staff on campus were being replaced, due to the school being deemed low performing, as a result of state standardized test scores. In these situations, teachers with adequate yearly growth scoring a four or five (of a possible high score of five) on evaluations were able to interview to keep their job. Participant Seven in this study fell into this category and was able to remain on her campus despite the majority of teachers and all of the administration being replaced. She credited her high ePortfolio and evaluation scores to her job being preserved. She described it here:

The first thing the new principal asked for is, “I want your scores.” So, I gave them to her... I showed it to her and to...the principal at a high school in the school neighborhood, and he said, “Wow. Your scores are really impressive.” And I said, “Well, I’m not a level one. The school might be a level one, and some of these teachers might be a level one.” I said, “But I use the Fine Arts Portfolio. I’m a four. I’m an overall five. My portfolio is a four, so my key box data is a four. I am not a level one teacher.” And they were like, “Well, you can’t get rid of a four or five.” So, they rehired me to stay. So, it saved my job.

In reviewing her ePortfolio submissions, which documented exceptional levels of student growth, and based on her consistently high evaluation scores, and the fact that she was selected to serve as a peer reviewer in the system, it was clear that she was a master teacher. Without the data the ePortfolio system provided, she would not have had evidence in place to support being a high-level teacher, and would not have been re-hired to remain on her campus. Every participant explained that the ePortfolio system had saved the jobs of high performing fine arts teachers, especially those serving on low performing campuses who would have otherwise been released from duty based on their school’s low scores in tested content areas.

The Widget Effect study mentioned in earlier chapters, in which 99% of teachers were being rated as good or great (Weisberg, et al., 2009), created the understanding that there was a need for new evaluation systems that documented growth of students (Choi & Park, 2016; Kraft & Gilmour, 2016). The Tennessee ePortfolio system met this need. It not only documented student growth in place of teachers meeting an observation checklist centered on teacher behavior, it also provided an advocacy tool for teachers who previously were assigned a partial score based on standardized test scores of content areas they were not responsible for teaching. In a high-stakes education setting, because teachers in some situations might lose their positions as a result of evaluation, validity is an important factor (Smith & Kubaka, 2017). The participants in this study consistently explained that the opportunity to be measured on their own student's growth was preferable over accepting a standardized test score for content they were not responsible for teaching.

The following research questions guided this study:

RQ1. What type(s) of reflection do fine arts teachers describe when developing ePortfolios for evaluation?

RQ2. How does the process of ePortfolio evaluation impact the craft of teaching in music? In visual arts? In theatre?

RQ3. How do ePortfolio evaluations double as a professional learning tool for a music teacher? A visual arts teacher? A theatre teacher?

**Purpose and organization of Chapter 4.** The purpose of this chapter is to report the findings resulting from eInterviews, semi-structured video-conference interviews, and semi-structured face-to-face interviews involving review of ePortfolio submissions from each of the seven participants. This chapter outlines the role of the researcher, a description of the sample,

research methodology and analysis, and coding procedures. The results are organized based on the thematic analysis of seven fine arts teachers' perceptions.

**The role of the researcher.** EPortfolio is a practice the researcher was directly involved in developing and overseeing for a decade of work in higher education as a graduate and undergraduate program head. The researcher's role in this study involved examining personal bias resulting from experiencing ePortfolio professionally, and understanding the role ePortfolio played as a High Impact Practice (HIP) in the university setting. Transitioning the work from paper portfolio to ePortfolio in 2008, I witnessed the positive impact that ePortfolio development can have on fine arts teachers. The difference was, those teachers were also students in a graduate program, or undergraduate students training to become certified educators. They engaged in coursework and applied the work they explored with teaching artists into their own programs, using their classrooms as a lab setting for action research that was documented in their ePortfolio and submitted for feedback intended to stimulate professional growth. The use of ePortfolio unassociated with coursework was a different type of experience. My prior experience did not include an ePortfolio evaluation tool related to maintaining employment and gaining salary.

Experiences with K–12 fine arts teachers in the university setting sparked my curiosity regarding the role ePortfolios could play in the K–12 environment, particularly the role ePortfolios could play in professional growth outside of the framework of graduate coursework. The school district selected for this study was intentionally sought out to explore questions related to fine arts teachers' growth resulting from engagement in ePortfolio evaluation. Interest in this particular district and state was based upon the districts' long-term dedication to ePortfolio evaluation with fine arts teachers. This long-term commitment to ePortfolio evaluation

allowed this study to examine perceptions of participants who were involved in multiple years of engagement in ePortfolio as a process.

Due to positive professional experiences with ePortfolio and teacher development in fine arts, I, as the researcher, was conscious to carefully examine and continue to check personal bias in favor of ePortfolio to ensure neutrality in hearing and accurately reporting participant perceptions. Being conscious of one's own bias as a researcher is important to the study (Creswell, 2013). It is hoped that this study contains a balanced rendering of both the positive and challenging elements of ePortfolios for the seven fine arts teachers that participated. The goal was to accurately render their perceptions of growth, and frustrations they experienced, in relation to the research questions, about the impact of ePortfolio on their craft of teaching.

### **Description of the Sample**

A purposive, non-random group of seven participants emerged of 12 qualified educators that were invited to participate in the study. Participants had three or more years of experience as a teacher being reviewed through ePortfolio evaluation in Tennessee, experience as a peer reviewer, and availability for the three phases of the study. The performing arts advisor from the district's Curriculum and Instruction Department assisted in identification of eligible participants; participants were also encouraged to invite potential participants. Prospects were initially invited to participate by the performing arts advisor or participant; once they agreed to be contacted by the researcher, a more specific invitation was sent via a Gmail account created specifically for the study (see Appendix D). All e-mail correspondence related to the study occurred through the Gmail account dedicated exclusively to this study. The study proceeded with a sample size of seven, with confidence that ample data could be collected. Each participant fulfilled requirements of all three phases.

Prior to official enrollment in the study, each participant engaged in a 10-minute phone conversation to review the study requirements and the consent form. Each participant signed the consent form, which included pre-determined due dates for the eInterview, and specific appointment times agreed on in the ten-minute call for the video-conference, and the face-to-face ePortfolio review. All participants returned the signed consent form on time via the Gmail account.

**Content areas.** All participants were fine arts teachers in a public-school district in Tennessee. One participant taught elementary art, one participant taught high school orchestra, and two participants taught high school theatre arts. Three participants taught elementary music, however there was one anomaly. One participant had taught elementary music for the previous six years, but as of the 2017-2018 academic year was no longer teaching in the school district. He participated based on his willingness, and his years of experience in the system. Overall, four participants were currently (or had been) elementary fine arts teachers, and three were high school fine arts teachers. Each participant was randomly assigned a number to maintain confidentiality.

**Participant descriptions.** One participant had started coursework toward a master's degree; three participants held master's degrees, two had completed some coursework toward their doctoral degrees, one had earned her doctoral degree. All participants had served as peer reviewers. Participants ranged from six to 38 years of experience teaching, and ranged from three to eight years of participation with the ePortfolio evaluation system in Tennessee. All seven participants completed all three phases of the study. The three phases of the study occurred in spring of 2018, near the end of the school year. At the end of the academic year, some teachers were reluctant to take on additional time-consuming projects, and fine arts teachers were

dedicating extra time to rehearsing end of the year performance commitments. Participation in this study required a three-hour commitment from each participant, plus time for member checking, and gathering ePortfolio submission samples. Participants received a \$50 gift card to compensate them for their investment of time in this study.

***Participant One.*** Participant One was a male, elementary school music teacher who had been teaching for nine years at the time of our interviews, with seven years of experience with the ePortfolio system, beginning participation in 2011. He had been in his current school for five years. At the time of this study, his highest degree held was a master's degree and he served as a peer reviewer in the system.

***Participant Two.*** Participant Two was a female, elementary visual art teacher who had been teaching for 22 years in various subjects, with various age groups. At the time of the interviews, she had eight years of experience with the ePortfolio system; she self-reported beginning participation the year it was introduced, and self-reported being a part of the development of the system in approximately 2010. At the time of this study, she had been teaching in her school for 11 consecutive years, she held a master's degree, and she served as a peer reviewer in the system.

***Participant Three.*** Participant Three was a male, a former elementary music teacher. In 2017, he left the district to pursue his doctoral degree in education in another state. He started participation in the ePortfolio evaluation system in 2011 and participated until his departure from the district in 2017. He had six years of experience teaching elementary music in the public school setting and participated in the ePortfolio evaluation system all six years of his public school teaching experience. At the time of the interviews, he had completed one year of full-time coursework towards a doctoral degree, which included a graduate teaching assistantship in the

field of education. He served as a peer reviewer in the system until his departure from the district in 2017.

***Participant Four.*** Participant Four was a female, high school orchestra teacher who had been teaching for 38 years at the time of the interviews and was planning to retire. She had three years of experience with the ePortfolio system, beginning participation in 2014. She did not complete an ePortfolio for the 2017-2018 academic year because she was retiring. She had been in her current school for 17 years. She had a doctoral degree and served as a peer reviewer in the system.

***Participant Five.*** Participant Five was a male, high school theatre teacher who had been teaching both English and theatre for 15 years. He had five years of experience with the ePortfolio system, beginning participation in 2013. At the time of this study, he had been in his position, teaching theatre full time, for one year. He had completed some coursework towards his master's degree and served as a peer reviewer in the system.

***Participant Six.*** Participant Six was a female, high school theatre teacher who had been teaching theatre for 12 years at the time of the interviews and had six years' experience with the ePortfolio system. She began participation in 2012. She had been in her current school for five years at the time of the study. She had completed some coursework towards a doctoral degree and served as a peer reviewer in the system.

***Participant Seven.*** Participant Seven was a female, elementary school music teacher who had been teaching for 18 years at the time of the study. She had five years of experience with the ePortfolio system, beginning participation in 2013. She had been in her current school for 17 years. At the time of the study, her highest degree held was a master's degree and she served as a peer reviewer in the system.

## **Research Methodology and Analysis**

Chapter 1 examined the evolution and multiple uses of portfolio and ePortfolio, and explored the questions surrounding efficacy of ePortfolio use in teacher development. A blended conceptual framework of Schön's (1983, 1987) theory of reflection-in-action and reflection-on-action, and Mezirow's (1991) Transformative learning theory were explained in Chapter 1 and elaborated on in Chapter 3. Chapter 2 reviewed the literature related to ePortfolio, including ePortfolio as a teacher development tool, and explored reasons why ePortfolio was identified as a High Impact Practice (HIP) by the American Association of Colleges & Universities in the university setting. Chapter 3 outlined the methodological design of this qualitative case study.

Prior to beginning the study, two Internal Review Board (IRB) processes were engaged, one with Concordia University–Portland, and one in the school district where the study was conducted. The purpose was to ensure ethical integrity in working with human participants. Once approvals were gained, potential participants were e-mailed an invitation to engage in the study from a Gmail account created specifically for the study (see Appendix D). The consent form was reviewed with each of the seven participants in a telephone conversation, and then the forms were e-mailed for their signatures (see Appendix E). During the call, two appointments were made with each participant; one for their video-conference interview, and one for the face-to-face ePortfolio review in their city. The participant who was no longer in the district agreed to a screen sharing session to review his ePortfolio submissions and that appointment was scheduled prior to his return of the consent forms.

Each of the seven participants returned the signed consent form and upon receipt each individual was sent the initial written eInterview via Qualtrics (see Appendix A). The eInterview was an asynchronous, written interview (Merriam & Tisdell, 2016; Salmons, 2015), which

served as a foundation for the emergent design of the study. Through each phase of the study, there was an aim to discover participants' perceptions of their growth and development, and their opinions surrounding ePortfolio as an evaluation tool. Subsequent interview questions were designed based on their responses. A semi-structured video-conference interview, with questions designed to expand on the responses in the eInterview followed (see Appendix B). The study design was intentionally emergent to follow the patterns that progressed in each phase (Seidman, 2013).

The final phase of the study was a face-to-face interview in which we reviewed some sections of the participants' ePortfolio submissions (see Appendix C). Interviews were recorded to prevent inaccuracies (Hancock & Algozzine, 2017; Merriam & Tisdell, 2016). In the final phase, participants were not able to enter the GLADiS system because the state shifted the platform. This change in platform vendor prevented the teachers' access to their previously submitted portfolios. Instead, all but one brought USB drives with examples of their submissions. This deviation is elaborated on later in this chapter.

Respecting participant's time was an important consideration during each phase of the study. The researcher attempted to end the interviews promptly. Some interviews ran over the allocated time. Participants were invited to end the interview, but some remained engaged longer than the allotted 45-minute time by their choice. This occurred both in the video conference interview in phase two, and in the ePortfolio review interview in phase three. The researcher travelled from Texas to Tennessee for phase three of the study, and reviewed candidates' artifacts with them in person. Each meeting, whether digital or face-to-face, was recorded and transcribed.

Rev.com's transcription service was used to transcribe both the video-conference interview recordings and the ePortfolio face-to-face interview recordings. Each transcription was checked by listening to the interview while reading the transcription, making any needed corrections. Member checking was conducted with transcripts of each phase, with each member to ensure validity (Creswell, 2013; Merriam, 1998; Merriam & Tisdell, 2016; Saldaña, 2016; Stake, 1995). Member checking occurred by sending the transcripts to the participant through the Gmail account and giving a ten-day deadline for checking. None of the participants offered corrections to transcripts of their interviews.

**Coding, thematic procedures, and data analysis.** ATLAS.ti and NVivo were two of the available options of CAQDAS (Computer-Aided Qualitative Data Analysis Software) programs (Merriam & Tisdell, 2016; Seidman, 2013). After reviewing NVivo and ATLAS.ti as options, it was determined that ATLAS.ti would be used as a data analysis tool for this study. References to names of participants and students were carefully eliminated. Also eliminated were names of schools, the school district, the city, and any other identifying factors to preserve the anonymity of the participants.

With member checking complete, the three transcripts for each participant (21 total transcripts) were combined into seven master files (one for each participant). Two additional close readings of each transcript allowed development of a sense of patterns before beginning the initial coding process. Next, the transcripts were loaded into the ATLAS.ti digital platform (Merriam & Tisdell, 2016; Seidman, 2013). Using ATLAS.ti's coding tool, initial coding ensued, noting topics that recurred through the transcripts, and concepts that emerged in relation to the research questions (Friese, 2014; Saldaña, 2016). In 350 pages of transcripts, 156 initial codes emerged. From the initial codes, 58 second level code categories were constructed, which were

then categorized to construct 10 themes. The themes were organized under each of the three research questions. Throughout the coding process, the memo feature was used to assist in tracking to be used for more detailed analysis. Themes that did not align with the research questions are included in Chapter 5, under Recommendations for Further Study.

Through use of the memo tool in ATLAS.ti, a clearer picture of the participants' perceptions surrounding ePortfolio evaluation began to emerge. There were definite patterns surrounding the role ePortfolio played in participants' perceptions surrounding student growth, methods of assessment of their students, their perceptions of the role the domains within their state standards played in relation to their evaluation and teaching, their ideas surrounding reflection, the impact peer evaluation has had on their practice, and their perceptions of the impact state's involvement on the ePortfolio system. The initial study design involved dramaturgical coding (Saldaña, 2016), seeking out a beginning, middle, and end to the stories the participants told, however this was determined unnecessary because the ATLAS.ti tool was effective and allowed efficient organization of the data based on the research questions, related the themes to the questions directly (Friese, 2014).

**Deviations from protocol.** As explained earlier in this chapter, participants (and all teachers in the system) had lost access to view their ePortfolios in both GLADiS and Educopia due to two shifts in platforms made by the state of Tennessee, an anomaly they were not aware would happen. This emerged as a challenge in phase three, which involved ePortfolio reviews. Rather than accessing the ePortfolios directly within the system, saved ePortfolio submission files were reviewed. Artifacts were reviewed that were saved in various files organized by participants, instead of in a consistent digital shell of an ePortfolio platform. The same set of

questions guided the review of materials to ensure a level of consistency in the process (see Appendix C).

Three deviations emerged regarding participants. Participant Three was enrolled in a doctoral program in another state at the time of this study, so he did not fit with the initial participant criteria. Because of his six-year involvement in the system and based on the recommendation of the administration assisting in recruiting candidates, along with the perspective that he could contribute to insights regarding the ePortfolio process, he participated in all three phases of the study. Phase three of his involvement was therefore not face-to-face because he was in another state. Instead we engaged in a screen-sharing interview to review his past ePortfolio documents.

The second deviation was a Participant Five's phase three recording, which was either never created due to an error in recording, or the file was accidentally deleted. In discovering the missing recording two hours following the interview, every detail the researcher could remember from the interview was noted and then sent to the participant for member checking. He verified accuracy. Still, he granted a replacement interview to ensure there was a recording and official transcript. Because this resulted in him traveling back to redo the interview for a second session he was given an additional \$50 gift card for his extra time.

The third deviation was in phase three as well. Participant Six did not bring portfolio materials to the final face-to-face portfolio review because she was between appointments and had forgotten to bring her artifacts. She was interviewed in lieu of review of her portfolio materials and described artifacts from memory, since she was unable to reschedule. She was able to accomplish a review from memory with descriptive verbal details, and later e-mailed portfolio sample materials, which were accessed and reviewed in Google Drive.

## **Summary of the Findings**

Participants described different forms of reflective practice including premise reflection (Mezirow, 1991), reflection-in-action, and reflection-on-action (Schön 1983, 1987), as defined by the conceptual framework in relation to ePortfolio. It should be noted these descriptions were inconsistent and were intermingled with descriptions of non-reflective action such as introspection (Mezirow, 1991). There was evidence of perceived impact ePortfolio evaluation had on teaching, and its' impact on the craft of teaching. The analysis that occurred through engaging in the peer review process, while scoring ePortfolios for student growth and reflecting upon one's own lessons and students' growth in relation to peer's lessons and their students' growth, was the aspect of ePortfolio evaluation where participants described experiencing the most professional development.

## **Detailed Analysis**

In this section, a detailed analysis includes individual tables with examples of the coded data. The tables define the 10 themes by illustrating their construction through the second level codes contained within each of the themes. The tables further illustrate the frequency of the occurrence of each of the second level codes. The themes include: 1) Growth and Development Related to ePortfolio, 2) State Involvement in the ePortfolio Evaluation System, 3) Challenges Related to ePortfolio, 4) Peer Review, 5) Assessment Related to ePortfolio, 6) Domains, 7) Teacher Evaluation, 8) Reflection, 9) Benefits of ePortfolio Evaluation, and 10) Use of Video Related to ePortfolio Evaluation. The 10 themes are presented in order of frequency, starting with the most frequently addressed theme in Table 1 and continuing in descending order. Fifty-eight second level codes (constructed from the 156 initial codes) are listed within each theme in descending order; this listing can assist the reader in defining the construction of each theme.

**Growth and development related to ePortfolio.** The most significant theme was growth and development related to ePortfolio evaluation. The most frequent code was student growth, appearing 60 times. Participant One's statement serves as an example of the student growth code: "That's been the biggest change I think in my teaching, is that I was really now focused on making sure those skills improve, and showing growth in the students." Student growth was measured in a specific format in this system, through rankings that defined student performance levels as emerging, proficient, or advanced. Following categorization of student work, teachers engaged in scoring the student's work samples between a one (lowest) and a five (highest).

Explaining the aim of the student growth ePortfolio model in Tennessee will assist in understanding of this code. This system was not designed to evaluate teacher behavior, rather it was designed to require teachers to show evidence of two numerical levels of student growth, whether the student was considered within the emerging category, the proficient category, or the advanced category. The focus of this system was clearly on student growth. The ePortfolio submissions from participants did not contain video of teachers engaged in district approved instructional methods as one might expect in an evaluation portfolio, instead ePortfolio submissions contained student growth evidence of actual student work samples from two different points in time. The teacher was responsible to nurture student growth; the presumption was improved teaching would result from focusing on providing evidence of student growth. The goal of student growth applied to all students. A student categorized as advanced at the beginning of the course, who may have achieved a five rating on a key concept immediately (pitch matching, for example) resulted in the teacher working to help the student achieve growth to a level seven which may extend beyond the grade level standards (into the next grade level).

Within this theme, the second most frequently coded concept was professional growth of the participant, resulting from engaging in ePortfolio evaluation. This code appeared 30 times. Participant Seven explained motivation to seek out professional development resulting from participating in ePortfolio evaluation, which serves as an example of this code: “I’m just finding more professional development to go to and better ways I can teach different things.” Another code was the increase in specificity in relation to instructional practice, meaning being more specific in the objective of a lesson, or more specific in the criteria used to assess the lesson. This code was identified 18 times in the data. Participant Five’s statement exemplified this code, “What the portfolio, I think, forces you to do, is it really forces you to think about student growth on a concrete measurable level, instead of just doing what you always do because it always worked.” While this statement mentioned student growth, it was coded based on intention of communicating the specificity required to achieve student growth. There were 18 examples like this in the data.

One form of growth related to ePortfolio development that emerged in the data on 17 separate occasions was the willingness to “risk” attempting a new strategy in the classroom to help students grow. In reviewing his ePortfolio, Participant One described the results of the risk he took by having a class work on a canon that was beyond the rigor typical of third graders:

It brought tears, I had goose bumps when they recorded that post, after working on it for so long. But so it is, it makes you look at the perception of, that’s a canon that I wouldn’t have sang with third graders when I started the portfolio process. It was a canon that in my mind, was something for a performance ensembles to perform.

Fifteen times in the data, a description emerged of a shift from product-oriented instruction to process-oriented instruction with increased focus on formative assessment. Participant Two

explained the impact ePortfolio had on her practice:

Before, I never really looked at that breakdown. I never thought about process; I always thought about product. I always thought about, “They need a pretty picture so they can take it home.” And now I look at it as, I don’t necessarily ... . It’s not that I don’t care if the picture’s pretty; I certainly want them to do their best. But it’s more about them using what I’ve taught them without me telling them how to use it.

The growth related to premise reflection informed Research Questions 1 and 2 and will be explored in more detail later in this chapter. Participants described seeking opportunities for their own professional growth as a result of ePortfolio evaluation, and described ePortfolio as a tool that aided in expanding the conversation of practice beyond their classroom. Overall perceived improvement in instruction was mentioned five times in the data. The second level coding categories along with the frequency of occurrence of these concepts in the data are outlined in the table below and will be elaborated on later in this chapter. Table 1 illustrates the frequency of second level codes related to growth and development in the data in this study.

Table 1

*Growth and Development Related to ePortfolio*

Second level codes within this theme	Frequency
Student Growth	60
Professional Growth	30
Increased specificity in instruction	18
Risk (Trying a new strategy as a result of ePortfolio)	17
Shift from product to process driven focus	15
Increased focus on skills and objectives	9
Increased scaffolding in instruction	9
Seeking professional development as a result of ePortfolio evaluation	7
Expanding the conversation beyond my classroom	7
Improvement in instruction	5

*Note.* Codes related to the theme of growth and development are in the left column. The number

of times the codes were assigned throughout the transcripts is noted in the right column.

**State involvement in the ePortfolio evaluation system.** Analysis resulted in a theme of state involvement, both in the areas of training, and in the shift from local to state control of the process. These emerged as frequently coded topics. This system was developed by a local school district's fine arts department and expanded to the entire state. At the time of this study, the system included all non-tested content areas in the state (kindergarten, first grade, world languages, and fine arts). The participants in this case study experienced a shift over time from local to state control. Transition from local to state control of the process was identified 29 times as a common code in the data. Participant Six explained one concern regarding state involvement and what she described as a shift from review of the entire ePortfolio holistically, in which all four evidence collections were scored by one peer reviewer in the local system, to individual collection review in the state system, in which the four evidence collections were split up and scored individually, rather than a holistic view of the overall growth in the classroom, which is exemplified in this code:

I don't want them to throw the baby out with the bathwater, this is a great thing, but it is not a one size fits all. That was the whole purpose behind this, that it was not just another bubble in test. This is not something that you can-you can't look at art without looking at it holistically.

Training also emerged as a code in the data. State training was identified 24 times, and local training was identified 18 times. The state began training teachers in this evaluation method; previously training occurred at the local level. Participant One observed, "The state focuses more on how to use the operations system, like how to use the software that we're uploading into, they did a lot of training on that." That statement is an example of the state training code.

The original platform was called GLADiS; the state shifted the platform to Educopia. This

shift was mentioned frequently in the data. Participant Six described her perception of this transition, which serves as an example of the “GLADiS/Educopia” code, which emerged 21 times in the data:

GLADiS was going to a restaurant and ordering a meal, and that meal was created by a chef to be exactly what it needed to be to show the strength of that chef, each collection. Educopia is sending you with an ingredient list to the grocery store. You’re not getting to see all of the work that goes into making those ingredients meld together. You’re only getting well I did this, this, this and this from the ingredients. It’s like you’re looking at the recipe card as opposed to actually experiencing the meal.

Within the platform, the opportunity to tag evidence (“tagging”) with notes was mentioned nine times, primarily due to confusion surrounding how tagging was supposed to be used in the new system, and who could see tags. Participant Two’s statement serves as one example of data coded related to tagging:

They [trainers] kept saying in PD [professional development], you know, don’t tag, nobody can see it, but the video told differently so who do you believe? The person who didn’t create it, or the person who made the video and put it out there on the internet for all to see, because they’re the ones that know. So, people tagged, and nobody saw it.

Additionally, Tennessee was in the process of developing new state standards for some of their fine arts areas. This code was identified eight times in the data. While none of the codes in this theme play a role in answering the research questions in this study, this was an important theme that emerged from each of the participants in the data collection process. Participant Six reference to new standards serves as an example of this code, “We’re very excited to have new theater standards, but it’s going to be a huge learning curve for us to get a hold of the new

standards.” Table 2 illustrates the second level codes related to the seven participants perceptions of state involvement in the Tennessee Growth Model ePortfolio system for this study.

Table 2

*State Involvement in the Tennessee Growth Model ePortfolio System*

Second level codes within this theme	Frequency
Transition to State Control/Changes from State	29
State Training	24
GLADiS/Educopia	21
Local Training	18
Tagging of Evidence	9
New State Standards	8

*Note.* Codes related to the theme of state involvement are in the left column. The number of times the codes were assigned throughout the transcripts is noted in the right column.

**Challenges related to ePortfolio.** Participants mentioned multiple challenges in completing ePortfolios, one of which was time. “Time” was identified 15 times as a challenge. Participant Six explained the difficulty of finding time to properly document her class:

There have been great projects that I’ve done with the kids that I never put in the portfolio because they’re too hard to document or they come at a time of year where I just physically don’t have the hours in the day to sit and document them.

Videoring classes emerged as both a challenge and a benefit. The “challenge of videoring classes” was identified 15 times in the data. Participant Six explained in this example:

This is often frustrating because I see the growth that my students are achieving but I do not have the “one single” video to back it up. Because I am a one-person department and am responsible for all the directing, producing, and technical needs of our shows, I often just do not have the time or hands to make videos myself. This means that I ask students

to document their process for me. Sometimes this happens and a lot of the time it doesn't.

“Lack of feedback” also emerged as a challenge. This code was identified 11 times in the data. Participant Seven explained the results of the evaluation as being limited to numbers only:

There's no spot to give any kind of real direct feedback. Like for example, one of mine came back, and I scored an overall five on the portfolio. I was real happy. But one of my individual collections scored like a three or something like that. Now my overall score, I was still very good. I still got a five, but I was wondering, I'm like, “Well, hey, I wonder why this got a three?”

Participant One explained the challenge of working with “high achieving populations”, which appeared nine times in the data, in this example:

I'm really making sure that they're hitting those milestones where I need them to show that growth. You know, that carries onto the next grade level. Provides challenges for me in the next grade level the next year, because then you've got to grow them more.

Participant One explained the “differing approaches to instruction across the state” (appearing four times in the data) in this example: “It could be that your portfolio was reviewed on the opposite side of the state, by someone who doesn't have Orff training or doesn't have Kodaly training and maybe you've done something that was very specific.” Table 3 illustrates the codes in this category.

Table 3

*Challenges Related to ePortfolio*

Second level codes within this theme	Frequency
Time	15
Videoring Classes (as a challenge)	15
Lack of Feedback	11
High achieving student populations and showing growth	9
Differing approaches to instruction across the state of Tennessee	4

*Note.* Codes related to the theme of challenges related to ePortfolio are in the left column. The number of times the codes were assigned throughout the transcripts is noted in the right column.

**Peer review.** Giving the teacher the “benefit of the doubt” was an important element in the peer review process and was coded 17 times. Participant Six explained the local philosophy of scoring as a peer reviewer (which participants described as changing when the state took over the system). This quote exemplifies peer reviewers at the local level granting the benefit of the doubt as they engaged in review, which is the definition of this code:

As we went through the PDE [professional development] for peer review, we were told time and time again, always err on the side of caution. Do the due diligence. Assume that the teacher is trying to do the right thing and you need to do right by the teacher.

“Professional growth” resulting from peer reviewing emerged 16 times as a coded concept. All of the participants described professional growth resulting from being a peer reviewer.

Participant Six explained,

Being in the [peer review] process, we learn so much from that. We’re like, “Oooh, I don’t ever want to do that that way” or “Oooh, that could be really cool.” That’s great for us. I sat in a room for three days earlier this semester with a bunch of visual art people and they were all getting the same benefit from the process. That part is great.

Each participant described levels of subjectivity in “peer reviewers perceptions” of student growth. This concept was coded 11 times. Participant Six explained that subjectivity in reviews have increased since the system has gone statewide in this example: “Now that it has moved statewide, the teachers and peer reviewers are not as well versed in the process and that led to some pretty serious inconsistencies in the scoring of work.”

This excerpt from Participant One serves as an example of the code “special circumstances” which was identified in the data four times:

They [peer reviewers] don't know that you live in [the] middle [part of the state], and towards the [inaudible 00:12:19] and you had five snow storms this year, and you live in the south, so that means that you lost just one class you were portfolioing, because it has happened on a Wednesday and that would, your portfolio class, you were chosen at the beginning of the year. Myself, I choose multiple classes, so that doesn't happen to me. But letting the reviewer know the things they need to know, so that they can score you in an appropriate manner. And not just assuming that they know all of the details of your situation and what's going on at your school.

Participant One's statement served as an example of the In Vivo code “getting into the peer reviewer's head” as he described what he included in his submission (which was identified in the data three times), “So really, getting in the reviewers head and making sure that the reviewer has everything they need to know to score you appropriately.”

Table 4 illustrates participants' key codes in the category of peer review.

Table 4

*Peer Review*

Second level codes within this theme	Frequency
Giving the Teacher the Benefit of the Doubt	17
Peer Reviewing resulting in Professional Growth for the Reviewer	16
Peer Reviewer Differences in Perceptions of Student Growth	11
Special Circumstances to Explain to a Peer Reviewer	4
Getting in the Peer Reviewer's head	3

*Note.* Codes related to the theme of peer review are in the left column. The number of times the codes were assigned throughout the transcripts is noted in the right column.

**Assessment related to ePortfolio.** Data revealed that student scores within the ePortfolio system were frequently discussed in the data. This code appeared 16 times. An example of data coded as “student score,” which is defined as mentioning, explaining, or discussing student scores, from Participant Seven is here:

If it starts off at a low level then they made a one, because that's the lowest level because we had a rubric and you can write it according to that rubric, like for example, if they not meeting expectations, that's a two, or something like that. It went from a two to a level five; it grew three levels, so that means that they overall made a five. If they show more than two levels growth, that's a five.

Participant One explained the concept of “pre-test”. His explanation serves as an example of the pre-test code, which emerged 13 times in the data:

At the beginning of the school year, I typically pre-test multiple skills that I could use in lower elementary, [such as] steady beat, pitch-matching, etc. As the year progresses and new skills are introduced, I evaluate the portfolio rubric for scoring for that academic year and pre-test other grades and skills to round out the portfolio.

Participant Three explained his approach to categorizing for “emerging, proficient, and advanced” students, a code which occurred 11 times. This quote serves as an example of the emerging, proficient, and advanced code:

I want to make a clear difference between students being proficient, emerging, and advanced. As this was level one, I said that this student was emerging. Then I do this with each of the students. Now, I’m sure there’s plenty of teachers that would just pick three students, and do a proficient, emerging, and advanced thing, I decided I wanted the entire class to all write and reflect on it, and by having the specificity of that, I was able to see if they recognized each of those things.

Participant perspectives included the identification of student work as emerging, proficient, or advanced, and pre and post-testing as a best practice. Participant Three’s introduction to a video of his post-test in the portfolio review serves as an example of the “post-test” code which occurred nine times:

It’s kind of why this particular post assessment you’re about to see, it’s honestly something I’m kind of proud of, because it was something that it was really the students thinking about what they were doing with their movement. It had this, not only the connections, but the creative element coming from them.

“Student created rubrics” as tools to promote self-assessment and critical thinking also emerged and was coded eight times. In this example, Participant One describes his use of student-created rubrics as an assessment tool and a learning aid for his students:

Having the student create the rubric, this is the first year I actually did this one, and I really like it, it’s probably something I’ll do every year now. Because it really helped the kids hone in on those skills. Their playing increased, they were more mindful because it’s

one thing to tell the kids, it's another thing to ask them to make a rubric to score it because it gets them in a different mindset of what they're looking for and thinking about. They had to analyze what they were doing, because they had to create this. They are all different. We had clearly talked about what it meant to play to the recorder well...this is the proficient child Here he referred to it as arctic winds or tropical breeze for the air. That's another way we talk about the air when you're playing.

The concept of a mid-point assessment was identified three times in the data. Participant Two explained adding a mid point assessment that she refers to as "Point B". This excerpt serves as an example of the mid-point assessment code:

The Point A is the base point--the pre-assessment if you will. This is when I give my students an assignment but nothing more than the expectations of the final product. No teaching or reteaching is done at this time. Point B is after I have taught the skill/concept, such as landscape. Now would be the time I introduced one-point perspective and add levels of difficulty to the overall composition. This is usually when students learn to add space and depth into their drawings. Upon returning from the winter holiday I begin to plan assignments that will retest' the students knowledge and retention of a skill/concept. Point C would be yet another landscape. This time there might be a theme or connection to something they have been studying with their classroom teachers. Table 5 illustrates the second level codes related to assessment in this study.

Table 5

*Assessment Related to ePortfolio*

Second level codes within this theme	Frequency
Student Score	16
Pre-Test	13
Emerging, Proficient, Advanced	11
Post-Test	9
Student Created Rubric	8
Adding a mid-point assessment	3

*Note.* Codes related to the theme of assessment related to ePortfolio are in the left column. The number of times the codes were assigned throughout the transcripts is noted in the right column.

**Domains.** The code relating to “Perform, Respond, Create, Connect” which are the four domains in the Tennessee Fine Arts standards was the second most frequently occurring code in the study with 51 appearances. An example of this code is excerpted from Participant Three’s discussion of the domains and the impact ePortfolio had on his teaching:

I now believe that without the respond and connect, you remove student agency, and you remove student connectedness to their own culture, and to the world around them.

If we only look at music in terms of perform and create, then we’re simply reproducing, or even if we are creating, we’re not necessarily thinking about the why we’re creating what we’re creating. So we lose that interconnectedness with self, and world around us, and we lose the student response. So that has been meaningful to me, because being able to use that connect artifact in a way that was so deeply engaging for students. Or to use the respond artifact in a way where the students are actually able to really think about, and take pride in, what they’re doing, was deeply meaningful.

Every participant had a strong grasp on the domains in the state standards. Although there was domain confusion that emerged in the data which was coded 12 times, the insights surrounding

the domains were substantive, and the conversations that emerged regarding the standards and domain confusion were complex. Connect emerged as the domain the participants perceived to be most challenging to master for participants in this study. “Never do connect” was a code that was identified in the data 25 times. A participant explained, “I’ll be very honest with you and tell you I never do connect. Because you have to show growth in the connection. And to me, it’s hard for me to think about doing that, with once a week, 50 minutes.” There was a consciousness regarding the state standards and the curriculum that appeared to have resulted from participation in the ePortfolio process. “Curriculum consciousness” was coded 15 times. Because the system is statewide, participants review ePortfolios from across the state as peer reviewers; there was also a consciousness of differences in curriculum and pedagogical approaches across the state. Table 6 illustrates codes related to the theme of Domains. Participant One’s explanation about the impact the ePortfolio began to make on his work serves as an example of the curriculum consciousness code, “I was starting to think more purposefully about the standards. I wasn’t just looking at the curriculum anymore. I am looking at the curriculum guide in the district and saying, okay, am I following enough of the curriculum?”

Domain confusion was identified as a code. Participant Seven’s explanation serves as an example of this code:

Some people still struggle with it. That’s why I’ve been trying to help a lot of my colleagues because they’re like, “Oh my gosh, I’ve got this really great thing I want to do. Should I call it a connect or should it be a respond? Should it be this or that?” I’m like, “What are you trying to get them to do? What’s the end product? What are you trying to get them to do? That’s where you look at those four domains and see where it fits.”

Table 6 illustrates the frequency of second level codes related to Domains within the state

standards in this study.

Table 6

*Domains*

Second level codes within this theme	Frequency
Perform, Respond, Create, Connect	51
Never do Connect	25
Curriculum Consciousness	15
Confusion Surrounding Domains	12

*Note.* Codes related to the theme of domains are in the left column. The number of times the codes were assigned throughout the transcripts is noted in the right column.

**Teacher evaluation.** Participants were not asked to share their evaluation scores as a part of this study, but scores were mentioned frequently in the data, and “teacher score” was coded in the data 22 times. Additional codes emerged in the data revealing teacher’s concern with being observed by administrator’s untrained in their content area. This was coded 10 times in this category. The phenomenon of tested content areas impacting evaluation scores was coded six times. Participant Three’s explanation exemplifies the code “teacher score”. Here Participant Three explained the evaluation score shift as a result of the ePortfolio score replacing the standardized test score in his evaluation. This excerpt serves as an example of this code:

I think the changing of my score from basically being around near one to being a level five gave me a whole lot of autonomy which meant that I wasn’t afraid to have co-construction in my classroom.

Classroom observation, a form of teacher evaluation mentioned by participants, is often done by administrators unfamiliar with the content area and was coded 10 times. Participant One’s statement serves as a sample of this code:

An evaluator in the room probably wasn't musically trained, so they didn't hear anyways. They responded, and participated, and at the end of the day they could tell the evaluator they were working on their singing voice, but I may not have actually given them that feedback.

Some forms of evaluation are focused on teacher behavior, others are focused on growth related habits of mind. Participants discussed this code in relation to teacher evaluation. Participant Three's statement discussed the difference between student growth centered evaluation and evaluations that focused on teacher behavior. The difference between these two types of evaluations, teacher behavior focused, vs. habits of mind serves as an example of the recurring code "teacher behaviors/habits of mind" (occurring eight times):

I think that when it comes at least to the Danielson model and what a lot of systems that had been very similar to that, I feel like that's measuring specific teacher behaviors, and not so much the learning of content. The problem with that then is again, like for example, I observed the lesson a few weeks ago, observed the teacher teaching. The classroom was rather rambunctious. The truth is, they were extremely creative. I was really impressed with the growth. I also know that it's possible that if an administrator comes in and sees a rambunctious class, for example, they might interpret that differently using a rubric.

I think the portfolio is more content focused. I feel like a lot of times observations run the risk of being behavior focused and I don't know how helpful that really is.

Participant Six's statement recurred amongst participants in appreciation of the ePortfolio evaluation system which replaced the standardized test score from other content areas being applied to fine arts teacher's evaluations. When asked for advantages to this system. Her reply exemplified this code which occurred six separate times in the data, "Not having to use student

scores from tests that have no direct correlation to my content area and not having another traditional test for my students to take.”

Participants’ responses varied as to whether they told their students the video was part of their teacher evaluation. An example of this code, which occurred six times, from Participant One:

I never tell my students its part of my evaluation. The reason I don’t tell my students it’s part of my evaluation, is for the same reason when my principal comes in my room, I don’t tell them I’m being evaluated. I tell them that my principal’s there to see what they’re learning, because I think my students are under enough pressure as it is with other [inaudible 00:17:40]. To think that they’ve come to an arts class where they have to express themselves and my fifth graders sing beautifully for me because they trust me, and if it was ever a score or something else, I’m not sure what they would do. They think about it too much. And I don’t want that to get in the way of their enjoyment of what we do. So they don’t know it’s for my evaluation.

Within the same category Participant Seven expressed an opposite example of this code:

I said, “You know, your homeroom teacher gets graded according to how you do, and I get graded too, because I’m a teacher just like your homeroom teacher, but I teach music. So, this is how I show what you do.” And they were like, “Oh, really?” I said, “Yeah.” They were like, because the P.E. teachers do it too. They said, “Oh, yeah, well Coach so and so filmed us and the other day, so yeah, we did this.” So, they understand. The most of them understand. The art teacher, she takes pictures of the work they do, and she saves, and she doesn’t, you know, say something. So I told them why, and they’re like, “Oh, okay, well yeah. That makes sense. We understand.” And I said, “Now, when I do

this, I want you to take it seriously and just do your best.” I said, “Even if it’s not perfect, I just want to see you do your best.”

Table 7 illustrates second level code frequency related to teacher evaluation.

Table 7

*Teacher Evaluation*

Second level codes within this theme	Frequency
Teacher Score	22
Classroom Observation by administrators untrained in content area	10
Evaluation: Teacher Behaviors/Habits of mind	8
Evaluation of my work, not other subjects	6
Evaluation: Telling students	6

*Note.* Codes related to the theme of teacher evaluation are in the left column. The number of times the codes were assigned throughout the transcripts is noted in the right column.

**Reflection related to ePortfolio.** The narrative component of the ePortfolio process was perceived by some of participants as a form of reflection and by others it was not perceived to be reflective. “Narrative” was coded 27 times. Here is an excerpt from Participant Three: “I am extremely detailed in my narratives for each of my artifacts, because I want the reviewers to know where my thoughts are coming from. But reflection...that’s another thing.” Participant One, however, viewed the written narrative portion of the ePortfolio evaluation as a reflective component. In reviewing his narrative form during the ePortfolio review he shared:

Now the narrative I can show you ...I have put a narrative for pre and post, which was strange. So, I just uploaded the same thing twice. So, this was my kindergarten one this year. And they gave us the template this year. Which is fine; some years they have, some years they haven’t. In past years I hadn’t used their form. This year I did because it was a new system and I didn’t know if there were weird things, because I didn’t know how we would be able to view things. So, here [indicating screen] I keep it pretty simple. Some

people's reflections are like here [indicating form]... like it said GLE or CLE rubric growth. Some people didn't use this form though, that's why you didn't know it's GLE, they just have typed it in, and it was just all you had was the reflection.

Beyond narrative, "documentation" emerged 11 times and was a code within the reflection category in the sense that participants went back to documented evidence, comparing it to current evidence and used those sources to write their narrative. Participant Seven explained:

I go back and write it [the narrative] at the end. I do both of mine at the end because I have a chance to look at both of them and compare the two. I can say, "Okay, I remember what was going on then and I remember what was going on then." And something has happened between those two tests because this was taken in October and the second was taken in I want to say late March or early April, somewhere around there. You can see how many students grew and were able to improve.

Reflection leading to best practices also emerged and was coded eight times. Some participants indicated the ePortfolio process as being a motivator to seek our professional development based on reflective practice surrounding their ePortfolio engagement.

The code, "student reflection" (as a benefit of ePortfolio), was identified 11 times. Here is an example from Participant One, "I enjoyed showing students the recordings of these things so they could reflect on their own practice as well." Participant Seven's excerpt serves as an example of the code Reflection-Best Practices:

Reflection is important after performances--looking at the final product and knowing what made it successful. It's important to know what instructional strategies work, and when the final product is not successful, then we need to know why, and not to repeat those practices. It is also important to reflect on strategies that didn't work so they can be

revisited and refined--and if things still don't work, find a new strategy.

Participant One's succinct statement serves as a direct example of the code of reflection guiding professional development choices that was coded six times, "Reflection guides professional development that I choose to attend and research." Table 8 illustrates the frequency of second level codes within the theme of reflection related to ePortfolio in this study.

Table 8

*Reflection Related to ePortfolio*

Second level codes within this theme	Frequency
Narrative	27
Documentation	11
Student Reflective Practice	11
Reflection-Best Practices	8
Reflection guiding Professional Development Choices	6

*Note.* Codes related to the theme of reflection related to ePortfolio are in the left column. The number of times the codes were assigned throughout the transcripts is noted in the right column.

**Benefits of ePortfolio evaluation.** Benefits that emerged in the data included ePortfolio evaluation being "tailored to their students". This code was identified in the data 19 times. A coding example of this came from Participant One, "That's another benefit to the portfolio and the way we do it in my mind, because I can tailor my portfolio to what we do and how our children run." Participants indicated the benefit the ePortfolio was that it was not based on standardized assessment scores, and was focused on student growth. Participants stated the ePortfolio process involved meeting students at their own starting point and eliciting growth from there.

The participants perceived the ePortfolio as an evaluation tool that "saves jobs" of highly effective fine arts teachers and this code was identified 18 times in the data. Participant Three explained,

I could have lost my job in the first year because student test scores were low and that counted as 50% of my entire evaluation. Then, the other half was going to be observations. Most of the time I was being observed by my principal. As many of us know what a principal is looking for in a classroom tends to be very different from what a music educator is going to look for when they come into a classroom.

Participants were enthusiastic that the ePortfolio was “not a standardized test score” instead was a holistic assessment based in student growth over time; this code was identified 10 times.

Participant Three’s statement serves as an example of the not a test score code: “First of all, the most helpful thing obviously was that it was replacing a test score.” The higher evaluation scores translated into an opportunity for arts teachers to serve as leaders, which became an advocacy tool for the arts. Participant Three’s statement serves as one example of the “advocacy” code (identified eight times in the data), which included increased funding for resources, beyond influence resulting from higher evaluation scores:

I was going from being a somebody who is at risk of being a level one which could get me fired to being at one point one of the only level five teachers in the school, which basically meant that I was actually being looked at a lot to influence policy within the school.

“Time as a double edge sword” was coded six times. Initially an In Vivo code based on a participant’s exact words, the frequency of this concept emerged and it became a code in the study. Time was cited as a challenge, but in some cases was cited as a benefit to the ePortfolio evaluation process; the benefit/challenge mixed nature of reference to time is the purpose of this code. Participant One’s statement serves as an example of this code,

My administration understands that I get scored on a portfolio basis. So he understands that I need my planning time. Teachers who are at other schools where they're not concerned about their teacher's portfolio scores, because it doesn't factor into their school scores.

Table 9 illustrates the frequency of second level codes related to the theme of benefits of ePortfolio evaluation in this study.

Table 9

*Benefits of ePortfolio evaluation*

Second level codes within this theme	Frequency
Tailored to my students	19
Saves jobs	18
Not a test score	10
Advocacy tool	8
Time is a double-edged sword	6

*Note.* Codes related to the theme of Benefits of ePortfolio Evaluation are in the left column. The number of times the codes were assigned throughout the transcripts is noted in the right column.

**Video related to ePortfolio evaluation.** The data revealed the video use as a benefit in some instances in ePortfolio evaluation, with 14 coded examples. The question was asked of Participant Seven, “What is that like for you as the teacher videoing them and then watching it?” Her response serves as an example of this code:

Well, I'm becoming more aware of what I might need to do for them because I'm listening if they sing on pitch, if they don't sing on pitch and wondering okay, well yeah that didn't sound really good, what should I do to fix that? I become more aware of what the product looks like, even in the pretest.

Participants expressed the impacts that videoing had on their classes, planning, reflection, and awareness. Participant One's excerpt serves as an example of “Videoing impacting practice”

which was a code that was assigned eight times in the data for this study, “Sometimes in the class you are recording and you think you catch everything and you don’t. Because you are the one person in there with 25 kindergartners.” Participants also expressed collecting of video and “videoing of multiple classes”(a code that occurred five times) as a strategy to ensure they had the data they needed to illustrate student growth. This coded excerpt from the ePortfolio review transcript of Participant Seven serves as an example of the number of videos participants collected during the course of the year. Each number represents a video that I am counting:

Researcher: So you have lots of artifacts here, but you curate this down to-

Participant Seven: Four different collections

Researcher: So you’ve got [counting from screen] one, two, three, four, five, six, seven, eight, nine, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, you’ve got almost 30, maybe more that you’re doing between like September and April?

Participant Seven: Right.

Researcher: This is your evidence collection and then you will curate that down to three or four?

Participant Seven (nodding in the affirmative): Because each grade will represent one evidence collection

Participants also explained “video is not of the teacher” (coded four times); the students and their growth are the focus of videotaping in the classroom. Participant One’s excerpt serves as an example of this code, “If you’re video recording a xylophone piece, you’re not recording the teaching process. You’re recording the student product.” Table 10 illustrates the theme of videotaping and the codes related to that theme.

Table 10

*Video Related to ePortfolio*

Second level codes within this theme	Frequency
Benefits to Video Recording	14
Videoring impacting practice	8
Videoring of multiple classes	5
Video is of students, not teaching	4

*Note.* Codes related to the theme of video related to ePortfolio are in the left column. The number of times the codes were assigned throughout the transcripts is noted in the right column.

**Presentation of the Data and Results**

In this section, results are organized by research questions. Research Question 1, exploring reflection, relates to a single theme (Reflection). Research Question 2, which involved ePortfolio’s impact on the craft of teaching, included themes of Growth and Development, Assessment, Benefits of ePortfolio, and Domains. The following categories of these themes aid in the answering of Research Question 2: 1) the definition of student growth, constructed from the theme entitled Growth and Development), 2) methods and approaches regarding student assessment, constructed from the theme Assessment), 3) focus on process over product which was described by Participants One, Two, Three, Five and Seven within the theme Benefits of ePortfolio Assessment, 4) habits of mind relating to assessing for growth of students was described within the theme Benefits of ePortfolio Assessment, and 5) the four domains set out in the state standards (create, respond, perform, connect) which are part of the theme Domains. Research Question 3 explores how ePortfolio evaluations double as a professional learning tool. Professional development related to ePortfolio was constructed through data from the following themes: 1) Peer Review, 2) Teacher Evaluation, 3) Training (a category of the theme State

Involvement), and 4) Use of Video. There was overlap between RQ1 and RQ3 because reflection led to professional development for Participants One, Two, Three, Five, and Seven.

**RQ1. What type(s) of reflection do fine arts teachers describe when developing ePortfolios for evaluation?** The theme “reflection” overviewed in Table 8 is the stand-alone theme relating to this research question. As stated earlier, a common definition of reflection did not exist amongst participants, and at times, participants described what Mezirow (1991) would deem non-reflective practices as reflective, such as introspection. Five of the seven participants, however, described process reflection, premise reflection, or both when discussing the impact of ePortfolio on their work.

Prior to the eInterview, the term reflection was not defined for participants intentionally so as to allow comparison of their personal definition of reflection in relation to the conceptual framework. The initial eInterview directly inquired: “Explain what reflection means to you in relation to ePortfolio evaluation.” Three of the seven participants responded that reflection was not an element of the ePortfolio process. Those participants attributed a lack of reflection as a consequence of a lack of feedback beyond a numeric rating. (Teacher’s ePortfolios are reviewed by peer reviewers and are scored on a level of one to five, one being the lowest. Written feedback is not provided back to teachers; they receive a numeric score only). The lack of feedback beyond a numeric score emerged as a challenge in participants’ perceptions of ePortfolio experiences. One participant referred to reflection in terms of confusion associated with the score she was assigned. She wrote, “The thing I find myself doing most is wondering why I was scored a particular way on a collection.” This type of cognition would be described as non-reflective action by Mezirow (1991). He described wondering as “non-reflective” calling it “thoughtful action” in which we “draw upon our prior learning to remember and make

inferences” (Mezirow, 1991, p. 107). This involves applying one’s beliefs to create an interpretation of an event or process, and because it doesn’t serve to transform one’s current belief or perspective, it is non-reflective. Reflective action requires a newly imagined insight, a new interpretation, and then a transformation in a meaning perspective or meaning scheme (Mezirow, 1991). He defined this action as non-reflective (introspection) because it does not involve validity testing or reflective action for making adjustments to practice. The reference to the score relating to the evidence collection itself, rather than on the practice of teaching, indicates a compliance with a certain methodology of documentation for the ePortfolio, rather than an examination of validity of teaching processes in the classroom for this participant.

Each participant described reflective practice as defined by the conceptual framework in the subsequent interviews in relation to ePortfolio. It should be noted these descriptions were inconsistent and were intermingled with descriptions of non-reflective action. The definition of reflection within this framework involves integration into “the active process of instrumental problem solving” (Mezirow, 1991, p. 107). The discrepancy in the data regarding reflection speaks to the gap in the survey data collected by the Tennessee Department of Education (2017).

The Tennessee Department of Education (2017) study showed the benefit of ePortfolio evaluation as professional development was *not* perceived by teachers. The 2017 study found that participating in the portfolio process improved key teaching practices, however. This is a discrepancy in the findings. How could the study show participation as improving upon key teaching practices, while simultaneously reporting teachers did not perceive the growth in their practice? This discrepancy was part of the focus of this study.

Six of the seven participants in this case study described reflection in and on action resulting from ePortfolio engagement (all but Participant Four). Five participants described

premise reflection resulting in transformative learning relating to process vs. product orientation in their teaching (all but Participants Four and Six). Participants Two, Three, and Five did not define those practices as reflective when asked directly for their definition of reflection. Teachers may not be recognizing reflection, or may be engaging in non-reflective action but calling it reflection, because there is not a common definition of reflection within this ePortfolio process.

Participant Three described reflection as occurring, but expressed that it was not a primary goal of the ePortfolio. He described using video to aid his students in process reflection, however, he further explained in the excerpt below that the stakes involved in evaluation resulted in a mindset of a “defense” of one’s teaching quality and ability to grow students over an opportunity to reflect. He wrote in his initial eInterview:

So one thing I would do is record the artifact and then play it for my students. I would do this during the pre and the post. I would also have them journal about these experiences sometimes. Lastly, I would ask them things like, “How can we make this better?” Again, in my professional practice, beyond perhaps using my experience reviewing portfolios and submitting my own as a means to inform my discussion of exemplars with others, there is really not much in terms of reflection. Now if you are talking about narrative, I am extremely detailed in my narratives for each of my artifacts, because I want the reviewers to know where my thoughts are coming from. But reflection...that’s another thing. Honestly, in terms of evaluation in general (especially high-stakes evaluation), I think the word “reflection” can become a euphemism for the word “defense.”

Two participants explained reflection in relation to ePortfolio as was represented in the seminal literature reviewed in Chapter 2. These two participants described reflection in relation to ePortfolio as looking at their work and determining how to improve it. Participant One

responded describing process reflection-on-action, “For me, reflection is looking at what I did and deciding if it was the best practice. Was there a more effective way to do that?”

Participant Seven responded,

I feel that reflection in this sense means to look at the final product and see what went well, why it went well, and teach that skill in that way next year. If something did not go well, why did it not go well, and what do I need to do to avoid that happening again or to make it better?

In the video-conference interview and the face-to-face ePortfolio review, evidence of reflection in relation to the ePortfolio emerged in each of the participants’ perceptions surrounding concepts of how to measure student growth, problem solving relating to scaffolding for instruction, and critical analysis of student work. In the initial eInterview, with the exception of two participants, the responses regarding the role of reflection indicated it was not perceived to be a factor in their ePortfolio evaluation experience. Therefore in this study, at least four participants did not directly credit ePortfolio engagement with enhancing their professional reflective practice. One area that reflection was reported as perceived by all participants in this study was in the peer reviewer role. This aspect is outlined later in this section under Research Question 3.

Further analysis revealed premise reflection occurring over long-term involvement in ePortfolio evaluation. Participants One, Two, Three, Five, and Seven perceived a shift in perspective from product-oriented classrooms to process-oriented classrooms focused on skill building over final performance/product. Participant Four recognized the focus of instruction shifting from product to process as a result of ePortfolio evaluation, but did not express agreement with the shift to this premise in her approach to teaching, therefore for her, no

transformative learning experience occurred. She expressed a desire for her students to remain performance based in their experiences in fine arts. She explained:

I don't know that it's necessarily for the better because, while Create is important, I feel like that my primary thing I'm doing is helping them to be a better performer.

Realistically, since I was retiring this year and I didn't have to do a portfolio, I pulled the Create back out again because I didn't have to do it. Because the only reason I did is because I had to.

The shift from product- to process-focused instruction was described as premise transformation, which involves a change in perspective by five of the other participants, and was especially apparent in participants from the elementary level. For example, Participant One explained:

The biggest change that I think I've seen in my teaching is that prior to the portfolio when I think about those days [prior to ePortfolio assessment], I was very activity driven in the music room, or program driven...the portfolio really drove me to push particular skills, and objectives. So, instead of just playing the singing game, really giving my kids the feedback that they needed to actually improve their singing voice.

A definitive mindset oriented around student growth over teacher behavior was described in every participant's responses and this focus on student growth over teacher behavior translated into every participant's practice, as was evidenced in reviews of their ePortfolio submissions and the long-term engagement involved in documenting student growth may have contributed to premise reflection and a habit of mind from teacher behavior focused approaches to craft to student growth focused mindsets. Participant Four explained:

I started really becoming more process oriented because I'm thinking, "Okay, these kids aren't getting this. Why? What can I do to change this so that way we can make things

better. They are not understanding this concept. What am I doing so I can change things?”

The data revealed Participants One, Two, Three, Five, and Seven perceived a definitive shift in premise from activity-driven instruction and teacher behavior to a mindset focused on student growth and process.

**RQ2. How does the process of ePortfolio evaluation impact the craft of teaching in music? In visual arts? In theatre?** An example of impact of ePortfolio on the craft of teaching was explained by Participant Seven:

I really believe that, if that portfolio had not come into play, I would probably be doing some of the same things, I wouldn't say everything, but I would be probably doing some of the same things, and then doing things the same way. I'd be using the same strategies and then not knowing what I can do to move them along, I'd just say, "Okay, well, some kids get it, some don't. I just move on."

**Assessment.** Methods and approaches regarding student assessment have improved as a result of participation in ePortfolio evaluation according to the Participants. Participant Seven explained, "My weekly instruction was driven by the student data and their need to improve on chosen skills, for example, pitch matching." She went on to describe pre-tests in August and September and post-assessments as benchmarks in March. "They went from September to March and they went from 50% to 85%, so we've got more students that can actually match pitch." She explained that prior to ePortfolio assessment she was focused on getting a stellar end product by highlighting students who could master the content. Her shift focused to aiming for every student to experience mastery. She explained the impact an increased focus on assessment had on her teaching:

I will say that my variety of strategies has definitely increased, because like in the beginning I might play a few circle games with them, or I might repeat the same thing a few weeks in a row. But I've been looking for more songs they can sing, and some that had a wider range, so they can kind of challenge themselves, push themselves a little bit. The resources I've been using has definitely changed, because I've actually started getting more things I can use that might help them to get to that point of mastery, so I will say, I use more ... . I use different kinds of resources, not just the same kind of song, but like, different songs. Like, we might start off matching on two pitches, so and mi, but then maybe by the end we'll try to do three or four or something like that. So, I've definitely...tried to become a little more rigorous. Like towards the end, I try to challenge them, push them a little bit more, so that they can really, really see that there's more growth there, instead of me singing the question have them sing it and answer back. You know things like that. So, I will say that those are two things I will say that I have definitely noticed a big change in.

It was clear that participants were developing habits of mind relating to assessment. Participants described ePortfolio's impact on accountability to the four domains for learning in fine arts required by the state of Tennessee. Participant Seven explained:

The portfolio system is an exact showcase of student work. It is not a baseline test score that tests students on skills they may or may not have been taught. I planned the portfolio and assessments at the beginning of the school year so students would know what they would be tested on and why they are being tested.

***Student growth.*** All seven participants spoke directly to student growth as the focus of the ePortfolio evaluation system in Tennessee. Participants explained the individualized

assessment of students' starting points to ensure focus on growth based on identifying the student work as emerging, proficient, or advanced in starting skill. One impact on teaching practice was participants consistently describing student work, rating the students within emerging, proficient, and advanced categories, and then scoring student work from the lowest rating of a one, to the highest rating of a five. The state added level six and seven as options in the post-assessment phase to ensure opportunity for two levels of growth for every child. This was an attempt to ensure growth in already high achieving students who scored at the highest level of a five. A six or seven are not assigned at the beginning of the year; instead the student must earn the six or seven by engaging in work that reflects growth beyond the grade level standards during the course of the year.

Rather than setting an expectation to meet or exceed a standardized score on a single test, it was expected that every student grow two levels in assessment of their art or performance work, between two different points in time, from their individually identified starting point. This might look like a pre-assessment after some instruction of a drawing applying line, shape and balance, then the teaching of an entire unit of study, and then a post-assessment of another drawing applying line, shape, and balance. The result of the post assessment should show evidence of two levels of improvement in the students' skill.

A student in an advanced level may earn a five (the highest possible score) at the beginning of the unit. Because of the potential to enter the unit working at a level five, the state added two additional levels, up to seven, to ensure teachers are continuing to push those students, even beyond grade level. Therefore, if a student enters with a mastery of line, shape, and balance, the teacher is obligated to go beyond the grade level curriculum, digging deeper into the scope of the content, to show two levels of growth from the student's point of entry.

The same concept can be applied to playing scales, etudes, or certain repertoire on an instrument, or performing with application of specified acting or movement theory and assessing prior to, and after instruction, looking for specific points of improvement. Factors constituting a score were vague in some areas. The expectation was that a student scoring a six or seven after instruction was performing above grade level. The expectation to show documentation proving two levels growth in students from each category (emerging, proficient, and advanced) was a clear systemic function of the ePortfolio related to the teacher's evaluation. Each of the participants described, understood, and applied varying ways of identifying and documenting student growth in their practice. Therefore student growth aims directly impacted planning, assessment, and practice.

Participant Five explained, "When you have to prove it then you're really focused on how do I show from point A to point B how my kids got better. You get really, really more focused on it." The focus on student growth created motivation for teachers of students starting with low skill levels to gain attention, and teachers of high achieving students to reach beyond the basic standards set by their district and state.

Participant One explained:

I'm really focused on student growth rather than achievement. The benchmarks...our district's curriculum, says one thing that the kids should be performing. I make sure we hit those skills, but that's not my end goal anymore. My end goal is moving them as far along as we can get. The district requirement for third grade is canons in two parts; we always had three or four part canons in third grade now, because I'm so interested in moving my kids forward. I need to show that two levels of growth.

Participant Seven, an elementary music teacher, explained: “I feel with keeping the portfolio in mind as the end product, I am becoming more aware of how I assess students and using various ways to show growth.” Participant Five, a high school theatre teacher, suggested the portfolio system motivated a refinement in how he defined and identified growth in his classroom. He explained the impact this focus had on his lesson planning and development. He stated, “I always had student growth in mind but not as clearly ... the portfolio makes you really have to really think about it and I go, ‘Oh! This is how they’re growing,’ work to do.”

Perceptions about assessment related strongly to student growth, at the elementary level especially. Elementary teachers participating in this study perceived that ePortfolio had a direct impact on their formative and summative assessment practices, which created a focus on student growth. For teachers with high achieving students this was described as encouragement to continue to develop the students beyond grade level. Participant One explained:

This year third graders are a little more advanced than kids I’ve had before. But I’m also seeing, because of some of the portfolio skills, the way I encourage the growth in my students that my kids are performing at a different level than they were. They handle things differently because I’ve given them bigger challenges.

Participant Seven explained that the level of rigor increased in her classroom as a result of ePortfolio evaluation with a focus on student growth. She explained that prior to having to show growth, there might have been times when she would move on if a lower level student did not master a skill. She described her process now as exploring multiple strategies and constantly looking for new resources to increase rigor for higher-level students, and aid growth in her lower level students. She explained while showing her students’ work in the ePortfolio review that she includes examples of growth in emerging, proficient, and advanced students in her ePortfolio

submissions. Speaking about artifact collection, Participant Seven exemplified a growth mindset when describing her students' progress, comparing two points in time: "They might not be getting it, but they're getting closer...because singing is something that's a mastery...a lifelong skill, so they may not get it by the end of first grade, but they may be pretty close."

*Subjectivity.* Participants described assessment in relation to student growth; this was not without some criticism of the system. Participant Six perceived the system in place for measuring growth as too subjective. Participant Five described the same concern with subjectivity. It should be noted that both Participants Five and Six are theatre educators, so the commonality in content area may be a contributing factor to the perception of subjectivity.

Participant Six, a theatre educator, cited data surrounding student growth as a positive element of the ePortfolio in the eInterview. However, in the video-conference interview she described her perception of the subjective nature of measurement of student growth and the challenge of collecting accurate data in the ePortfolio system:

The kids that make the greatest leaps, even though I can document it all day long, get the lower scores and that's very frustrating. Because if this is supposed to be about growth and performance, I'm sorry, but how can you not say that you have at least two levels of growth if you go from a script in hand at a first table read to a complete performance in front of an audience? That's growth...there's not a clear jump as to what makes you go from one level to the next. It's entirely subjective.

Participant Five, also a theatre educator, explained the challenge of defining emerging, proficient, and advanced student work without a district provided standard. He described his process in determining how to categorize his students to showcase in his ePortfolio:

There is no guideline about who is an emerging, proficient and advanced kid. That's just

up to us as an educator. I told you this before, my wife and I, we did our portfolio weekend on an Easter weekend, and that's when we decided to do it together, because she's visual art, I'm theater. We'll sit down and help each other out. And, it was in that course where we discovered, as we were putting in our evidence, and looking at everything that what we thought was emerging, was really proficient. And, what we thought was proficient was really emerging, as we were going through our collections. So, you start in a certain way. You think, okay, I think this is gonna be, but then when you put it up against the other evidence that you have of your student work, it might become clear to you at that point, you go, oh, this is really more of an emerging example, than a proficient example. Or, vice versa.

This analysis, as described by Participant Five, was happening outside the classroom and outside the school day (Easter weekend), indicating the emerging, proficient, and advanced criteria were not clear enough to determine in the moment to the two theatre teacher participants in the study. The subjectivity could be viewed as a contributing factor to increased reflection by the teacher. The process Participant Five described resulted in premise reflection regarding how he perceived student performance. He reported this analysis transformed his perceptions of what constituted emerging, proficient, and advanced performance and led him to greater specificity. The ambiguity in definition of emerging, proficient, and advance led to deep analysis by Participant Five. He exercised analysis and discernment to form his own definitions and standards, in order to aim for, document, and then defend the two levels of growth in students.

Elementary music teachers described more specific district identified goals, and consistently described growth as it related to specific skills such as pitch matching, rhythm pattern mastery, and mastery of choreographed movement (Participants One, Three, and Seven).

Based on the specificity in elementary music teachers' descriptions of benchmarks and standards, it may be that subjectivity is a factor in secondary grade levels, or it may be that curriculum development in certain content areas were a factor in subjectivity of assessment criteria. Both of these examples from secondary theatre illustrate an inconsistency in this content area for defining student growth levels, as compared to elementary music, where there seemed to be strong alignment. In any event, subjectivity and specificity in defining student growth impacted every participant's practice, and assessment was a focus for every participant.

*Data collection related to student growth and assessment.* All participants collected data illustrating student growth over time. Participants One, Two, Three, Four, and Seven included percentages of students mastering skills in their ePortfolio submissions. They examined the data they collected and worked to increase the percentage of their students mastering identified skills as part of their teaching process. Participant One explained in the initial, written eInterview, "My weekly instruction was driven by the student data and their need to improve on chosen skills, i.e., pitch matching. As I observed there was more growth taking place, I did multiple assessments at various points throughout the year."

When Participant Six was asked benefits of ePortfolio evaluation in the initial eInterview, she responded, "I am now able to present specific evidence and data for my students - this is something that I could not do before and is necessary to succeed in this current educational system." There was discord between this answer in the initial eInterview, and later responses in the video-conference, and face-to-face interview, in which she described the assessment criteria as overly subjective. She explained in the phase two video-conference interview that documented growth was not authentic as compared to the higher levels of growth her students were actually

experiencing, which often were not caught on video. The documentation had a value in that it aided in advocacy.

*Impacts on planning for student learning.* Participant Two described not only assessing with more intentionality, but also scaffolding to ensure skill building. She described not only doing a pre- and post-assessment for learning, but also described adding a mid-point assessment. She referred to the final assessment as a “post-post”. Her goal is to ensure not only mastery of content, but also long-term retention:

I think it [ePortfolio evaluation] made me more conscious of the long term when we started doing post-post...I started taking my lesson plans and saying, okay, how can I use the skills that I introduced in week one to week nine, how can I continue to build on those as building blocks?

High school theatre teacher, Participant Five, explained his lesson planning process was impacted by the ePortfolio evaluation system, especially in terms of student growth potential. This excerpt is evidence of process reflection that occurred as a result of ePortfolio engagement in this participant:

I structure my unit on monologue performance around the idea that I have to show growth. I start by having them choose their monologue and do a first read in front of the class. They then have to memorize it and complete character questions (from Uta Hagen’s *Respect for Acting*) and they have to score their monologue (I have a unit on how to score a monologue) They then have to perform the monologue by memory in front of the class. The students watching have to write three things that worked, and three things to work on. I tape this performance for the portfolio. After each student has performed their monologue by memory, we then enter our workshop phase where two to

three students work with me and the class on certain things in their monologue that could be improved. The workshop process takes one to two weeks. I do not tape this process. The students then have a final performance after the workshop. The final performance is in the theatre in front of the class and I tape that final performance. The entire idea of the workshop was developed knowing that I had to show growth from point A to point B. Since the portfolio became a requirement, I always have student growth in mind in how I shape my lessons and how I document the growth.

Participant Five went on to explain, in a later interview, that the ePortfolio evaluation system required an adjustment to the planning process, which had pedagogical implications:

What the portfolio, I think, forces you to do, is it really forces you to think about student growth on a concrete measurable level, instead of just doing what you always do because it always worked. I think that's a thing for teachers, right. Well, I've got it done and I've always done it, and it's always been a good unit, so we'll do it. Portfolio kind of forces you to go ... And then, how do I really document this growth?"

*Examples of a lack of described impact of ePortfolio evaluation on teaching.* There were participants who did not attribute student growth or professional development to ePortfolio involvement. For example, Participant Six explained: "I'm growing them [students] but I'm not thinking about the portfolio as part of it...the portfolio, honestly, is the last thing on my mind when I'm in the room with the kids." Based on her explanation, the ePortfolio system had not translated to a perceived impact on her work in the classroom, on her lesson planning or scaffolding for instruction. Her descriptions did not communicate benefits of ePortfolio on assessment. When asked how she diagnosed learning needs of her students she replied,

I don't really have a good way of doing that, especially with the intro level. I usually

spend about the first half of the first quarter of school getting to know them personally and knowing that their schedules are gonna change six times in the first three weeks of school. We do a lot of ... writing, talking, questioning, just getting kids into that kind of reflective mindset. I just assume that they come from a place that they've had no formal [theatre] education. I start from there.

Through the interviews, there was not an indication that her focus on student reflection was a result of her engagement in ePortfolio development. Reflective practice in relation to her own work of crafting her lessons and curriculum was described, but this was in relation to her own personal approach to teaching, not in relation to ePortfolio. Later however, she described benefits of ePortfolio as they related to peer evaluation, which is explored in a later section. Her exact words in reference to peer evaluation were “that’s where the magic happens”.

Participant Four, the most veteran teacher participating in the study with 38 years teaching experience, had been participating the ePortfolio evaluation for the shortest amount of time (three years). When asked, “Describe a time when collecting evidence of student growth impacted how you perceived a student’s learning or a student’s ability to learn?” she replied: “I don’t know that it has. I’m just thinking. Oh no, I don’t think it ever really has. I don’t think that has made a big difference.” Therefore, not every participant perceived an impact on their approach to their craft of teaching. It should also be noted that this participant had the least experience with the ePortfolio process, and the most years experience as a teacher. She opted out of completing an ePortfolio in 2017-2018 (the year of this study) because she was retiring, so it was not required of her.

*Process vs. Product.* While the high school orchestra teacher, and one of the two high school theatre teachers did not describe a shift in focus from product orientation to process-

driven instruction, one high school theatre teacher, all three elementary music teachers, and the elementary art teacher described previously being focused on programs and products until the portfolio provided incentives to strengthen assessment shifting focus to student growth and process. Participant Two, an elementary art teacher explained that the ePortfolio process required a shift in perspective from product to process in terms of student growth:

It's not about a lesson plan; it's about what the students are going to learn, how they're going to learn it, and how they'll use it later. And I think the ones that have trouble with portfolio, a low score, are ones that just present a lesson plan.

She went on to explain the shift from a showcase portfolio type, which she was accustomed to as an artist, to a process-based ePortfolio:

I believe that most of us, when we think portfolio, because of our art background, we think of our best finished products... . That you show off your best work. And through this portfolio process, the ePortfolio process, I think what we ... I know what I have learned to do is to think about the overall picture, the overarching goal, which is you ... There's four domains: Create, Perform, Respond, and Connect, and it's to see ... . My goal is to make sure that I'm preparing the children for that overarching goal of, "Can they create? Can they choose their own symbols and ideas to go into a picture?"

Elementary teacher participants consistently described a positive shift from product to process in their focus. They articulated definitive strategies for measuring skills such as pitch matching, skill building in art making, and critical thinking skills, coupled with an appreciation of shifting their focus to growing every student. Not all participants held this perception though. Participant Four, a secondary orchestra teacher, identified a downside to the process-oriented element of the ePortfolio:

It has taken away a lot of the emphasis on performing. To me that is what really sets the fine arts apart from other subjects. Now we have to spend lots of time writing and reading, but really that is covered in their academic subjects. The students are tired of sitting still and they want to move around and make music. I know some teachers just sit around and do nothing, so this holds them accountable, but most music teachers want their students to be successful musicians.

The perception of a focus on process over performance was framed differently by Participant Seven who explained that focusing on process helped her achieve a stronger product:

I have become way more process-oriented, because in the beginning it was like, okay, I'm going to perform, perform, perform. They want to see an end product, so ... that's what, being a music teacher... We naturally would go to that, but as I started moving forward, I started really becoming more process oriented... .

Participant Seven went on to explain that the process of writing was a tool she was using to help understand struggling students:

I was thinking about using that writing and seeing, "Okay, if they can't show me on the instrument, maybe they can tell me, or they can write it, you know, verbally tell me." I would video them speaking on interviews and with things like that, so I became way more process-oriented, because I'm like, "Okay, maybe there's something I'm not doing right, as to why they not getting the end product I'm expecting to see."

Participant One reiterated the focus on process over activity:

I tended to be more focused I think on the end goal of the activity, whereas the portfolio really drove me to push particular skills, and objectives. So, instead of just playing the

singing game, really giving my kids the feedback that they needed to actually improve their singing voice.

The focus on process was perceived by most participants as positive and was described by one participant as a negative outcome because it shifted focus away from the course being exclusively performance focused. The descriptions of a shift in perception and action from product-oriented instruction to process-oriented instruction were evidence of premise reflection, and in five participants serve as evidence that transformative learning occurred, as defined by the conceptual framework of this study.

*Habits of Mind.* Two participants overtly described a definitive habit of mind centering on student growth. While all participants were focused on documentation of student growth, two participants explained a definitively internalized habit of mind centered on student growth as their way of viewing of teaching and learning as a result of ePortfolio participation. Participant One explained, “That’s just the way my brain works now. I’m looking to grow every child and making sure every kid gets better at what we were doing.” Participant Three described being outside of the classroom setting, at a conference, one year following his time teaching in the district, and viewing a presentation. His analysis of the presentation was through the lens of student growth as practiced in Tennessee through the ePortfolio evaluation system:

When I was at conference a couple weeks ago, somebody did this incredible artifact of showing the growth of her students...I remember thinking as I watched this, she’s from a totally different state, but I thought, “I wonder how this would be scored if it were being scored as a Tennessee portfolio artifact?”

The ePortfolio system in Tennessee provided an approach to teacher evaluation that was centered on student growth over teacher behavior. At the time of this writing, Participant Three

was in the role of Doctoral student, and through that work was observing teachers. His description indicated the ePortfolio growth model impacted his perceptions of how teachers should be evaluated. Following his six-year involvement in ePortfolio evaluation, a year later, in a new role and another setting Participant Three explained, “I observed a lesson a few weeks ago, observed the teacher teaching. The classroom was rather rambunctious. The truth is, they were extremely creative. I was really impressed with the growth.” These descriptions illustrate the two participants developed a habit of viewing student growth as evidence of teaching, over teacher behavior, and teacher action in the classroom. In this system, a teacher’s focus on developing every student’s artistic skill emerged as a habit of mind for some participants.

*Domains: Create, Respond, Perform, Connect.* The standards in Tennessee are organized under broad strands referred to as domains. All seven participants referred to each of the four domains frequently and by memory (Create, Perform, Respond, and Connect). According to the participants, under the previous system run by their district, not by the state (and housed in the on-line GLADiS platform) teachers were required to include three of the four domains in their four evidence collections that made up their ePortfolio submissions. This requirement caused fine arts educators to expand their repertoire of lessons and approaches to instruction.

Participants described expanding the student experience to ensure a minimum of three domains were experienced by the students, even when this resulted in lessons that were outside the teachers’ comfort zone. Further, the requirement of collecting evidence of lessons from three of the four domains resulted in accountability to the state standards. Participant Three was new to teaching in public school when he began the ePortfolio process. He explained the requirement to include three of the four domains had tremendous impact on his development as a music teacher, “I was starting to look and see and start to ask, am I really doing some of these things like create,

respond and connect? Or am I just focusing on performance? Since then, I've been asking that question a lot."

Participant Three went on to describe an elaborate movement unit in which he used folk dance as an inspiration for growth and meaning making in students to meet the Connect domain requirement. He described his work with students as co-constructive, further evidence of the process-based approach he adopted in growing his students in the arts. He showed the evidence collection of video from that unit in his ePortfolio review through a screen-sharing ePortfolio review. The unit was a difficult undertaking, and resulted as a source of great pride, not only for him, but also for the students, school, and community as was evidenced by artifacts he shared in the phase three ePortfolio review. An elaborate folk dance was learned by the students and publically performed. This was a positive experience resulting from the exploration of the Connect domain, which many teachers, as explained later in this section, intentionally avoid.

When asked, "Thinking back to when you started in the ePortfolio evaluation process, how has your teaching changed or grown from that time until now?" Participant Four responded:

Well, the main thing that I have added more of is Create because you have to cover ... there's four domains, and then you have to cover at least three. I was already covering history and theory, but I wasn't doing a whole lot with Create, and so I added Create. I've been doing a lot more Create with my students.

It was evident her inclusion of the Create domain was directly due to the accountability the ePortfolio creates, and compliance with the requirement of including three of four domain based collections in the ePortfolio submission because later she went on to explain:

While Create is important, I feel like that my primary thing I'm doing is helping them to be a better performer. Realistically, since I was retiring this year and I didn't have to do a

portfolio, I pulled the Create back out again because I didn't have to do it because the only reason I did is because I had to.

This was evidence that the accountability to provide evidence of growth within three of four domains resulted in an experienced participant adjusting her practice to explore an otherwise ignored domain.

Participants agreed that the Connect domain was the most difficult to exhibit. Only Participant Four expressed ease with the Connect domain due to the music history element of secondary orchestra. Participant Two, (elementary art) explained, "Connect is impossible because I have to connect that to their growth in that other subject. So, math or science, or whatever. That one I try to stay away from. I hate to say it, a lot of people do." Participant One did not explore the Connect domain in his ePortfolios, explaining, "I avoid Connect like the plague and I lean towards Perform or Create." Even though Connect was a difficult domain in the perceptions of most of the participants, the ePortfolio system allowed opportunity for dialogue between teachers and their administration for potential areas for development.

Participant Seven explained:

I'm just finding more professional development to go to and better ways I can teach different things. For example, our supervisor, actually it's at the end of the year, we had a little survey. It said with the portfolio, how comfortable are you on this? I said, "Well I'm comfortable on all the areas except connect. That's the only one I have not used." From what I've been told it's very difficult to show growth in, very, very difficult because connect means you are showing growth in connecting music to other arts.

The intentional surveying of teachers by administration, and the common language associated with the standards, creates an avenue for teachers to self-assess and communicate where they

need development and growth. Addressing the domains in instruction, and documenting results in ePortfolios emerged as a theme that was addressed in thick and rich descriptions by each participant in the study. While there was some confusion regarding how to show growth within certain domains, especially Connect, the ePortfolio provided motivation and accountability to teach in a minimum of three of the four domains, and to seek professional development to address domains that have been outside a participant's comfort zone.

In response to the research question regarding how ePortfolio evaluation impacted the craft of teaching in music, theatre, and visual art, all participants cited intentional development of lessons and units within domains that they otherwise would not have explored as deeply with their students. All content areas reported an intentional focus on student growth. Elementary music exhibited the clearest understanding of how to measure for growth. Participants who taught theatre reported subjectivity surrounding growth standards within their content area. All participants described process reflection, and five of the seven participants described transformative professional development, shifting perspective from product-oriented instruction to process-oriented instruction as a result of premise reflection stemming from ePortfolio engagement.

**RQ3. How do ePortfolio evaluations double as a professional learning tool for a music teacher? A visual arts teacher? A theatre teacher?** Beyond the reflective component addressed in Research Question 1, service as a peer reviewer leading to professional development was a definitive theme. Every participant in this study had served as a peer reviewer. All seven participants described the opportunity to examine student growth collections from other teachers' classrooms as valuable to their own professional learning.

Each participant verified teachers did not receive feedback beyond a number score in the ePortfolio evaluation process, which they described as a challenge in their ePortfolio experience. Written feedback provided by a peer reviewer was only seen by administrators; it was not shared with teachers. None of the participants could explain why, and all of the participants wanted to be able to see the written comments made by the peer reviewers. As a result of the limited feedback in the form of a number, professional learning, in the perceptions of the participants, was a result of analyzing other teachers' work. Through the peer review process, participants described increased proficiency in creating their own ePortfolio submissions, and improvement in how they approached their own teaching. They also perceived the peer review process as professional development as a result of gaining lesson and unit ideas for use in their own classrooms. Further, they described an increased willingness to share best practice related ideas as a community within their content areas, as a result of documenting work which created the ability to share their professional practices with one another.

**Perceptions of peer review as professional learning.** Participants unanimously reported that the being a reviewer in the peer review process aided in their development as an educator. Fine arts teachers are often isolated on their campuses as the only teacher in their content area of music, theatre, art, or dance. Participants explained that seeing other teachers' collections, and how they communicated their work through their narratives, was valuable to their development as fine arts educators. Participant Six, when asked, "It seems like the peer reviewing process...has had a positive impact on your professional growth?" replied, "Yes, and I would say that every peer reviewer that I have come in contact with would agree with that statement as well."

Participant Six, who described gaining little from creating her own ePortfolio for

evaluation, explained the value to her learning and growth from being a peer reviewer. She explained lessons she had gleaned in detail as a result of peer reviewing other teachers' ePortfolios. She described ways that she had reflected upon and refined her own lessons, and her ePortfolio submissions, based on what she learned through peer reviewing. She referred to the benefit of peer reviewing as a form of "best practice sharing". She explained that professional development for theatre was not consistently content specific (theatre teachers were asked to attend professional development designed for English teachers, a completely different content area with different standards and targets). This caused another benefit to emerge in the data, the documenting of work in a sharable format. Participant Six explained,

When we go to PD [professional development], like well, just go with your other English teachers. No, it doesn't work like that. And we never get the chance to go and watch each other work. This is the only way that we're able to do that.

I asked for clarification, "So in your professional development, because people had documented their process, they were then able to share it?" She explained that the requirement to document created collections created opportunity for the work to be voluntarily shared in a professional development setting with other teachers in her content area. This was valuable in creating targeted professional development experiences specifically designed to serve the theatre teachers. Her reply was:

Right. But we're not supposed to share that information [due to a peer review confidentiality agreement]. So we would volunteer up our own collections to do that...it was great. It was like a lesson sharing. It was a project sharing. And that was great PD for us.

Participant One explained a reflective benefit beyond lesson sharing: "When I started doing

the portfolio, it enhanced my level of reflective thinking. But going in as a peer reviewer and having to get the small glimpse into other people's classrooms, and seeing what their students are doing, it really makes you think about the process even more." Participant Seven explained that peer reviewing aided her perspective shift from product to process. This perspective shift, according to the conceptual framework of this study, was premise reflection resulting in transformative learning and qualified as professional development:

My scores were usually pretty good, but I also was a peer reviewer, as well, and I would see other people who did portfolios and I saw ways that they were testing their growth, and I'm like, "Oh, now I've never thought about doing that." Because I always thought that they just wanted to see the end product. I wasn't really thinking about the actual process along the way. I was more thinking about the end product, so I started using writing and letting them write about concerts or their own performance, things like that, so I could see what the students were thinking and how they were thinking. That kind of guided my teaching in a way to where I could kind of gear them toward better post-test or end products.

In response to the research question, peer review elicited the most direct evidence of perceived professional development from participants. Participants in each content area (music, theatre, and art) perceived peer review as an opportunity to observe best practice, to glean lesson, unit, and documentation insights, and to reflect more deeply on the craft of teaching.

#### **Chapter 4 Summary**

This chapter presented the findings of this qualitative case study. Findings were presented first thematically in tables with categorical codes organized within each theme. Findings were then discussed in relation to each of the three research questions. The participants consistently

reported student growth as the focus of their instructional practice as a result of engagement in ePortfolio evaluation. The theme of student growth was accompanied by a stronger focus on process and scaffolding instruction to intentionally grow skills in every student. The perception of impact on assessment and planning were explained in rich and thick descriptions, especially those made by elementary teachers. One secondary theatre teacher provided description of the role ePortfolio played in his lesson development, which shifted to focus on student growth and developing lessons and units that could provide evidence of growth. It was clear in his descriptions that his approach was intentionally centered on student growth over teacher action.

Two high school teacher participants described subjectivity in definitions of emerging, proficient, and advanced, and one perceived a shift away from performance as an emphasis in her orchestra classes. However, every participant described a focus on student growth. This perception was consistent regardless of their perceptions of the ePortfolio's role in that focus. Each of the seven participants described how they thoroughly documented student growth in their ePortfolios. The perceptions of the impact the ePortfolio documentation process had on teaching practice was strongly perceived in five of seven participants who described premise reflection and transformative learning from product to process focused instructional approaches.

Participants expressed benefits to participation including the fact that ePortfolio was tailored to their students, and also that ePortfolio participation saved jobs by measuring their own student's growth rather than reliance on a standardized test score outside of their content area. However, participants also expressed areas of concern with ePortfolio evaluation including the amount of time outside of their normal workday necessary to complete the ePortfolio submission. One participant described devoting the entire Easter weekend to assembling his ePortfolio. Participants reported between 25 and 100 hours each devoted outside their workday

to ePortfolio development. All participants expressed frustration with the lack of feedback beyond a number score.

Data further revealed an increased focus on process over product. Participants consistently described substantive professional knowledge of the domains within the state standards. A clear common vocabulary centered on student levels (emerging, proficient, advanced) and domains (Create, Connect, Perform, Respond). Student growth emerged as the focus of the participants. The data suggests that peer review in the ePortfolio process in Tennessee is perceived as opportunity for professional development amongst the participants. The data further revealed a consensus amongst participants that a lack of written feedback in the ePortfolio evaluation process interferes with their perceptions of the ePortfolio as a tool for reflection and professional development. This concept is further explored within the conceptual framework of this study, in Chapter 5.

## **Chapter 5: Discussion and Conclusion**

This chapter includes a summary of the significant findings based in a conceptual framework blended of Mezirow's Transformative learning theory (1991) and Schön's theory of reflection-in-and-on-action (1983, 1987), a discussion of the results, limitations of this study design, and implications of the results for practice, policy, and theory. This chapter also contains recommendations for further research that resulted from study findings.

### **Summary of the Results**

This qualitative case study involved seven participants, six fine arts teachers from a single public-school district in Tennessee and one former teacher who had been employed previously in the same district. The case study explored their descriptions and perceptions of professional growth resulting from an ePortfolio teacher evaluation system. This study revealed premise reflection resulting in professional growth related to ePortfolio evaluation as described by five of seven participants. Those five participants reported a shift from a focus on product to a focus on process and planning for student growth. Reflection in and on action was described by all of the participants as a result of engagement in ePortfolio evaluation. EPortfolio engagement was not without challenges, including reported challenges surrounding time, training, and technology. A lack of feedback on their submissions was a challenge participants described.

**Statement of the problem.** Race to the Top legislation focused on finding teacher evaluation systems that measured student outcomes (Choi & Park, 2016; Kraft & Gilmour, 2016). That legislation was the result of The Widget Effect Study, which stated that 99% of teachers were rated as good or great performers in their teacher evaluations (Weisberg, Sexton, Mulhern, Keeling, & Schunck, 2009). The ePortfolio system explored in this study was developed by fine arts educators beginning in 2010, one year after the Widget Effect study was

published. Eight years later in 2018, the Nashville Tennessean quoted a spokesperson from the Tennessee Education Agency who stated that 80% of teachers in Tennessee were ranked at proficient or higher under this evaluation system for the 2017-2018 academic year. That is a definitive difference from the 99% reported in the Widget Effect Study. It should be noted that there was controversy from the teachers' union regarding validity of the rankings and a technological glitch was cited as the reason for score discrepancy (Gonzales, 2018). The state has since changed ePortfolio platforms (Spears, 2018). Regardless of this controversy, the questions of this study are centered on the potential for growth and development of teachers coming from an ePortfolio system. EPortfolio is noted in the research as a vehicle for reflective practice (Enyon & Gambino, 2017; Heath, 2002; Landis, et al., 2015; Pitts & Ruggirello, 2012). This study investigated perceptions of reflection and professional growth of seven fine arts teachers engaged in the system for three or more years.

**Theory.** The primary goal of this study was to investigate fine arts teachers' perceptions of an ePortfolio evaluation model as a vehicle for professional development and growth in their craft of teaching. A blended conceptual framework of Mezirow's (1991) Transformative learning theory with a focus on premise reflection, and Schön (1983, 1987) theory of reflection-in-action and reflection-on-action were applied as a lens for the data analysis and interpretation for this study. This blended conceptual framework supported the assumption that reflection occurred as a result of engaging in ePortfolio evaluation (Enyon & Gambino, 2017; Heath, 2002; Landis, et al., 2015; Pitts & Ruggirello, 2012).

Analysis of the data revealed premise reflection, defined by Mezirow (1991) as a form of reflection that results in perspective transformation, was described by five participants who had been involved for more than three years with ePortfolio evaluation. Their premise reflection, a

form of transformative learning, was reported as a shift from activity and product-driven teaching to process-oriented instruction with intentional scaffolding resulting in lesson and unit development.

### **Discussion of the Results**

**Reflection-in-action.** Reflection-in-action, in which our thinking impacts our choices in the moment (Schön, 1983, 1987), was evident in the data and reported by the participants as a result of ePortfolio participation, especially throughout the reviews of their ePortfolio collections in the face-to-face interview. More prevalent was reflection-on-action (Schön, 1983, 1987) in which participants thought back to what they had done and made discoveries about their teaching and student growth.

Data from transcripts revealed in the classroom setting, formative assessment was occurring focused on student growth. Participants described actively assessing students in real time during class, as opposed to after the fact (which would be reflection-on-action, which was described in the viewing of videos of their students' work). The real-time reflection-in-action involved adjusting strategies and tactics to ensure growth, even in the highest performing students that were already performing at mastery level. Participants reported multiple strategies they incorporated into their teaching arsenals to assist lower performing students in achieving skills and objectives, and in growing higher level students. All seven participants shared the great efforts they made to structure for, and document, student growth resulting from their work.

**Reflection-on-Action.** Reflection-on-action (Schön, 1983, 1987) in which participants considered their teaching outside of the classroom and adjusted elements based on reflection, was evident in the data in multiple forms. The use of video as a documentation method resulted in watching students more than one time, and participants explained at times that this allowed for

observations of elements that went unseen in real time in the classroom. When Participant One was asked: “Do you learn things from watching the recordings of them?” he explained that he was one person in a room with twenty-five Kindergarteners, and then he went on to explain:

You know you want to be only focused on that one child, but that’s not a thing. It does help to go back and view them and go, “Oh.” Sometimes it was ... they were better than I thought they were. Sometimes it is especially like xylophone things, I’ll go back and I’ll go, “And that was really sloppy; that’s not what we needed.” Because if I’m focused on one kid playing a xylophone, sometimes my ear will tune out some of the other ambient noise in the room, so you do find out some things like that. You go and you re-evaluate, you go, “Oh, the next time they come I need to change this in my teaching.”

This is evidence of reflection-on-action resulting from the practice of video recording to collect artifacts for illustration of student growth in the ePortfolio.

The discernment required in selection of evidence collections, which was reported to be time consuming (participants reported a range of 25-100 hours dedicated to curating evidence and assembling evidence collections into ePortfolios), was further evidence of a high level of reflection-on-action by participants. Participants described critical analysis surrounding placement of student work into categories of emerging, proficient, and advanced. Participants further described intentionally structuring learning experiences to maximize student growth. They also described efforts to develop professionally, and get outside of their own comfort zones. Each participant described implementation of lessons and units they would not have otherwise taught in effort to ensure three of the four domains were represented in their collections. All of these actions are evidence of reflecting on process, whether it is in the moment

(reflection-in-action) or after the teaching has occurred (reflection-on-action) occurring as a result of ePortfolio engagement.

**Perceptions of reflection.** When asked what reflection in relation to ePortfolio meant to him, Participant Five responded that reflection was not a factor in the ePortfolio experience. However, he also noted the opportunity for self-reflection as a benefit of ePortfolio participation in the same eInterview. This discrepancy in the data could be evidence of a lack of consistent definition of reflection and its role in the ePortfolio process. While participants held a common perception and definition of student growth, reflection did not have a common definition amongst participants. At times, reflection was described in terms of what Mezirow (1991) would term, introspection, which involves thinking about our own thoughts and feelings and does not extend to processes and testing of validity. Other times reflection was referred to in terms of validity testing and process examination. Through the three phases of the interviews it became clear that reflection was occurring as defined by the conceptual framework of this study in every participant, however, there was not a common definition. There was also not an overtly stated goal of reflection as a part of the process according to four of the participants. Reflection may have been more covert, as a by-product of the process, rather than an overt element explicitly stated or taught in the process and training elements.

One participant defined reflection in relation to the ePortfolio process as a form of reporting rather than analysis involving discernment. This is not aligned to definitions of reflection in the literature. The participant explained the role of reflection as, “This is a place where you can tell your story. How frequently you meet, how many students receive free lunch, whether or not you have a feeder program, if you were out on maternity leave, etc.” This served as further evidence there was not a consistent perception regarding the role or definition of

reflection amongst the participants in this study. Reporting of action involves no examination of validity of prior learning, or investigation of problem solving processes, which disqualifies the cognitive function of reporting as reflection (Mezirow, 1991).

For the purpose of this study, with a blended conceptual framework centered on the role of reflection as a transformative learning tool, transcripts were analyzed for evidence of professional learning in the form of reflection, or in perspective shifts resulting from reflection. Reflection, for the purpose of this study, was defined as the conscious scrutiny and exploration of what is known and the testing the validity of our existing meaning schemes, allowing discovery to transform our perspectives (Dewey, 1952; Mezirow, 1991; Schön, 1987). In analysis of the data, all seven participants, through the act of scrutinizing student work samples to categorize them effectively into three levels, described reflection. Participants each described reflection through the process they underwent to define and assign growth scores to each student's work.

Five of the seven participants described premise reflection, which is defined as analysis of one's perceptions and results in growth and a shift in perspective (Mezirow, 1991). Premise reflection was evidenced by shifts described from product to process oriented approaches to teaching. Additionally, Participant two stated, "Personally I think I've grown more to appreciate the students' process over a product." Participant One explained, "...I tended to be more focused I think on the end goal of the activity, whereas the portfolio really drove me to push particular skills, and objectives." Several participants' explanation of premise reflection was evident in data shared in Chapter 4. For example, Participant Seven explained, "We have kids perform a lot. We naturally would go to that, but as I started moving forward, I started really becoming more process oriented...". Participant Three explained, "I was starting to look and see and start to ask,

am I really doing some of these things like create, respond and connect? Or am I just focusing on performance?” Each of these examples serve as evidence of premise reflection and a shift in perspective from being oriented toward the product (a performance), to process orientation, focused more on student learning and development as a result of examining their work through participation in ePortfolio evaluation.

Process reflection was defined in this study as reflection that occurs when one discerns impact of steps in a process (Mezirow, 1991). All seven participants described process reflection. All participants described either scaffolding for instruction to promote student growth or developing specific lessons and units to ensure three of four domains were explored, as a direct result of the ePortfolio process. Process reflection was overt in the data. For example, Participant Five described process reflection in relation to lesson planning:

I guess what I'm doing is I'm just tweaking, morphing and adding into what I'm doing now, taking some things away. There is definitely a lot of room for improvement always. I'm just thinking about what I put in my portfolio this year and how I could improve those lessons next year to be a little bit clearer and keeping that growth in mind.

As a result of engagement in ePortfolio evaluation, participants described all three types of reflection: reflection-in-action, reflection-on-action and premise reflection. In five participants, premise reflection reportedly resulted in transformative learning. The perspective shift from product to process oriented practice facilitates growth in all students. This shift in perspective is evidence of professional growth in the form of transformative learning resulting from ePortfolio evaluation participation.

While the accountability element was clear regarding domain coverage, the reflection-on-action in analyzing domains was consistent amongst participants. Developing lessons and

experiences in domains not explored previously required reflection from the participants. In six participants premise reflection was described regarding process vs. product-oriented approaches to instruction. Transformative learning was described by five of the seven participants who described shifts in their perspectives regarding a process vs. a product driven approach to fine arts instruction. Most notable were Participants One, Two, Three, Five, and Seven all stating that their teaching evolved from being product-oriented to process-oriented as a result of the ePortfolio focus on proof of student growth. The evidence, outlined in Chapter 4, clearly suggests the participants' professional craft was impacted through the ePortfolio evaluation process.

**Student Growth.** Beyond a shift from product to process-oriented work, a focus on student growth as a habit of mind was apparent as a result of engagement in ePortfolio evaluation. Student growth was the single most coded in Vivo phrase in the transcripts of this study, coded 60 times. Every participant was committed to the concept of eliciting two levels of growth from each of their students. Participants who taught elementary music and art reported definitive, evidence based measures of growth, however, the two participants who taught high school theatre reported a more subjective view of growth. The theatre teacher participants still described a focus centered on student growth in their classrooms, over showcasing high achieving students or focusing solely on innate talent, despite finding challenges in how to define and measure growth in their practice. This ethic that resulted from ePortfolio evaluation speaks to a more equitable arts experience for students. The skill development focus, over service to innate talent or showcasing of previous learning, which may have been the result of private lessons or cultural capital, speaks to the benefit of a student growth focused evaluation system in fine arts.

**Peer review.** According to participants' perceptions, peer review was the most apparent element of ePortfolios that contributed to their professional development. Participants reported lesson sharing as a direct benefit of peer review. Within the conceptual framework, which combined Mezirow's (1991) Transformational Learning Theory and Schön's (1983, 1987) theory of reflection-in-and-on-action, there was benefit identified in being a peer reviewer. This benefit emerged in the form of reflection-on-action (Schön, 1983, 1987) occurring during peer review, and subsequently reflection on one's own teaching practice resulting from being a peer reviewer. Participants unanimously reported reflecting on their own teaching as a result of getting glimpses into other teacher's classrooms. Through the experience of peer review, participants gained an opportunity to reflect on their own classrooms by analyzing the submissions of their peers. Participant One explained,

When I started doing the portfolio, it enhanced my level of reflective thinking. But going in as a peer reviewer and having to get the small glimpse into other people's classrooms, and seeing what their students are doing, it really makes you think about the process even more. Because you have to remember that there are so many different circumstances in that people teach in across the state. So growth for me, isn't the same as the growth for another teacher because they teach ... their students start a different place. Because the amount of times they see them, or the socioeconomic class, or the backgrounds of those kids or ... and what we're really scoring is growth. And really looking for growth in the children. I no longer look for, and I think that's helped me in the long term, to not look at the achievement of the kids, I'm never concerned now when my kids come in that, "Oh look, they already sing on pitch, that's enough." It's how and where we grow that. Oh look the kids came in, oh look, they played the recorder perfectly the first time. Well

now, that's great, so there goes that scale. It's how am I going to grow that? And how are we gonna get better doing it?

Additionally, substantive analysis of the domains emerged as a result of viewing other teachers' interpretations what evidence qualified in each of the four domains. This resulted in teacher led professional developments and exploration of potential approaches to each domain as applied to student growth and development. Participant Six explained,

That has been the thing that has been most helpful to me. And I think probably most helpful to the other theater teachers is not putting the portfolio together for somebody to score, but putting a portfolio together and then looking at what other people did and getting ideas from them and seeing what they were able to do and thinking, oh gosh, well I could do this or that. It's the best practice sharing, which, like we talked on the phone, I somewhat difficult, because as peer reviewers, we're not supposed to share anything we see and in anybody's portfolio.

While participants did not directly attribute ePortfolio to reflection in the initial eInterview, through their descriptions of action surrounding accomplishing the requirements of achieving two levels of student growth, and exploring three of the four domains in the state standards, it was clear that ample reflection in and on action was occurring. Premise reflection was a by-product of the cultural shift that the ePortfolio produced. This translates to professional growth resulting from participation in ePortfolio evaluation, as defined by the lens of a blended conceptual framework of Mezirow's (1991) Transformative learning theory and Schön's (1983,1987) theory of reflection-in-action and reflection-on-action.

**Significance of results to the problem of teacher development.** Through the course of this study, the participants described the ePortfolio as an opportunity to showcase and defend

student growth occurring in their classes. Additionally, the common perspective of the seven participants that the ePortfolio served as a vehicle to save jobs, especially for high performing fine arts teachers serving in low performing schools in which they would have been forced to accept the school's standardized test score as a significant percentage of their evaluation scores. The ePortfolio in this scenario served as a tool to collect data to support their cases of being highly effective educators in the fine arts, worthy of maintaining employment. According to the participants, the ePortfolio served that purpose.

The Tennessee Department of Education (2017) conducted a study that identified a gap in teachers' perceptions regarding ePortfolio evaluation and impact on practice. Teachers surveyed did not perceive professional growth resulting from ePortfolio; however, quantitative results showed otherwise. In the report "results suggest that participating in the portfolio process leads to improvements in key teaching practices" (p. 6). Despite this quantitative improvement, the report further states, "teachers are not yet recognizing the value of using a portfolio" (p. 8). The disconnect between quantitative data and teacher perceptions served as an inspiration for the questions explored in this study.

The seven participants in this qualitative case study provided descriptions of awareness of the impact ePortfolio had on their practice as fine arts teachers in terms of reflective practice. However, three participants were not defining reflection in the same way the literature defined reflective practice. Three participants described introspection as opposed to premise or process reflection. Introspection is based on how one felt about a lesson, or a process, and is not the same as reflection, which involves validity testing of a specific process. Reflection is related inspection of practice, and involves metacognition as it relates to validity measures. Reflective practice involving investigation of validity can lead to transformational premise reflection

(Mezirow 1991) that changes entire approaches to teaching and learning. The definition of introspection and reflection differ greatly, but that was not evident in the interviews with Participants in this study. The lack of a clear definition of reflection could have impacted teachers' reported perceptions surrounding professional development as it relates to ePortfolio.

**Time.** Reflective practice requires time. Participants did not perceive time is granted in the ePortfolio process to aid in development and reflective practice. Participants described a range of 25-100 hours outside of their workload, on weekends and evenings, devoted to creating their ePortfolio. One participant described devoting his Easter weekend holiday to ePortfolio development. The time factor created morale issues that could be overshadowing perceived gains resulting from participation. Participant Five explained in the phase one written eInterview:

As a theatre teacher, we commit so much of our time to our students after school producing and rehearsing shows, taking them to the Thespian Conference, speech tournaments, and working on various other projects (one-act plays etc.) The portfolio is a time consuming process on a profession that is already very, very time consuming.

Time was a recurring challenge cited by participants. This was consistent with research by Attinello (2004) surrounding ePortfolio evaluation for teachers. Consideration regarding giving time for this process is important prior to implementation. It should be noted that Participant One labeled time as a “double-edged sword”. He explained that while the process is time consuming, the benefits can only be gleaned through time spent in reflection and examination of process.

The United States education system notably allows for less planning time for educators than other high performing countries like Finland and Singapore. Sahlberg (2015) explained that in Finland, “Teachers teach four hours per day and are given time for preparation” (p. 91) as opposed to the United States where “teachers teach 6 hours per day” (p. 91) and are given a 45-

minute planning period. Darling-Hammond has also addressed the issue of teacher time in the United States:

U.S. teachers have no time to work with colleagues during the school day. They typically receive only about 3 to 5 hours weekly in which to plan by themselves, and they get a few 'hit and run' workshops after school, with little opportunity to share knowledge or improve their practice (2010, p. 201).

While participants reported the ePortfolio provided a vehicle for sharing knowledge and improving practice, they also reported that ePortfolio engagement is time consuming. This may be time that teachers in the United States are not granted as a part of their workday, unlike some other high performing international countries. Engagement in reflective processes to develop in their craft may result in positive outcomes in regards to student growth, however, time was a factor reported over a decade ago in Attinello's study, and remained a reported factor in this case study.

### **Discussion of the Results in Relation to the Literature**

The literature revealed a strong tie between reflection and ePortfolio development, which was supported by the findings in this study. The ePortfolios developed by participants in this study were assembled over time and showed two, and sometimes three levels of growth in students. Reflection, as defined in the literature, occurred as a result of ePortfolio evaluation in this system. Participants engaged in reflection in and on action as described by Schön (1987) and premise reflection as described by Mezirow (1991). Participants described a definitive shift from product-oriented teaching to process-oriented teaching. The examination of process related to ePortfolio is a key to growth prevalent in the literature (Eynon & Gambino, 2017; Firdiyewek & Scida, 2014; Landis, et al. 2015). Attinello, Lare, and Waters (2006) described ePortfolio as a

transformative tool for in-service educators in developing their craft of teaching due to the examination of process that results from assembling an ePortfolio and this study's findings illustrated that in fine arts teachers in Tennessee that premise held true.

Weisberg, Sexton, Mulhurn, and Keeling (2009) explained many traditional teacher evaluation systems lacked an examination of process and involve specific expectations outlined in a checklist that may or may not be observable in a single visit to a classroom. In ePortfolio evaluation, documentation occurs by the teacher, over time, through collecting artifacts to represent the process (Bullock & Hawk, 2010; Tennessee Department of Education, Division of Data and Research, 2017) these snapshots into the student growth eliminated the single visit issue often cited in the literature regarding observations. They also formed a reported habit of mind centered on student growth. This translated into a habitual examination of process reported by six of the participants, and further translated to premise reflection surrounding the value of process-oriented over product-oriented work in the fine arts classroom in five of the seven participants.

EPortfolio had been defined in the literature as one of the eleven High Impact Practices (HIP) identified in the university setting by the AAC&U (American Association of Colleges & Universities), because it allows for complex and integrative learning by providing a framework for reflection and connection across disciplines and serves as a tool for evaluation (Eynon & Gambino, 2017; Reynolds & Patton, 2014). While ePortfolio in teacher evaluation in the sense it is being used in Tennessee is not connecting across disciplines, the domain of Connect speaks directly to this goal. EPortfolio in this sense is serving as a tool for accountability to show work in the domains. In this study, connect emerged as the most difficult domain to explore for six of the seven participants. Since connections across disciplines was cited as being challenging for six

of seven teachers in this study, the tool of ePortfolio may serve as a vehicle to help teachers achieve success within that domain. The ePortfolio was cited by participants as creating a level of accountability to working across the curriculum through the domain of Connect. The ePortfolio additionally was the fuel for many discussions regarding what a set of Connect artifacts should entail. Additionally, because of the accountability to the Connect domain through the ePortfolio, participants requested professional development directly relating to that domain. Participant Three credited the ePortfolio to his self-described strongest unit connecting music and movement as a result of accountability to that domain in ePortfolio. While this accountability is not the same type of cross disciplinary opportunity described as resulting from ePortfolio use in the university setting, it is a viable force in not only being accountable to a process, but also in collecting documentation to examine and improve that process within, and across disciplines. The ability to share work with colleagues from across their district and state creates impact by breaking down existing silos in fine arts.

The ability of participants to have latitude in what they include in their ePortfolios is a benefit that allowed participants to explore at their own pace. This is consistent with a benefit to ePortfolio cited in the literature, that developing a portfolio allows learners to set their own goals, and challenge their perceptions through reflective practice (Attinello, 2004; Bond, 1999; Heath, 2002; Milman & Kilbane, 2005). Participants worked to analyze their student's learning and develop lessons and units that would continue to foster growth. This required a constant analysis of where their students were in relation to mastery, and how to move them further along an infinite spectrum of growth and development.

Premise reflection emerged in five of seven participants in this study as a major result of ePortfolio participation. The shift in perception from performance-oriented goals to growth

oriented goals was a form of professional growth that each participant came to on their own accord, as a result of engaging in reflective practice about their own work in relation to the growth and development of their students. Firdyiwiek and Scida (2014) explained a benefit to reflection: “Teacher reflection can support this development by pushing teachers to confront prior assumptions about teaching and learning, to question their own teaching practices, and to inquire not just what works in the classroom, but also why it works” (p. 115). This questioning and inquiry about why and how certain strategies worked was evident for the participants in this study and emerged throughout the data as a result of engaging in ePortfolio evaluation.

**Connections to the wider community.** Beyond the implications for culture in terms of giving the benefit of the doubt, participants described a culture of sharing ideas that emerged in their district, forming what could be described as a community of practice. This would stand to reason because teachers begin to habitually share their work through an ePortfolio process, and the ePortfolio provides a mechanism for that possibility. This indicated that application of ePortfolio in the fine arts setting might provide a vehicle for developing communities of practice in content areas where teachers may be isolated on their campus due to being the only teacher in their content. Participant Four explained:

I must say when I first arrived [in the district] I felt a little like the higher performing teachers were wanting to keep all their ideas to themselves so they would have one up on everybody else. You know what I’m saying? “This is my great idea and I’m not going to share it with you.” I feel like, and I’m not sure if it’s because of portfolios or because of [our supervisor’s] leadership or just what exactly has caused it, but I feel like the teachers are more interested in helping other teachers to be successful and sharing ideas that have been successful with them.

EPortfolio as a vehicle to document process resulted in sharing of best practices in this district as reported by participants. As Participant Four alludes to above, it is possible, combined with good leadership, that ePortfolio engagement provided the tools to create a cultural shift to a more open community of practice than existed before. Fine arts teachers are often the only person in their content area on their campus. Having been the only music teacher on his campus, Participant One had been isolated prior to ePortfolio evaluation. EPortfolio evaluation provided a vehicle for communication. He explained it as “expanding the conversation”:

I’m the only music teacher at [my current campus]. It’s just what it is. Often the person evaluating me doesn’t understand my content because my principal he was a special ed higher and lower. He never dealt with music. Without having a content specialist there to observe us and to really talk about how these forms of assessment some of the way you thought of things... you just thought of them somewhere in your first year and you went on. That was how you developed your idea. This really caused us to think about what we’re doing because now we’re having to share this with other people. Sharing and expanding that content and ... not expanding the content, but expanding the conversation about what we’re doing and how we define what we do and I think it’s up to us to become more specific.

He described the expanded conversation as resulting in an increased specificity regarding objective, assessment, and best practice. The phrase “increased specificity” emerged frequently regarding instruction and assessment; it was coded 18 times in the transcripts.

**Shared vocabulary.** There was a definitive benefit to the shared vocabulary all participants engaged in surrounding student growth, levels of growth (emerging proficient, advanced, level 1-5), and each of the Domains. This vocabulary allowed for substantive

conversations centered on assessment, learning, the state standards, and student growth. The common objective of student growth was the clear goal resulting from this system.

The definitive goal was to meet students where they entered, and grow their skills two levels from their individual entry point. Participants were concerned with growth in even the highest achieving students, which challenged participants' to continue developing in order to develop higher and higher achieving students in fine arts, even if it meant teaching beyond grade level benchmarks. The common vocabulary of "emerging, proficient, and advanced" led to greater specificity in choices relating to instruction, as described by participants in this study. In some content areas, such as elementary music, common measurement for those identifiers had definitive specificity applied, as reported by elementary teacher participants in this study. Although secondary teachers participating in this study reported more subjectivity, the vocabulary itself led to an analysis of student work that would likely not have occurred outside of this system. The shared vocabulary centered on student growth contributed to a community of practice, in which concepts could be discussed and explored with a wider community.

### **Limitations**

The primary limitation in this study was that there were only seven participants, all employed in one school district. Additionally, there was only one visual arts teacher, and no secondary level visual arts teachers engaged in the study. There was only one secondary instrumental music participant. This leaves gaps in content areas of secondary band, choir, and dance within the fine arts. There were no middle school teacher participants.

The study was also limited in that the three phases of the study could have resulted in reflection on the ePortfolio process that could have had impacts on the data. Interviewing itself is reflective in nature, and could have created hindsight bias and difficulty in discerning which

statements were a result of reflection as a by-product of ePortfolio engagement, or reflection as a by-product of the three phases of the study.

The change in technology platforms from GLADiS to Educopia also limited the study. Participants communicated challenges in learning and new system and held strong opinions regarding some of the changes in the system that could have negatively impacted their overall perceptions of ePortfolio evaluation. Additionally, participants lost access to past ePortfolios that contained several years of their documentation of student growth. This resulted in ePortfolio reviews that were not as complete as originally intended. Time also served as a limitation to this study. With only three months to conduct the study, analyze the data, and write the findings, time was a limiting factor for a single researcher.

### **Implications of the Results for Practice, Policy, and Theory**

**Implications for practice.** Accountability and/or growth are two purposes of teacher evaluation (Kraft & Gilmour, 2016; Papay, 2012). Kraft and Gilmour (2016) cited the accountability factor had led to a low level of trust between administrators and teachers. They explained a low level of trust negatively impacts growth opportunities for teachers in relation to evaluation. The factor of trust is a necessity for an ePortfolio evaluation system to result in growth. It was clear in the data that the participants held their supervisor in high regard, and had a high level of trust for him. This likely contributed to their professional development in relation to ePortfolio. This was evidenced by each participant's explanation that peer reviewing required them to give teachers the benefit of the doubt and assume the best intentions about the collections they were reviewing. This district's leadership had defined this as a key value in peer reviewing according to the participants. The value of "the benefit of the doubt" consistently emerged. Due to communicated values such as this, the ePortfolio evaluation system potentially

had further impact on the culture in this district's fine arts programs. The phrase "the benefit of the doubt" as applied to teachers' in peer review was coded 17 times in the transcripts.

The accountability to student growth created a focus in all seven of the participants on developing skills in students who were considered emerging, proficient, and advanced by at least two levels was also a value defined by the district. There was a definitive cultural focus amongst these seven fine arts teachers steeped in student growth. Student growth was the single most coded phrase in the transcripts, coded 60 times. The focus of their evaluation system on student growth created a culture focused on student growth.

***Benefit of the doubt as part of the culture.*** The culture of "benefit of the doubt" in this district, overtly stated by every participant in the peer review process, is an important key to learning and development. An objective of growth over compliance could assist in creating a culture of reflection and learning in a district. One participant explained her concern with the change in the philosophy of the benefit of the doubt as the system went statewide:

We had the flexibility in the old system...there's an awful lot of districts that have very inadequate training on how this is supposed to be done, teachers with varying levels of technical expertise and just information of how you're supposed to get this done. People make mistakes all the time. They'll make something as a Create when they really should have marked it as a Respond. Well in the previous system, we had the freedom to say, "You know what, you marked this this [sic] way, but it would score much higher if you did it this way, so that's how I'm going to score it because that's in the best interest of you as the teacher." We can't do that anymore. We're limited to scoring exactly the way the teacher submitted it.

Districts implementing this or a similar evaluation system should be aware that amongst the participants there was a consensus regarding the inadequacy of the state-level training. There was also consensus amongst the seven participants in this study for the need of peer reviewers to have some professional freedom to exercise discernment and provide the benefit of the doubt for teachers engaged in this evaluation method. This ethic of giving teachers the benefit of the doubt translated into a trust and professionalism in the culture of their district fine arts department that was recognized and articulated by the participants. While it was clear on the local level this was afforded, the consensus was that once they state began administering the system, the professional benefit of the doubt that could be granted by the peer reviewer was no longer an element in the process. It is unknown what impact this may eventually have on the culture.

***Time, training, and technology.*** Three major considerations for campuses and/or districts seeking ePortfolio as a solution for evaluation and professional growth are time, training, and technology. A participant explained about time:

Many times the portfolio gets left to the last minute because I am so busy teaching and directing my students in their own work that I do not have time to (a) stop and document their progress and (b) to put together the evidence of said work.

Administrator understanding of the time it takes was expressed as important by Participant One. He also explained an important point; he explained that time is worth it to him, for the benefits that emerge as a result. He explained:

It's time is the double-edged sword here. Because it does take time. It takes time to plan these things. It takes time to edit the video that you've done, so that you get the clips you want. It takes time to write the narrative, it takes time to mess with the software every year, as everyone in the state is trying to upload. I personally find the time worth it. I get

frustrated in the process occasionally, I understand the teachers who say the time's not worth it though. I consider myself blessed in my school environment. My administration understands that I get scored on a portfolio basis. So he understands that I need my planning time.

The issue of time is an essential factor in the scaling up of ePortfolio in the K–12 setting. Insufficient time, as reported by the seven participants in this study, resulted in significant hours dedicated outside the workday to compiling the ePortfolio contents. One participant described spending the entire Easter weekend in ePortfolio preparation. Release time for well-developed training, planning and execution of ePortfolio should be a consideration for implementation of an ePortfolio system. It is important to note that shortchanging the process may not result in reflective practice. Reflection takes time, therefore building short cuts into the process in place of granting additional time, may not result in growth and may result in a compliance over a growth-oriented evaluation system, regardless of ePortfolio use. Conversely, Participant One reported being allowed additional planning time dedicated to ePortfolio development, and indicated that time was beneficial to his development as a teacher.

Giving teachers time to get the full value of ePortfolio development and the full effect of reflective practice that can result in growth is important to ensure the ePortfolio acts as a professional development tool beyond compliance. Participant Five explained:

Being a peer reviewer for the first time this year, I am now starting to see how this can be a great tool for professional development, but I feel the teachers need more support. I feel like if we were given more time to collaborate with other theatre teachers not only in our district but across the state, we could really start to learn from what others are doing and how to structure what we're doing in the classroom around student growth.

One participant explained regarding training: “Now that it has moved statewide, the teachers and peer reviewers are not as well versed in the process as we are and that led to some pretty serious inconsistencies in the scoring of work.” Regarding technology, a participant explained: “Unreliability of the platform selected to upload the work [is a challenge] - once we finally get the system working, it is changed to something that is full of bugs again.” The three challenges of time, training, and technology must be proactively planned for with careful consideration to ensure success of an implementation strategy for ePortfolio.

The technological platform selected is an important decision that is not without consequence for the end-user. At the time of this writing, Tennessee shifted to the third ePortfolio platform, Portfolium (Spears, 2018). Beginning with GLADiS in 2010, shifting to Educopia in 2017, and shifting to Portfolium in 2018 impacts teachers in time devoted to learning new technology as opposed to time dedicated to the craft of teaching (Spears, 2018). Participants in this study further explained that teachers lost any ePortfolio submissions prior to 2017 without notice when the state moved to Educopia as a platform, unless they saved evidence outside of the system. Loss of intellectual property can have impact on morale and should be considered in contracting with platform developers. Additionally, shifting technological platforms involves a time consuming learning curve not surrounding the craft of teaching, but surrounding technology applications, in an already time-consuming process (Spears, 2018).

***Feedback, reflection, and score anxiety.*** The lack of specific feedback on their ePortfolio submissions was unanimously reported as an issue amongst the participants as a preventative factor for reflective practice. The participants did however report increased reflective practice and investigation on their own processes when a score was not a four or a five. A lower score elicited a high level of critical analysis and personal reflection potentially because

the justification for the score was not given to them. Two participants described experiencing anxiety over receiving a score they considered low. Despite reported anxiety, focus on scores lower than participant's perceptions of what should have been earned sometimes resulted in a reported deeper analysis of their work with students, and a requirement to self-assess and refine submissions for future years. Participant Seven explained,

I know it's opened my eyes up a lot because the first year I did the portfolio and I did what I thought was right. I saw other people's portfolio. I said, "Okay, well yeah, I submitted one kind of like that. I scored them all threes, fours, fives." Then mine came back as a two. I never did find out why because there was nowhere to give any feedback or anything. I'm like, "I need to figure out what I did wrong." I did the same process. I changed a few things, but I changed the writing. That was the big thing for me was the writing and putting the numbers and the data and stuff like that in there.

The issue here for some participants was the reporting of deeply troubling emotions emerging from hard working professionals when their work was not recognized at the level they perceived it to be. Frustrating to participants was the inability to get feedback explaining why they received their ratings. The experience, therefore, was not always positive. Two participants reported a perception that the system sometimes had unfair elements. One participant explained some peer reviewers were inadequately trained or lacked the value of giving the benefit of the doubt to teachers which was described as being embedded in the culture of this district's peer reviewer training. Participant Two described her experience:

I had where I uploaded the wrong file and I got a one on a collection, which brought my whole portfolio down to a three, which just devastated me. Finally, this is the first year I can truly talk about it and not burst into tears. And that was years ago. That was in 2013.

It's taken, truly, four good years, five, to get to the point where I am past the whole, "I am not a number." But there was no feedback for that, and I had to make an appointment and go sit down with my supervisor at the time and say, "What in the world?"

Participant Seven explained:

The Peer Reviewers may or may not be ethical in grading portfolios--I have had this happen because the first year, my score was a 2, and there was no reason given as to why I got a 2. I did my portfolio a lot like the ones I had graded and they were comparable to the scores of 3,4, and 5 that they earned. There are teachers out there who are doing Peer Review not to help teachers, but to hinder them in some way--which is a disgrace to educators. We should all be there to help each other.

The two participants that experienced this phenomenon were honest about the challenge this posed to their morale. One participant explained that it was difficult to talk about an incident she experienced receiving a low score several years prior, because she still could not identify the cause of the low score. This was evidence that the lack of feedback, while it promoted a high level of reflection, also promoted negative speculation and, at times, diminished morale. These factors related to feedback, along with time, training, and technology, should be considered in design of similar systems in other districts, according to the data that emerged from this study.

***Teacher advocacy.*** Participants reported the Tennessee ePortfolio system as a tool for advocacy. This was in part related to the system serving as a solution for the issue of assigning a standardized test score to a teacher from an unrelated content area. Participants in this study consistently cited this system as a job saving system for highly effective fine arts teachers. One teacher participant credited the system with saving her own personal position on her campus. Another, Participant Three, an elementary music teacher, further explained:

I taught in a school where my growth score and achievement score were sometimes a level 1 because I had to take the reading and math test scores of my school. By having my portfolio scores replace the reading and math scores, I was able to go from being a teacher barely holding on to a high enough score to stay employed to having a high score that offered me opportunities for leadership and success.

The advocacy and increased credibility granted to fine arts teachers on their campuses as a result of an evaluation system tailored to their students' growth was evident in the data. The defined success by the system resulting from high scores reportedly not only saved jobs, but also resulted in recognition for some participants as teacher leaders in their campus and districts. A system tailored to specific growth in classrooms identifies highly effective teachers. It may provide a level of acceptance that elevates teacher's potential in the field of education.

**Implications for policy.** Race to the Top legislation in 2009 led to a blending of appraisal and evaluation. Smith and Kubaka (2017) identified the result of this phenomenon as higher stakes in evaluation/appraisal, tied to pay increases and promotions for teachers. The attachment of evaluations to pay and promotion in education creates challenges. The system devised in Tennessee provided an alternative to the practice of tying a test score from an unrelated content area to a teacher's evaluation. Teachers in this system were evaluated on their own student growth, rather than a test score from a content area they did not teach. This has important implications for policy. Because a viable system has been developed and in use for almost a decade, this is an alternative model for districts and states to explore that blends accountability and evaluation without injecting standardized test scores that are unrelated to one's content area.

Beyond pay bonuses, the use of this alternate ePortfolio evaluation in the district where this study took place has reportedly resulted in retention of high-quality fine arts teachers who would have otherwise been eliminated from low-performing schools. While there are challenges associated with this system including time, technology, and training, the implications for teacher retention and more accurate evaluation of teachers based on their own content area are important considerations for other districts and states. This is especially important for districts experiencing issues related to merit-based pay systems, teacher retention, and equitable practice. Participants in this study affirmed directly that jobs of high performing fine arts teachers had been saved due to this system. One participant was personally impacted; a high-quality teacher with a master's degree who achieved high levels of growth with her students was in a school that was being "Fresh Started." Her job was preserved due to her outstanding performance as evidenced and documented through data in her ePortfolio. Additionally, the consistency of having a high-quality teacher remain on campus in this situation undoubtedly served as comfort to children returning to a school full of new adult faces.

In terms of policy outside of pay, associated with teacher evaluation: The Widget Effect (2009) outlined that 99% of teachers are rated as satisfactory in their evaluations (Weisberg, Sexton, Mulhurn, & Keeling). Based on this report, concerns arose amongst policymakers surrounding teacher evaluation reform (Jackson & Remer, 2014; Kuyper, 2015). The ePortfolio system in Tennessee was aligned with the recommendations of that report; this system evaluated teachers based on their ability to promote growth in students. The report also recommended integrating evaluation systems as tools to determine what professional development teacher's need. This evaluation system serves as a vehicle for teachers to self-assess. The ePortfolio process allowed professional educators to independently determine what types of professional

development they needed based on their documentation and reflection on their practice in relation to the domains in the state standards. Participants in this study reported seeking professional development opportunities based on the need to promote student growth in their ePortfolio, especially within the required accountability to three of the four domains in the state standards.

Consistent with Papay's (2012) recommendation that teacher evaluation should promote professional development, Tennessee's system had a goal to promote continued teacher development as a vehicle to improve student learning. An interesting caveat: the overt focus on student growth, with evidence required, not of teacher behaviors and actions, rather of student growth, resulted in reported improvements in planning, scaffolding, and assessment according to the data derived from the seven participants in the three phases of this study.

An additional element in the literature that is practiced in the Tennessee model is the use of peer reviewers. Kraft and Gilmour (2016) advised the use of peer evaluators could allow for a higher level of trust between the evaluator and the teacher to promote professional growth. The extent of trust in the system resulting from the use of peer reviewers is unknown because that was unexplored in this study. However, it was evident in the data that peer review was contributing to the professional development of the seven participants, not due to feedback received on their own work, but due to the opportunity to get a glimpse into someone else's practice and reflect on their own in comparison.

**Implications for theory.** Premise reflection and transformative learning (Mezirow, 1991) and reflection-in-action and reflection-on-action (Schön 1983, 1987) were evidenced in the findings. Some participants credited ePortfolio development as a factor that motivated restructuring of lessons and units to a scaffolded, skill-based approach to learning. All participants

reported a resulting structure, focused on assessment, oriented in student growth. The cultural implications revealed by participants included three factors resulting from reflection in-and-on-action leading to premise reflection: 1) a constant focus on student growth over teacher behavior, 2) a culture of “the benefit of the doubt” given to teachers by peer reviewers, and 3) a shift from performance-oriented to process-oriented teaching. That shift, resulting from premise reflection, was reported in five of the seven participants. The shift that occurred for these participants was evidence of transformative learning as defined by the conceptual framework of this study, which resulted from ePortfolio participation.

While ePortfolio has been specifically identified in higher education as a High Impact Practice (HIP) for pedagogical practice in the University setting (Eynon & Gambino, 2017), in that setting ePortfolio is attached to coursework, and is overseen by professors. In the K–12 setting, ePortfolio as an evaluation tool is different because it serves as an accountability tool to provide documentation and ensure teachers are teaching the standards. Further, in some cases it also serves as a merit system to garner additional compensation. Nevertheless, beyond accountability, the by-product of ePortfolio engagement in this study emerged in the form of reflective practice. These findings were consistent with reflection in relation to ePortfolio as described in the literature. This suggested that ePortfolio in the K–12 setting as an evaluation tool can lead to reflection as defined in the conceptual framework in this study.

### **Recommendations for Further Research**

The results of this qualitative case study focused on three research questions related to teachers’ perceptions of professional growth and development resulting from an ePortfolio evaluation system in use for non-tested content areas in Tennessee. The study sample size was limited to seven participants in one school district, which is not a sufficient sample for broader

application. Future researchers can build on this study to explore areas beyond the research questions, or can expand the sample size in this study to include other districts, grade levels, and/or content areas.

Themes emerged in the data of this study that were not aligned with the research questions, but are still viable and valuable points worthy of further study. Rich and thick descriptions were given by participants on various topics, which resulted in the following six recommendations for future research.

1. A study of ePortfolio development's impact on the transition of undergraduate pre-service teachers into ePortfolio evaluation in the K–12 profession could aid both higher education and K–12 in carrying benefits from pre-service experience into the profession. EPortfolio has been identified as a High Impact Practice in the university setting (Eynon & Gambino, 2017), but has not earned the same level of distinction in the K–12 or teacher evaluation setting. Teacher preparation programs in the University setting apply ePortfolio as a pedagogical practice for pre-service teachers (Albert, 2006; Darling-Hammond, Newton, & Wei 2010; Shepherd & Hannafin, 2008; Wilhelm, et al., 2006). A qualitative study seeking to identify habits of mind and habits of practice that carry over from undergraduate experience into the profession could inform the use of ePortfolio for the training of pre-service teachers. While identified as a High Impact Practice in higher education, no studies could be located illustrating ePortfolio impact in the transition from higher education experiences with ePortfolio into K–12 teacher evaluation and practice.
2. A mixed-methods study evaluating standardized test scores applied to evaluations of

teachers in untested content areas (such as fine arts), and the impact scores have on merit pay. This suggestion stems directly from an interview with Participant Five. He shared an element of the ePortfolio evaluation that is not a part of the research questions in this study, but warrants investigation:

Participant Five: If we get a level five [score on the evaluation], you get a \$1500 increase in your salary.

Researcher: A one-time bonus? Or, a salary increase?

Participant Five: A salary increase. A permanent salary increase of \$1500. If you get a four, you get a permanent salary increase of \$1000. And, if you get a three, you get a permanent salary increase of \$750. Now, here's some of the thinking too about that, which is like the different between the three and the four, is \$250.

Researcher: Every single year, for the rest of your career?

Participant Five: Every single year. It goes up and up and up. Right. At least here, yes. So again, it's when I talked about earlier...about teachers getting defensive.

3. A phenomenological study of the transition from local to state control of the ePortfolio evaluation process, as perceived by veteran ePortfolio participants in Tennessee, could benefit other state education agencies seeking to scale up local initiatives to the state level. Every participant in this study provided insight into his or her perspectives regarding the shift from local to state control.
4. A quantitative study exploring the impact ePortfolio evaluation had on teaching in three of four state standard domains in Tennessee, and/or the impact resulting from changes implemented by the state of Tennessee on ePortfolio peer review processes. A study relating to the impact of ePortfolio on teaching within three of the four domains

could inform decisions about the structure of this type of evaluation. Each participant explored three of the four state standard domains as a direct result of accountability to ePortfolio evaluation. One participant shared that since she was retiring (and was therefore not required to complete an ePortfolio), she chose not to teach the create domain in the 2017-2018 academic year. Another participant shared that in the new state system, peer reviewers score individual collections, not entire ePortfolio submissions as they did in the local system (each submission contains four collections). Her observation was a new lack of accountability to teach in three of the four domains, because peer reviewers were not checking for that element in the state review system.

5. A phenomenological exploration of ePortfolio technology platform change on time spent learning new platforms, retention/access of submitted work for future reflection, and morale of teachers, could benefit in measuring some impacts of platform changes. The initial platform (GLADiS) was in place from the inception of this ePortfolio system until 2017. Each participant shared the impact shifting from GLADiS to Educopia in 2017 had on their practice. The state initiated a shift to a third platform for the 2018-2019 academic year.
6. An investigation of the role of the definition of reflection as it relates to ePortfolio practice could assist in the role professional development plays in ePortfolio evaluation. Examination of the definition and role of reflection might aid in how to structure ePortfolio training and development of ePortfolio systems. This study revealed a discrepancy in the definition of reflection. Exploring whether teachers' define reflection as validity testing, or as introspection, which examines feelings about

a lesson, and the impact of feeling vs. validity testing on transformational learning could extend the work of this study and aid in transferability.

## **Conclusion**

This qualitative case study of seven fine arts teachers' engagement in ePortfolio evaluation in one school district in Tennessee investigated three research questions relating to the types of reflection fine arts teachers experienced, how their craft of teaching was impacted, and how ePortfolios doubled as professional development. Rich and thick descriptions emerged of reflection-in-action and reflection-on-action (Schön, 1983, 1987) from each participant. In five participants, premise reflection occurred, resulting in transformative learning. Those five participants described a shift in perspective from instruction focused on product, to a process-oriented approach to instruction. Findings were triangulated through three phases of the study, which included a written eInterview, a video-conference interview, and a face-to-face ePortfolio review. Participants described an increased focus on assessment for learning, a dedicated intent to the domains within the state standards, and a focus on student growth. Student growth as the focus of instruction resulting from ePortfolio engagement emerged 60 times as the single most coded phrase in this study.

The reflection occurring from using ePortfolio as an evaluation tool in one Tennessee school district, as described by five of the seven participants in this study, resulted in a shift towards a focus on process. When this shift occurred, the time spent reflecting and adjusting practice resulted in growth and development for those participants as defined by Mezirow's (1991) Transformative learning theory.

The implementation of ePortfolio evaluation that resulted in the described growth required organizational change to occur in this district in Tennessee. This organizational change

allowing ePortfolio scores to replace standardized test scores in evaluations resulted in retention of highly effective fine arts educators. The participants credited retention was a result of the option to replace standardized test scores with an ePortfolio showing student growth within their own content area of fine arts. Participants credited the ePortfolio directly with saving jobs of highly skilled fine arts teachers.

Identifying and training peer reviewers, and creating a culture and scoring system focused on student growth over teacher behaviors were systemic changes to the system in this district that ensured ePortfolio evaluation could occur in place of test scores being assigned as a portion of untested content area teacher's evaluations. It should be noted that challenges were described by participants. Challenges cited were a lack of feedback, time, training, and challenges associated with technology. The culture of assuming the best intentions of teachers' submissions of ePortfolios within this district created a level of trust that allowed teachers to develop in the process; however, participants reported this might not have been a consistent value in peer reviewers across the state. Training peer reviewers to promote value of growth and development and attempting to eliminate a "gotcha" mentality would serve development of teachers.

Time, training, and technology are key factors, reported by participants in this study. These are factors leadership should consider when transferring this model into in their school district. Lacking still are structures within most organizations that embrace the complexity of ePortfolio initiatives (Eynon & Gambino, 2017). Making cultural and organizational shifts might result in worthwhile gains in professional development through long-term commitment to ePortfolio.

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## Appendix A: Initial eInterview

Dear Participant,

Thank you for agreeing to participate in this qualitative case study focused on fine arts teachers' perceptions of participation in the Tennessee Student Growth Measures ePortfolio evaluation system as related to professional growth. This eInterview will take approximately 45 minutes to complete. The questions are foundational to the study. Your answers will help determine the questions asked in the semi-structured, face-to-face interview scheduled to occur in two to three weeks. Please avoid generalizations in your answers. This study is seeking your experienced perspective based on your own experiences as a teacher of fine arts who is engaged in an ePortfolio evaluation system. Your identity will be confidential. This digital interview is being conducted through Qualtrics in order to keep your answers secure.

### Segment 1: Participant Information

Participant Number: \_\_\_\_\_

1. What year did you start participation in an ePortfolio teacher evaluation system?
2. What content area do you teach?
  - Music
  - Theatre Arts
  - Visual Arts
3. Grade level(s) you teach?
4. Are you certified in any other content areas?
  - Yes
  - No
5. If yes, in which content area(s) are you certified:

6. How long have you been teaching?

- 20+ years
- 15-20 years
- 10-15 years
- 5-10 years
- 0-5 years

7. How long have you been in your current position, on your current campus?

- 20+ years
- 15-20 years
- 10-15 years
- 5-10 years
- 0-5 years

8. What is your highest level of education?

- Bachelor's Degree
- Some Master's courses
- Master's Degree
- Some Doctoral courses
- Doctoral Degree

9. Are you a peer reviewer?

- Yes
- No

10. If yes, how long have you been a peer reviewer?

- 4 or more years

- 3 years
- 2 years
- 1 year

## **Segment 2: Perceptions**

1. What are the major advantages to the TN Student Growth Model teacher evaluation system from your perspective? Please list your top three advantages and an explanation.
2. What are the major challenges of participating in the TN Student Growth Model teacher evaluation system from your perspective? Please list your top three challenges and an explanation.
3. What goals did you set for yourself for this years' appraisal?
4. Explain what professional growth means to you. Please give an example.
5. What are the top three ways that engaging in the TN Student Growth portfolio evaluation process impacts your professional practice from your perspective?
6. Explain what reflection means to you. Please give an example of the role reflection plays in your professional practice.
7. How has ePortfolio evaluation contributed to your professional growth? Please cite a specific example.
8. How has your teaching developed in the years you have been engaging in the TN Student Growth Portfolio evaluation system? Which elements of that growth do you attribute to the process of developing your portfolio and why?

## **Appendix B: Semi-Structured Video Interview**

- 1) Describe a time when collecting evidence of student growth impacted your perception about a student's learning.
- 2) In your written interview you described \_\_\_\_\_ as a way you have grown resulting from your engagement in ePortfolio development. Can you elaborate on that?
- 3) Has ePortfolio development motivated you to develop as a teacher? Can you describe an example?
- 4) You described reflection in your written interview. Can you elaborate on reflection and the role it plays in your practice as an educator?
- 5) How do you see ePortfolio development impacting the role of reflection in your practice? Can you give an example of ways that reflection has occurred in your teaching? What role did portfolio development play in that reflection?
- 6) You described \_\_\_\_\_ as a challenge in ePortfolio evaluation. Can you elaborate on that? How do you overcome that challenge?
- 7) What criteria do you look for in student work when considering it for evidence collection?
- 8) Do your student's know their work plays a part in your evaluation? If so, what is your perception of their reactions to their work being included in your portfolio? If the students are not aware their work is included in your portfolio, why?
- 9) Do you use portfolio evaluation with your own students? Why or why not?
- 10) Have you ever been evaluated on a non-portfolio based teacher appraisal system? If so, what differences do you perceive between the two systems?

11) Peer reviewer: How has being a peer reviewer impacted your own professional practice?

Describe something you learned about your own teaching through being a peer reviewer.

Non-Peer Reviewer: what is the role the peer reviewer plays in your professional growth?

Describe something you have learned through engagement with a peer reviewer.

12) Additional questions will be developed, and these questions may be changed, based on the responses in the initial eInterview.

### **Appendix C: Face-to-face review of ePortfolio guided by participant**

Please review your portfolio using the rubric your peer reviewer would use.

- 1) Please review and explain three examples of student growth you have submitted in your portfolio.
- 2) Please review the reflection piece in your past three portfolios. How has the role of reflection evolved in your submissions over the past three years?
- 3) What evidence can you show of professional growth through the past three years of ePortfolio submissions you have made?
- 4) What have your goals been for the past three years? Explain the progression of your goals and the process you engaged in to set those goals.
- 5) What examples of the role of reflection are evident in the progression of three years of portfolio submissions?

## Appendix D: Invitation to Participate

Dear [insert name],

Based on your years of experience with the TN Student Growth Model ePortfolio evaluation system, you have been selected as a potential participant in a study I am conducting about fine arts teachers' perceptions as related to professional growth. The exploration of fine arts teachers' perspectives about ePortfolio evaluation is an identified gap that exists in educational research. Because of your experience, you hold valuable perspectives about ePortfolio evaluation of fine arts teachers others around the nation do not have. I hope you will consider participating!

This study will result in a published dissertation through Concordia University-Portland. Your identity, and the identity of the study site, will remain private.

Please review the timeline below before agreeing to participate in the study. I understand how valuable your time is, and I will honor the timeline to the best of my ability. Participation is voluntary; you may leave the study at any time, for any reason. Your participation in each of the following components will help me render an accurate picture of your perceptions. We will begin with an introductory 10 minute phone or Video conference call to review the study and the informed consent form.

**Phase one.** Respond to an eInterview exploring your perceptions of ePortfolio evaluations of fine arts teachers (approximately 45 minutes) during the first ten days of the study

**Phase two.** Participate in a Video conference interview during the third week of the study. The interview will be recorded for transcription purposes and to ensure accuracy

**Phase three.** Allow for a face-to-face review of three consecutive years of ePortfolio evaluation documents, in which you will guide me through your portfolio submissions.

**Periodic checking.** I hope you will provide feedback/approvals/changes after each phase listed above in order to ensure your perceptions are accurately rendered. Each checking session should be completed within three days, with additional time granted if needed.

If you are interested in participating in this study, please e-mail me at [ePortfolioResearcher@gmail.com](mailto:ePortfolioResearcher@gmail.com) and include the following information:

1. A potential time that you are available for one 10 minute meeting via phone or Video conference during the first week of the study
2. The best number to reach you, or your Skype handle

Thank you for your consideration!

Kind regards,

Jackie deMontmollin

Doctoral Candidate

Concordia University-Portland

## **Appendix E: Consent Form**

Research Study Title: A CASE STUDY OF FINE ARTS TEACHERS' PERCEPTIONS OF  
EPORTFOLIO EVALUATION AS PROFESSIONAL DEVELOPMENT

Principal Investigator: Jacquelynn S. deMontmollin

Research Institution: Concordia University-Portland

Faculty Advisor: Christopher Jenkins, Ph.D.

### **Purpose and what you will be doing:**

The purpose of this case study is to discover fine arts teachers' perceptions of participation in the Tennessee Student Growth Model ePortfolio teacher evaluation system as related to their professional growth. The expectation is ten teachers will volunteer to participate. No one will be paid to be in the study. Enrollment will begin in March 2018 and end June 2018.

### **Study volunteers will participate in:**

An introductory 10-minute phone call to review the study and this informed consent form and:

*Phase One:* Respond to an eInterview exploring your perceptions of ePortfolio evaluations of fine arts teachers (approximately 45 minutes) during the first ten-days of the study

*Phase Two:* Participate in a Skype interview during the third or fourth week of the study.

The interview will be recorded for transcription purposes and to ensure accuracy

*Phase Three:* Face-to-face meeting to review of three consecutive years of ePortfolio evaluation documents in the fifth or sixth week of the study (approximately 45 minutes).

Additionally you will be given opportunity for periodic checking of the researcher's renderings of your perspectives to provide feedback/approvals/changes. This will occur after each phase listed above. Each checking session should be completed within three days, with additional time granted if needed.

**Risks:**

There are no risks to participating in this study other than providing your information. However, we will protect your information. Any personal information you provide will be coded so it cannot be linked to you. Any name or identifying information you give will be kept securely in a password-protected computer that is the property of the researcher. We will not identify you in any publication or report. Your information will be kept private at all times and then all study documents will be destroyed 1 year after this study is concluded.

**Benefits:**

Information you provide will help to fill an identified gap in educational research regarding the role ePortfolio teacher evaluation plays in the growth and development of fine arts educators. You could benefit this by reflecting on the ways the ePortfolio has informed your practice, suggesting ways that ePortfolio could be improved in future settings, and providing valuable perspective as an educator who has been a part of an ePortfolio evaluation system. Participants that complete all three phases of the study will be given a \$50 gift card as a thank you for time dedicated to the process.

**Confidentiality:**

This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is, if a professional, reputable transcription service is used (we will ensure they are a trusted, bonded service) or, if you tell us of abuse or neglect that makes us seriously concerned for your immediate health and safety.

**Right to Withdraw:**

Your participation is greatly appreciated, but we acknowledge that the questions we are asking are personal in nature. You are free at any point to choose not to engage with or stop the study.

You may skip any questions you do not wish to answer. This study is not required and there is no penalty for not participating. If you experience a negative emotion from answering the questions, we will stop asking you questions.

**Contact Information:**

You will receive a copy of this consent form. If you have questions you can contact the principal investigator, Jackie deMontmollin, at XXXX@gmail.com. If you want to talk with a participant advocate other than the investigator, you can write or call the director of our institutional review board, Dr. OraLee Branch (email obranch@cu-portland.edu or call 503-493-6390).



## **Appendix F: Statement of Original Work**

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously- researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

### **Statement of academic integrity.**

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

### **Explanations:**

#### ***What does “fraudulent” mean?***

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

#### ***What is “unauthorized” assistance?***

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another’s work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

## Appendix F: Statement of Original Work (cont.)

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University-Portland Academic Integrity Policy during the development and writing of this dissertation.
3. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*

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