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Electronic Portfolios: Best Practices To Help Increase Student Ownership And Engagement In The Third-Grade Classroom

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ELECTRONIC PORTFOLIOS:

BEST PRACTICES TO HELP INCREASE STUDENT OWNERSHIP AND ENGAGEMENT

IN THE THIRD-GRADE CLASSROOM

by

Bridget Farrell

A capstone submitted in partial fulfillment of the requirements for the degree of Master of Arts in Education.

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CHAPTER ONE

Introduction

Research Topic Defined

What are the best practices related to implementing electronic portfolios that will help increase my third-grade students' sense of ownership and engagement? This is the research question that has driven the creation of my capstone project. I was interested in knowing more about best practices when using electronic portfolios and how those best practices impact students' sense of ownership and engagement.

In this first chapter I will provide the background story as to how I narrowed in on and decided to explore my capstone topic. I will define the term *electronic portfolio*, and I will share why my topic is significant to my own learning and growth, my school community, and to the greater education profession. Finally, I will share how I plan to disseminate my learned information at the end of my capstone project.

My Background Story

My desire to answer the question, *what are the best practices related to implementing electronic portfolios that will help increase my third-grade students' sense of ownership and engagement?* began in the Fall of 2017 when I took on a new teaching role as the Spanish teacher at my elementary school. Prior to 2017, I was a third-grade teacher, a position I held at my school for five years. Having been a third-grade classroom teacher in my district, I developed a perspective which aided me in my new role as the Spanish teacher. I learned as a classroom teacher the importance of engaging

students in their work, which often begins with building positive relationships. With a classroom of under thirty students each year, I had ample time to get to know my students, what they liked and disliked, what motivated them, and in turn how to best engage them in their learning. After the first month or two of each school year I knew my third-graders well, which in turn helped me to better support them academically and behaviorally. When I entered the Spanish classroom as a specialist teacher, I did not have this same experience.

As the Spanish teacher, I had over 500 students with whom I was trying to get to know better and build positive relationships. I was teaching kindergarten through fifth-grade, and on average I saw classes once or twice a week for an hour each time. After the first month or two in this new role, I had seen a majority of my students about seven hours total. Seven hours is nearly equivalent to one full school day as a third-grade teacher. Needless to say, after spending only seven hours with my students over a two-month span, I had not built the positive relationships with my students as I had in years past as a third-grade teacher. I was unable to build rapport and support students to be successful academically and behaviorally in the same way. I also realized, though, that in teaching over five-hundred students it was going to be nearly impossible to build that many positive, meaning relationships within a year's time. As a result, I had a classroom often filled with unmotivated, disengaged students, who lacked a sense of ownership in their learning.

In order to move in the direction of solving this problem of lack of ownership and disengagement, I began to intentionally observe and reflect on the successful and unsuccessful class periods each day. I observed and noted when students were engaged

and motivated to complete their work and when they were not. A common theme arose. When students were working in their electronic portfolios, they were engaged and showed a sense of ownership in their work. I knew students were engaged because I had more students asking me questions. I had fewer behavior problems, and I had more students follow through and complete their work. When students left the Spanish room and came back the following week, they excitedly entered the room asking if we were going to work on our electronic portfolios again. I had not had these same student inquiries and excitement with other learning activities.

While I observed this change, I began to wonder why this was and what best practices with electronic portfolios would help lead to further and sustained engagement and sense of ownership. I wondered, was it simply the use of technology that engaged students? Was it the specific learning engagements I had planned within the electronic portfolio? Was it the opportunity for students to share their learning with their family and friends via the electronic portfolio? Were they motivated to tell their story to their electronic portfolio audience? I began to wonder about and investigate the change I was seeing, as I wanted to know more about what I could do to ensure students were motivated to stay engaged and take ownership in their learning as they worked in their electronic portfolios. To begin to understand my inquiries, I must first define electronic portfolios.

What are Electronic Portfolios?

In Chapter Two, I will share a more in-depth definition and description of electronic portfolios, but for my purposes here in chapter one, I will provide a brief explanation. An electronic portfolio is a digital repository to collect and display

documentation of students' learning, assessment, and best work (Barrett, 2007). This digital repository can and is used for a variety of purposes and in a variety of ways; which means, electronic portfolios can look and function very differently. They are becoming a common practice in the K-12 classrooms.

Significance to My Own Learning and Growth

About four years ago, my school adopted and implemented electronic portfolios. Prior to electronic portfolios we used traditional, paper portfolios to collect and showcase student work. With our paper portfolios, it was agreed upon that all teachers would have their students contribute the summative assessments from each of their six major units throughout the year. When we switched to electronic portfolios, however, our purpose and focus shifted.

In an effort to have our electronic portfolios function and look similarly, as well as to be more student driven, we created a new school-wide portfolio agreement. The new agreement stated that portfolios would provide students with an opportunity to collect examples of, reflect upon, and communicate their learning and growth. Throughout the year each student was now required to contribute a cover page, six artifacts with accompanied reflections, and two additional comprehensive reflections on our school's guiding philosophy. Some artifacts could be teacher selected and some could be student selected.

While I have worked with electronic portfolios now for several years, functioning within the parameters mentioned above, there was still much more from me to learn and improve upon. I have found that at the end of each major unit throughout the year, I set aside an hour or so for students to quickly select an artifact, write a brief reflection, and

upload it to their portfolios. It has always been a short, rather rushed process at the end of a unit, and I've known that this needs to be improved. It needs to be a more meaningful and effective process for my students. In my classroom, the potential of our electronic portfolios has not been fulfilled, and I'd like to change that. I aim to learn more, better my practice, and improve my students' experience with electronic portfolios.

Significance to My School Community

As mentioned above, it was about four years ago that my elementary school transitioned from paper portfolios to electronic portfolios. As a part of the transition we created an easily accessible portfolio agreement, and we have gone through some training to learn about the features of the portfolio, how to manage it; and, we have created the portfolios to be more student-centered.

While we have basic, agreed upon expectations for electronic portfolios, there is much more that teachers are able do within the electronic portfolio platform. Teachers have the freedom and ability to include additional artifacts and assessments. They can mass assign artifacts to portfolios, upload videos, photos and presentations; all of which can be instantly viewed by students' families on their own electronic devices. There are many incredible capabilities available to us with electronic portfolios.

It is these many capabilities that bring the need for focus and intention with each electronic portfolio. While I believe it is beneficial for teachers to have flexibility in guiding and managing their students' electronic portfolios, there are many features available to teachers that may not align with our purposes or goals. The purposes and goals of portfolios should guide the content going into them (Barrett, 2007), and as a school, we need to learn and evaluate whether or not our content continues to be in line

with our schools' purposes and goals. Our current program is set up to serve many different types of portfolios; and therefore, the teachers at my school would benefit from the research and its application within this project, to ensure they are on track for successful electronic portfolio implementation.

Significance to the Education Profession

"E-portfolios are becoming increasingly popular, and they have created a paradigm shift in education recently. E-portfolios are becoming the perfect way to collect, share, collaborate, and grade assignments in most classrooms" (Lynch, 2017). The increase in popularity of electronic portfolios is evident not only in my school district, but in neighboring districts, states, and even in other countries. Through my informal interactions with other teachers, in online forums, and through social media, I too have noticed that electronic portfolios are becoming much more prevalent. Schools and districts seem to be jumping on board to implement electronic portfolios rather quickly.

It is this shift in education that necessitates the demand for more research on electronic portfolios and their impact on learning. There is minimal research available to K-12 educators, and even less for elementary teachers. I therefore aim to research and create a professional development session that will benefit elementary teachers and their use of best electronic portfolio practices to increase their students' sense of ownership and engagement.

Chapter Summary

As I research the question, w*hat are the best practices related to implementing electronic portfolios that will help increase my third-grade students' sense of ownership*

and engagement? I hope to not only increase my awareness and effectiveness as an educator, but I also hope to influence others. Specifically, the purpose of this study is to explore the best practices related to the implementation of electronic portfolios with my third-grade students, as I aim to understand how implemented best practices can help increase my third-grade students' sense of ownership and engagement. I seek to understand the effectiveness of electronic portfolios in order to help other educators build a strong sense of ownership and engagement among their students.

In this chapter I shared what led me to my research question and defined electronic portfolios. Additionally, I shared to whom this research is important and relevant, and finally how I intend to share this information. Remaining in this paper are Chapters Two, Three and Four. Chapter Two, which I will present next, will share the research on the concepts of electronic portfolios, best practices with electronic portfolios, student ownership, and student engagement. In Chapter Three I will present an overview of my project, which will come in the format of a professional development session related to electronic portfolios. And finally, in Chapter Four, I will present a project conclusion and reflection.

CHAPTER TWO

Literature Review

Introduction

In this capstone, I am studying third grade students' use of electronic portfolios. More specifically, the purpose of this study is to explore the best practices related to the implementation of electronic portfolios with my third-grade students, as I aim to understand how implemented best practices can help increase my third-grade students' sense of ownership and engagement. I seek to understand the effectiveness of electronic portfolios in order to help other educators build a strong sense of ownership and engagement among their students. I will share my gathered research and learning with other educators through the development and delivery of a professional development session.

As stated above, this project is expected to benefit not only my own teaching practice, but also that of other teachers and the greater education profession. I aim to gather a body of research that will help educators implement best practices to help increase their students' sense of ownership and engagement. Specifically, I would like to answer the following question: *what are the best practices related to implementing electronic portfolios that will help increase my third-grade students' sense of ownership and engagement?*

This study will be completed using a mixed-methods design as the sources consulted and reviewed below provide both quantitative and qualitative data and results (Creswell & Creswell, 2018). I will rely on this data when compiling the forthcoming sections of this chapter. My review of electronic portfolios, best practices, and how they can increase student ownership and engagement will be shared next. I will present the information in five sections in this literature review, as outlined below.

The first section of this chapter will dive deeper into defining what electronic portfolios are, followed by how they are similar and different from the more traditional, paper portfolios. From there, I will present more specifically the different types of electronic portfolios, according to various experts. There are differing opinions as to the types of portfolios, and in this section I will present these differing opinions.

After I have shared the different types of electronic portfolios, the second section will present why certain types of portfolios should be used. Different types of portfolios elicit different types of student involvement and artifact collection. This section will highlight these differences.

In the third section, I will share my findings as to how electronic portfolios should be used. Specifically, I will share the best practices when implementing electronic portfolios. When looking at best practices, my research will narrow in on four main areas; school-wide practice, teacher practice, student practice, and family practice. I will first include what a school needs to have in place to have successful electronic portfolio implementation. Second, I will present the strategies and skills necessary for teachers. Third, I will share best student practices that need to be in place for successful student portfolio implementation. And finally, I will share best practices for family involvement.

There are many stakeholders when implementing electronic portfolios, so it is imperative that all stakeholders have best practices to adhere to.

In the fourth section, I will share research on the importance of student ownership and how electronic portfolios can help increase students' sense of ownership. Students having a strong voice in their work, specifically in the creation of their e-portfolios, is vital.

In the fifth, and final, section of this literature review, student engagement will be summarized and presented. I will present two case studies involving e-portfolios and student engagement. In this section, I will argue that when students are involved in best practices with their electronic portfolios and have a sense of ownership in their work, their level of engagement can increase further.

What are Electronic Portfolios?

As stated earlier in chapter one, portfolios are not a new concept in education. Portfolios are familiar tools that have been used both inside and outside of education for years (Barrett, 2007; Hebert, 2001). Electronic portfolios, on the other hand, are a relatively new concept in education. They provide students with the ability to showcase their learning in ways that more traditional, paper portfolios may not. Because of the digital platform, electronic portfolios allow students to share not only their written work, but also video, audio, images, and potentially more depending on the capabilities and tools available within the electronic portfolio platform.

Two common terms used for electronic portfolios are e-portfolio and digital portfolio, and these terms are often used interchangeably. To streamline terms used in

this paper, moving forward I will use the term e-portfolio when referring to electronic or digital portfolios.

There are many definitions of e-portfolios, ranging from more detailed to vague. In 2004, Cambridge in EDUCAUSE defined an e-portfolio as:

> a collection of authentic and diverse evidence, drawn from a larger archive representing what a person or organization has learned over time, on which the person or organization has reflected, and that is designed for presentation to one or more audiences for a particular rhetorical purpose (as cited by Barrett, 2007, p. 438).

Baris & Tosun (2013), on the other hand, have a more simplified definition; an archive where finished work can be stored. For the purpose of this study, the following definition from Brad Pousley at the Teaching and Learning Lab at Harvard Graduate School of Education is most relevant. Pousley (2016) defines an e-portfolio as a repository to collect, organize, and share student artifacts. The e-portfolio facilitates self-reflection, assessment, mixed media, peer interaction, and academic development.

From traditional portfolios to e-portfolios. There continues to be a shift away from traditional portfolios toward e-portfolios. According to Madden in 2007 (as cited by Nicolaidou, 2013, p. 405), e-portfolios began to emerge in the early 1990s due to the rise of digital media. Currently, with the availability of e-portfolios, including free e-portfolio sources, more schools are implementing e-portfolios into their programs.

In reviewing the relevant research, it is evident that there are many strategies and practices that are effective for both traditional portfolios and e-portfolios. It should be acknowledged, though, that e-portfolios have unique advantages over traditional, paper-

based portfolios. Abrami and Barrett (2005) argue there are three main advantages. First, e-portfolios allow students to incorporate multimedia materials, which in turn allows them to use a variety of tools to create and demonstrate their learning. Second, e-portfolios make it easier for students to catalogue and organize their learning artifacts to better show their development over time. Third, Abrami and Barrett argue that e-portfolios have communication advantages, in that e-portfolios can easily be shared with peers, teachers, and families, all of whom can also provide feedback to the student, all within the same e-portfolio platform.

In addition to Abrami and Barrett's arguments as to the advantages of e-portfolios, Zubizarreta (2009) also argues additional advantages. Zubizarreta argues that e-portfolios are more accessible than traditional paper portfolios, are better instruments of feedback, and are more motivating for active student learning.

Types of E-Portfolios

There are many types of portfolios and e-portfolios that are commonly used in K-12 education. In the above sections I presented the advantages of using e-portfolios, though in this section, when discussing the different types of portfolios, there will be no distinction made between traditional, paper-portfolios or e-portfolios. The types of portfolios presented below could take the form of either paper or digital. I will be using the term *e-portfolio* as it is relevant to my purposes here, but the same research below is also at times relevant to traditional, paper-based portfolios.

There is disagreement among experts as to the varying types of e-portfolios. According to Barrett (2007) there are two main types of portfolios; a learning or process portfolio and an assessment portfolio. The learning, or process portfolio, is more student

driven, and is often referred to as a constructivist approach, as it shows students' sense of growth and change over time in their learning.

An assessment portfolio is driven less by the student, and more by performance on assessments. This is often referred to as a positivist approach. It shows a students' mastery of outside standards, rather than what the student feels demonstrates their growth and learning.

Though Barrett presents two main types of portfolios, learning and assessment, she also acknowledges that at times portfolios can be a combination of the two. These types of portfolios can be referred to as mixed purpose portfolios. Barrett presented these two main types of portfolios in 2007, but two years earlier, Barrett in collaboration with Abrami, (2005) argued that there were not two main types but rather three: a process portfolio, a showcase portfolio, and an assessment portfolio.

A process portfolio, according to Arter & Spandel (1992) and MacIsaac & Jackson (1994), as cited in Abrami & Barrett (2005), is an intentional collection of work that tells a student's educational story. Students collect, reflect, evaluate their own growth, and celebrate their accomplishments.

A showcase portfolio (Abrami & Barrett, 2005) is a compilation of student work that shows a students' highest competencies and academic achievements. Such portfolios show what has been learned, but they don't necessarily describe what has been learned.

An assessment portfolio (Abrami & Barrett, 2005) is a portfolio that is used to evaluate learning and can include both formative and summative assessments. This type of portfolio may include rubrics and evaluation criteria along with the assessments.

As seen above, there are conflicting perspectives as to the varying types of e-portfolios; though there is some overlap. For the purpose of this project, I will move forward with the following three types of e-portfolios: learning portfolios, assessment portfolios, and mixed purpose portfolios.

I have chosen to proceed in this direction for three reasons. First, both Abrami and Barrett included a student driven, learning portfolio. Second, when looking at the definitions of showcase and assessment portfolios, both reflect outside standards and mastery. They are similarly designed, and therefore, could be considered similar products. Finally, the group of mixed-purpose portfolios, the third type of e-portfolio, is included because it stands out as different from the previously mentioned portfolios. In the next subsection I will present information as to why one would choose and implement either a learning portfolio, assessment portfolio, or mixed-purpose portfolio.

Learning e-portfolios. The first type of e-portfolio can be referred to as a learning or process portfolio, thus a more constructivist approach may be taken in its creation (Barrett, 2007; Abrami & Barrett, 2005). The purpose of this type of portfolio, reflecting the student perspective, is to document and share students' growth in their learning. As mentioned previously, these portfolios are more student-driven. Students select artifacts that they feel represent their best learning or growth and change over time. These artifacts are added to the e-portfolio to help show a complete picture of their own learning. As Principal Elizabeth A. Hebert and her sixth-grade student Laurie Schultz (1996) said, the portfolio can help tell the story of the student creator. It can tell the story of how a student has changed over the course of a year or over many years.

The most significant effect of a learning portfolio is the power and autonomy students have to create, organize, and share the learning that is most meaningful to them. Learning portfolios are personal learning management tools (Abrami & Barrett, 2005), and the focus of the portfolio is on the process not the product (Nicolaidou, 2013). As I reflect on the data, it becomes clear that students' involvement in the creation and management of their learning portfolio is critical. When portfolios are student-driven, and students have been given the tools to be successful in their creation, e-portfolios can be effective learning tools.

Assessment e-portfolios. A student-driven, learning portfolio is one type of e-portfolio, but an assessment portfolio is an additional common e-portfolio. The assessment portfolio is used to document assessed learning. It is standards-driven and can be used to compile artifacts that demonstrate students' mastery or attainment of standards or assessments (Barrett, 2007). Both are valid portfolios (Hebert, 2001); yet they serve different purposes. In an educational system where tracking the accountability of teachers, standards taught, and content mastered is often a priority, a standards-based, assessment e-portfolio can be an effective tool for students, teachers, schools, and other outside stakeholders. Evidence of mastery of mandated standards can easily be organized, displayed and accounted for. Assessment portfolios can be an effective way for both the teacher and the student to showcase the goals reached within a year or over a span of many years.

Mixed purpose e-portfolios. While there are two main types of portfolios, learning and assessment portfolios, at times these purposes are combined. Portfolios can contain both student-selected work and artifacts that demonstrate achievement or mastery

of a standard. It has been argued that combining these two purposes can be seen as creating a conflict, since the two portfolio types have distinct, separate aims (Barrett, 2007), but at the same time there are many programs and e-portfolio tools available for teachers to combine both purposes into one e-portfolio (Heide, Karlin, Miles, & Ozogul, 2016). It is up to the school or teacher to decide which type of portfolio will best fit the needs of their students and the goals of the school.

Best Practices with E-Portfolios

Regardless of the type of e-portfolio that is selected, there are best practices that should be implemented. In this section, based on the research I have reviewed, I will present how e-portfolios should be used. I will suggest best practices that can be adapted for effective creation and use of e-portfolios. These best practices will include practices for all stakeholders, namely: schools, teachers, students, and students' families.

Best practices for schools. I will begin by presenting best practices that should be implemented school-wide. Prior to a school or school district's decision to implement the use of e-portfolios, there are important steps and considerations to take. First, prior to implementation, schools should conduct a systematic study of their needs in regard to e-portfolios (Barrett, 2007). A systematic study will allow a school to learn what will work within their school and why. This will help guide them in deciding the type and purpose of their e-portfolios; learning e-portfolios, assessment e-portfolios, or a combination of the two. The conclusion will then guide a school to take the necessary steps of defining their needs to move forward (Lynch, 2017).

Once a systematic study has been conducted, teachers need to be trained in e-portfolio implementation. Students are not the only ones who may have difficulty in the

process of learning about and developing e-portfolios (Gray, Hartnell-Young, Joyes, 2010). There is often a learning curve for teachers as well. Therefore, there needs to be established, ongoing training and professional development for teachers who are implementing e-portfolios (Barrett, 2007; Brown, Ferguson, Grant, Jones, Sweeney, & Tamim, 2015; Strudler & Wetzel, 2005). As stated by the U.S. Department of Education, Office of Educational Technology (2017, p. 8) "providing internet access and devices for learners should not overshadow the importance of preparing teachers to teach effectively with technology." Teachers need to be well equipped to lead their students. It is a well-supported, school-wide infrastructure that will make e-portfolios an effective tool to be used within a student body.

Finally, it is best practice for schools to set up an intentional design or structure to their e-portfolios, one that will support the intended purposes of the school (Gray et al., 2010). As presented earlier, the various types of e-portfolios serve different purposes and yield different results. After the school-wide purpose has been concluded, and the type of e-portfolio has been decided upon, a uniform structure of the e-portfolio should be carefully created. If there is a common structure, students will be better able to understand, navigate and organize their learning artifacts. In many contexts, e-portfolios are used to document growth and learning over a period of many years. When the structure of their e-portfolio remains consistent and well laid out, students can focus on the process of adding and reflecting upon artifacts, rather than on the function or organization of the e-portfolio. If these best school practices are followed, successful e-portfolio implementation is likely to occur.

Best practices for teachers. In addition to best practices for schools, there are best practices for teachers. Next, I will present the best teacher practices that need to be in place for successful e-portfolio implementation.

First and foremost, teachers must model. Teachers must provide models as to what e-portfolios can and should look like (Baris & Tosun, 2013). A finished model will guide the students in knowing what their end product could and should look like. Teachers should also model the process of creating a portfolio (Baris & Tosun, 2013). This will include highlighting both technical elements and artifact expectations. Teachers will need to demonstrate how to use specific tools within the e-portfolio and how to use certain features on the computer or other electronic device. Students will come with varying technological abilities, so modeling will be vital for all students to successfully participate in creating their e-portfolios.

In addition to modeling what an e-portfolio will look like and what process will be used in its creation, a teacher must also understand and model how to reflect on one's work. Reflection and metacognition are an imperative component to any portfolio, (Barrett, 2007; Zubizarreta, 2009). Reflection gives meaning to the artifact the student has selected, as it helps them tell the story of their learning and how that particular artifact contributes to their story. Metacognition, according to Tanner (as cited by Haave, 2016, p. 8) allows one to think about their own thinking, and to plan, monitor and evaluate their own learning process.

In addition to modeling reflection, it is also best practice for teachers to provide feedback and to teach other students how to provide feedback to each other (Heide et al., 2016). This modeling of feedback for students will in turn teach and encourage parents

and family member to provide effective feedback as well. Many of the e-portfolio

programs currently allow others to subscribe and follow student e-portfolios, giving way

to a larger and more immediate audience than the traditional paper portfolio. Subscribers,

such as parents, family members, teachers, or other classmates can view portfolios as

they are created and further developed. Subscribers can, in turn, provide feedback to the

student using built-in, program tools. One particular e-portfolio case study, which I will

go into greater detail later in this chapter, was conducted by Heide et al. (2016). The

study found that students were highly motivated to give and receive peer feedback.

Specifically, the study found that students were more reflective and were better self-

assessors when they had received written, digital feedback from their peers and teacher.

The positive effects of providing feedback were found not only in the case study

mentioned above, but also in research conducted by Barrett (2007). Barret found that

teachers who provided quality feedback to their students, in turn saw positive results with

their students and their e-portfolio use.

While providing feedback and taking time to model expectations are effective

practices for teachers, so is taking the time to consider students' level of technology

literacy (Baris & Tosun, 2013). A students' technology, or digital literacy is defined as

their level and ability to understand, evaluate, and integrate computerized information

and practices (Gilster, 1997). Students' levels within a group are bound to differ, much

like other abilities within a classroom. Teachers need to have a sense of their students'

ability, so that they can plan and support successful e-portfolio implementation.

Best practices for students. When working in e-portfolios students must have the

opportunity to collaborate. Creating an e-portfolio on a mobile computing device such as

a tablet or laptop computer allows for easy collaboration, as it allows for students to share their learning and discuss content (Brown et al., 2015). Additionally, the Office of Educational Technology (2017) suggests that using technology can expand relationships among learners, teachers, peers, and mentors. It should be noted, though, that not all e-portfolios are equally set up for students to collaborate (Heide et al., 2016). It is, therefore, valuable to determine which e-portfolio tool or program would best fit a school or classroom's collaboration needs based off of the aforementioned systematic study they have completed.

It is also best practice to allow students to participate in the creation of the look and feel of their e-portfolios. An example of this would be allowing students the chance to design the homepage of their e-portfolio. When students are able to design their personal homepage, they have a greater sense of ownership in their work (Heide et al., 2016). While, from an educator's point of view, it could seem that giving students time to adjust the aesthetics of their e-portfolio would be a waste of valuable learning time, this practice only builds upon the whole representation of the student and his or her e-portfolio. It allows the student to better express themselves, their creativity, and their learning.

Giving students the time to design the look of their e-portfolio is one best practice that promotes "student voice" in their work. Student voice, as defined by Fletcher (2005), is the meaningful involvement of a student allowing them to share their own ideas, opinions, knowledge and experiences. An additional way we can hear student voice in e-portfolios is through student-led conferences, e-portfolio nights, and digital recordings of students explaining and reflecting on their e-portfolios. In preparation for

sharing e-portfolios, it is best practice for students to spend weeks talking with peers, their teacher, and possibly older students (Hebert, 2001). They can go through their e-portfolios looking for evidence of growth, connections among artifacts, and can reflect on their work as a whole. Additionally, when it comes time to share their e-portfolios, students can prepare an "Ask Me About" sheet that their audience may follow, which will lead the students to share what they felt was most important in their portfolio (Hebert, 2001). This student-driven practice allows for students to share and highlight their incredible learning; as portfolios should be shared, celebrated, and should engage the portfolio creator (Herbert, E. A. & Schultz, L., 1996). When all of the previously mentioned student best practices are in place, there is greater success in e-portfolio implementation.

Best practices for student families. For successful e-portfolio implementation, it is also beneficial to have students' families involved. According the Office of Educational Technology (2017) it is imperative that families are engaged and actively involved in new technology implementation.

It is best practice that families are present for e-portfolio presentations to listen to their child share their learning. The digital platform of an e-portfolio allows students to record and present their reflections within their e-portfolio. Additionally, students need to share their e-portfolios in person. The important act of listening gives family members a more in-depth view of their child as a learner (Hebert, 2001). In person, students can share more broadly about their e-portfolio, something that might not be easily recorded and understood without the guidance of the learner himself or herself.

Effects of Successful E-Portfolio Implementation

When best practices are followed in implementing e-portfolios, beneficial results may be achieved. Below I will describe two potential important results: an increase in student ownership and student engagement. Additionally, I will show how students' sense of ownership and engagement can be connected to each other.

Student ownership. "Portfolios can serve as a catalyst for increased student ownership of the learning process; however, this can only happen if the portfolio project is implemented in such a way as to encourage student engagement" (Barrett, 2007, p.442). Students having a sense of ownership or agency in their work is vital in the development of student e-portfolios. With the implementation of e-portfolios, students are excited and motivated to take responsibility in collecting and sharing their work (Herbert, 2001). Students are likely to have an increased sense of ownership when they are the ones driving their portfolios' creation and selection of artifacts. They are also likely to have an increase sense of ownership when they are the managers of their own learning.

As managers, students can add, modify, and reflect on their learning artifacts. Successful management comes when students are expected and able to explain what they put in their portfolio and why they put it there (Abrami and Barrett, 2005). They do so by providing evidence, or a rationale, as to why their chosen artifacts belong in their portfolio (Barrett, 2007). It is this rationale that can build a student's sense of ownership, as the student is the active agent in the process of creating, constructing knowledge and refining a personal understanding of their work (Chau & Cheng, 2010). This management role, including rationale and reflection, is a practice taught and modeled by the teacher, as

mentioned earlier in this chapter, and can effectively build a student's sense of ownership.

In addition to taking on the management role of the artifacts contributed to an e-portfolio, a student's sense of ownership is likely to increase when students have the ability to design the look of their e-portfolio. While having a structure to the e-portfolio is best practice, as mentioned in an earlier section of this chapter, it is beneficial that within the given structure students have the ability to modify the appearance of the portfolio. This is a powerful opportunity for students to personalize their e-portfolio. This small action allows students to not only showcase their knowledge, skills, and conceptual understandings within their e-portfolio, but also their talents, creativity, and individuality (Anderson, DePaepe, Lambert, C., & Lambert, L., 2007). When students are granted access to use tools that allow them to control the look and feel of their portfolio, they can have an increased sense of ownership (Heide et al., 2016).

To increase students' sense of ownership, we additionally want to ensure that the student voice is heard when we look at or are presented with a portfolio. While it could be possible for all types of portfolios to build a student's sense of ownership, or to hear a student's voice, learning e-portfolios are where the student voice will be most significant. Learning e-portfolios include this voice naturally through the inclusion of student reflection and rationale (Abrami & Barrett, 2005). Assessment e-portfolios, as mentioned earlier, reflect outside standards and achievement (Barrett, 2007) not necessarily what the student feels is his or her best achievement or growth in learning. Assessment e-portfolios, therefore, may have a lesser impact on a student's sense of ownership and will not maximize student voice.

In 2010 a case study was completed by the Joint Information Systems Committee (JISC) in the United Kingdom, and this study aimed at finding effective practices that could inform successful e-portfolio implementation. One of the contexts in which projects were organized was around exploring e-portfolios and their use in learning, teaching and assessment. The study analyzed 21, two-year long projects, all of which involved the use of e-portfolios. The study found that e-portfolio implementation is complex. There are many stakeholders, purposes of e-portfolios, and many contexts in which they can be used; which therefore means, implementation is not straightforward.

While implementation is not straightforward, there were still significant concepts learned from the study. One of these concepts was that the process of creating an e-portfolio, and its outcomes, need to be owned by the student (Gray et al., 2010). In other words, students need a sense of ownership in the creation of their e-portfolios. This is further corroborated through the research of Barrett (2007), which was referred to earlier in this paper, where she argues that students must own their portfolios; they need to be in charge of telling their learning story through their e-portfolio.

Student engagement. When students have a strong sense of ownership in their learning, they are more likely to be engaged in their learning. Tobias & Duffy (2009) stated, as cited in Abrami, Venkatesh, Meyer, & Wade (2013, p.1188), that "Contemporary trends in education research indicate that improvements in educational success will occur when students become more active, engaged participants in their learning, enhancing the extent to which learning is personally meaningful." I would further argue that when learning is personally meaningful, that is the moment when students develop an increased sense of ownership, and therefore, are likely to be more

engaged. Specific to this paper, when students have an increased sense of ownership in the creation of their e-portfolio, they are likely to be more engaged in their work.

One reason students are also more likely to be engaged in the creation of their e-portfolio is their audience. When e-portfolios are shared with peers and family members, it is an authentic learning experience and students are likely to be engaged. In having an authentic audience, students know that their learning and demonstration of their learning matters. Students are held accountable by others (Heide et al., 2016). To further stress the importance e-portfolios can have on student engagement, I will present two additional case studies.

case studies. In 2016 Heide et al. completed a case study on the implementation of e-portfolios in K-12 classrooms. They specifically looked at three different teachers' experiences in implementing and using three different e-portfolio programs in their classrooms. Data was gathered on each of the program's use, its specific features, and management implications. While this data varied as to the teachers' experiences, as their experiences were dependent upon the program they were using, there was one important, common understanding and conclusion. All three teachers found that integrating e-portfolios was engaging for students (Heide et al., 2016). Students were motivated and excited to work on their e-portfolios. In one particular classroom within the case study, the teacher observed that classroom management was much easier than expected. The students, over several years of e-portfolio implementation, grew to be familiar with the e-portfolio process and expectations, and therefore were able to demonstrate acceptable behavior. Additionally, in this study, one teacher documented that the first time students uploaded artifacts to their e-portfolio, it took around an hour for each student to finish

their posting and accompanied reflection. As the year went on, though, this time shortened. Eventually it only took students about fifteen to twenty minutes to finish their posting and accompanied reflection. Students were engaged and more efficient in the process of creating their e-portfolios.

An additional case study of nine teachers was completed by Brown, Ferguson, Grant, Jones, Sweeney, & Tamim (2015). The teachers ranged from third-grade through twelfth-grade teachers. This case study, while not specific in identifying e-portfolios, investigated using mobile computing devices such as tablets and laptop computers, the technology tools used in the creation of e-portfolios. The study found similar results to those of Heide et al., (2016), in that students were highly motivated, engaged, and excited when working on their devices. Students spent more time on task, which in turn allowed the teacher to be more mobile in moving around the room and assisting students.

While both aforementioned studies showed increased student engagement while implementing e-portfolios, I want to be careful to make a distinction between engagement and occupation. At times technology can be occupying but not necessarily engaging. The allure and dazzle of e-portfolios can easily turn into "busy work" for students rather than a process of learning (Zubizarreta, 2009). In my own professional experience, technology can absolutely at times dazzle and occupy a student, but not necessarily engage them. To truly engage a student in his or her learning, requires more than simply occupying him or her with an inviting interface or entertaining device. It is not simply enough to ask a student to create an e-portfolio, though that is likely to occupy his or her time. It is imperative that educators enlist best teacher and student practices, as

mentioned earlier in this chapter, to set students up to meaningfully engage, take ownership, and demonstrate their learning.

The Gap in Current Research

As the above discussion indicates, e-portfolios are becoming more popular in schools (Lynch, 2017), and for this reason we need to ensure that they are being used effectively to maximize student achievement and learning. Expert researcher Darren Cambridge (2012) said this of e-portfolios:

> They can help students develop abilities essential to long-term success: the strategies and confidence to learn independently; the understanding of one's own strengths and predilections to allow for more effective collaboration; and the reflective linking of values and aspirations with knowledge and action to enable charting career trajectories and fulfilling responsibilities as a citizen. (p.52)

It is these valuable life skills that ultimately all students deserve the ability to develop, and e-portfolios are a pathway to their development.

The research on e-portfolios in education, however, is still emerging. The focus tends to be on the development of teaching portfolios rather than on K-12 portfolios (Barrett, 2007). Research on e-portfolios used in the K-12 setting is minimal. While there are small case studies and articles analyzing the use and application of e-portfolios, as seen in this literature review, there is still much more to learn.

When looking at e-portfolios we find that there is even less research available related to the elementary level. There is a clear lack of resources for elementary teachers, and I aim at filling that gap. Based off of the research presented here, I have created a final product, a professional development workshop, that can support elementary teachers

and their classroom practice with e-portfolios. All of our students, even our youngest elementary aged learners, deserve a chance at developing the life-long skills associated with implementing e-portfolios.

Chapter Summary

In this chapter research was presented to help in answering the question: *what are the best practices related to implementing electronic portfolios that will help increase my third-grade students' sense of ownership and engagement?* The research presented defined electronic portfolios, presented the different types of portfolios, and continued on to highlight the best practices for schools, teachers, students, and student families. From there, research showed how implementing e-portfolios can help increase students' sense of ownership, which in turn, can increase student engagement.

The research presented in this chapter has contributed to the next steps in this paper. In the forthcoming chapter, Chapter Three, I will present an overview of the project I have developed, as a means to share my knowledge and research with other educators.

CHAPTER THREE

Project Overview

Introduction

The purpose of this study is to explore the best practices related to the implementation of electronic portfolios with my third-grade students, as I aim to understand how implemented best practices can help increase my third-grade students' sense of ownership and engagement. I seek to understand the effectiveness of electronic portfolios in order to help other educators build a strong sense of ownership and engagement among their students. Specifically, I am investigating the following question: *what are the best practices related to implementing electronic portfolios that will help increase my third-grade students' sense of ownership and engagement?*

E-portfolios, as mentioned earlier in this capstone, are becoming ever more popular in schools across the United States and globally. They are being used in elementary through high school (Heide et al., 2016) in advanced college courses (Zubizarreta, 2009) and in programs for preservice teachers (Anderson et al., 2007). Traditional portfolios have been used specifically in my elementary school for several years, and e-portfolios were implemented about four years ago. As a school, over the past four years, we have slowly learned how to utilize e-portfolios, yet we still have room for growth in our learning and improvement in our processes. It is this need for further

understanding and growth that has led to me to my research question and capstone project.

In Chapter Two of this capstone, I presented current research on e-portfolios. The research shows that education and growth with the use of e-portfolios is not only a need specific to my school, but rather a need present throughout the greater K-12 educational community (Barrett, 2007). I continued on to present research on the different purposes of e-portfolios, the best practices when using them, as well as how e-portfolios can help increase student ownership and engagement. E-portfolios are an effective way to display artifacts of content mastery, artifacts representing growth over time, or a combination of the two. The implementation of e-portfolios with best practices, can positively impact students' sense of ownership and engagement. It is the research summarized in Chapter Two that has led me to the development of my capstone project.

Here in Chapter Three, I will first provide a description of my project and the format it will take. Rationale for the content and format of the project will be examined next, followed by a description of the project. The project will take the form of an educator professional development workshop.

Project Description

In recognizing the need for more education around e-portfolios, both in my school and beyond, I concluded that for my capstone project it would be beneficial to create a professional development workshop aimed at adult learners. The goal of the workshop is to create an informational session that will allow for teachers who are thinking of implementing or have already implemented e-portfolios to learn the following: the

different purposes of e-portfolios, the best practices to use with e-portfolios, and how to implement these practices to help impact students' sense of ownership and engagement.

Rationale for Professional Development Framework

In the creation of my professional development session, in order to ensure validity and reliability, I will adhere to the research and two founding principles of Malcolm Knowles. Malcolm Knowles (1992) first states that adult learners must be actively involved in their learning. I will ensure that all participants are actively involved in my professional development workshop through a variety of ways. First of all, I plan to create a presentation that all participants will be able to follow along with on their own digital device. That platform will allow them to type questions as the presentation proceeds. Second, I will ask for participant input as to their experiences with e-portfolios. While I am presenting the adult learners in the session will contribute to the discussion with their valuable input to either corroborate or dispute the evidence presented. Third, I will ask participants to review and reflect on the e-portfolios they have already worked on with their current or past students. They will reflect upon what best practice they have already used, and what best practices they could include or implement further within their own practice. It is through active reflection, the sharing of experiences, and through participation within the digital presentation that the adult learners will be actively involved in their learning, achieving the goal of Knowles' first principle.

Knowles's second principle (1992) states that the learning must start with and build from the adult learners' backgrounds, needs, interests, problems, and concerns. Prior to the start of the professional development session, I will gather information from participants. I will learn their content area and level, which will in turn give me

information as to where they are in the e-portfolio process. In my district, all elementary teachers have started using e-portfolios, while most high school teachers have not. On the day of the actual professional development course, I will hear from participants what they hope to gain from our session together. By asking the adult learners what they hope to gain, I will develop a good sense of what they need, are interested in, what problems they are experiencing, and what concerns they hope will be addressed in regard to e-portfolio implementation. Through our session together, I will ensure that we attempt to meet all these needs and answer all questions. By following both of Knowles' guiding principles, I will ensure a valid and reliable professional development session.

In addition to making sure the professional development session is valid and reliable in its delivery, I will also ensure the validity and reliability of the content presented. The information included in the professional development session will be based off the research presented in Chapter Two, where both qualitative and quantitative data were examined and summarized. Additionally, I reviewed findings reported by schools and teachers who have implemented e-portfolios, including best practices of implementation, so as to benefit from their experiences. This triangulation of data helps increase the validity and reliability of the content of my project (Creswell & Creswell, 2018) in addition to the inclusion of Knowles's adult-learning principles.

Audience

The intended audience for this session are educators; including elementary teachers, administrators, and other school leaders. Those who would benefit from this professional development session are educators who are already working with e-portfolios in their classrooms and schools or educators who are considering the

implementation of e-portfolios. While I am a third-grade teacher and am researching how I can best impact my third-grade students' learning, the research presented in the professional development session reaches beyond just third grade. What will be learned in this session could be applied or adapted for various levels.

Setting

I intend to present this professional development session at a district-wide professional development day during the 2018-2019 school year. In years past, a portion of our professional development days has been dedicated to teacher-led breakout sessions. Teachers plan and prepare a breakout session to teach to their colleagues who are interested. Teachers and administrators sign up for the sessions that most pertain to their needs. In my district all elementary students have e-portfolios, and I believe some of the high school students do as well. With a vast number of students in our district using e-portfolios, I believe a session catering toward e-portfolio purposes, best practices, and their impact on student ownership and engagement would be beneficial and of interest to many.

How Effectiveness Will Be Measured

The immediate effectiveness of this presentation will be measured through an end-of-session reflection or exit ticket using Google Forms. Using Google Forms upon completion of a professional development session is common practice in my district, and therefore, will be an effective and familiar way to measure the effectiveness of the workshop. At the end of my session I will ask the following questions: What do you already do in your classroom that was confirmed as a best practice in today's presentation? What is one (or more) change(s) to your e-portfolio implementation that

you will take away from today's presentation? Agree or disagree: What I learned today will help improve my students' sense of ownership and engagement. What do you still have questions about? What would you like to know more about? It is these questions that will allow me to assess the immediate effectiveness of my professional development session.

While measuring the immediate effectiveness of my professional development session is important, so is measuring its long-term effects. The ultimate goal of the session is to provide teachers with the knowledge and skills to positively impact their students' learning over time. Teachers will learn how to implement best practices with e-portfolios, and in turn, help increase their students' sense of ownership and engagement. The long-term effects of this session, will therefore be evident only on the classroom level. Individual teachers will be responsible for observing and measuring the effectiveness of their learning as a result of the e-portfolio professional development session.

Timeline

The planning and creation of this professional development session will be started in September 2018 and will be completed in December 2018. Once the development of the session is complete, I may be able to lead the breakout session on one of the following dates in 2019: January 18, February 15, March 8, or April 19. The date I present will dependent on the district's plan for each of these professional development days.

Contribution to Research

As previously stated in this paper, there is minimal research available on e-portfolios implemented in K-12 classrooms, and even less research on e-portfolios implemented specifically in elementary classrooms. Teachers, kindergarten through twelfth grade, do not have enough research from which to learn, and not enough resources to which they can turn. My capstone project aims to begin to fill this void, to provide teachers with research and resources, so they can successfully implement e-portfolios in their classrooms and help increase their students' sense of ownership and engagement.

Chapter Summary

In this chapter I presented my plan for a professional development session on e-portfolios, which including e-portfolio purposes, best practices to be used in implementation, and how e-portfolios can impact students' sense of ownership and engagement. Included was my initial research question: *what are the best practices related to implementing electronic portfolios that will help increase my third-grade students' sense of ownership and engagement?* From there I included a description of my professional development session and the rationale for the framework of the session, which included my considerations to ensure my project was both valid and reliable. Then I shared my intended audience and setting, how I will measure the effectiveness of the session, and the overall timeline for the project.

In the upcoming chapter, Chapter Four I will reflect upon my capstone project as a whole. I will reflect on what I have learned throughout this process. I will revisit my literature review, highlighting what sections or resources were especially influential. Additionally, I will share new connections or understandings that surfaced as a result of

my literature review. After that I will share the implications and projects limitations based off of my findings and research. To end the chapter, I will share future ideas for research around electronic portfolios, student ownership and engagement, and will state more on how this project will benefit my personal practice and the education profession.

CHAPTER FOUR

Project Conclusion

Introduction

The purpose of this project has been to explore the best practices related to the implementation of electronic portfolios with my third-grade students. I've aimed to understand how implemented best practices can help increase students' sense of ownership and engagement. I sought to understand the effectiveness of electronic portfolios in order to help other educators build a strong sense of ownership and engagement among their students. Specifically, I investigated the following question: *what are the best practices related to implementing electronic portfolios that will help increase my third-grade students' sense of ownership and engagement?*

In this chapter, I will reflect upon my capstone project as a whole. First, I will reflect on what I have learned throughout this process. I will then revisit my literature review, highlighting what sections or resources were especially influential. Additionally, I will share new understandings that surfaced as a result of my literature review. After that, I will share the implications and project limitations based off of my findings and research. To end the chapter, I will share future ideas for research around electronic portfolios, student ownership and engagement, and will state more on how this project will benefit the field of education.

My Learning Throughout the Capstone Process

Overall, I have learned a great deal about myself as a researcher and scholar as I completed the capstone process. First, I learned that it takes time to conduct proper research in a specific area. As I began to research electronic portfolios, student ownership and student engagement, I became better and more refined in my process. The more research I conducted, the more knowledgeable I became as to the various terms I should use, the specific journals I should focus in on, as well as the major authors and contributors I should be sure to pay close attention to. Two major experts in the field of portfolios in the K-12 setting are Dr. Helen Barrett (Barrett, 2007) and Elizabeth A. Hebert (Hebert, 2001). Both experts have contributed vital research from which I learned and synthesized in the development of my capstone project and professional development session.

Throughout my research and the capstone process I also learned that it cannot be done easily in isolation. It is best done in collaboration with others. This summer I took the Capstone Practicum course online, which involved developing my research question and the first drafts of Chapters One through Three. Taking the course online left minimal face-to-face contact with other graduate students and professor. I felt very overwhelmed by the process, not having routine times to discuss and ask questions in person. It is challenging to sort through possible research questions, points of view, and chapter outlines without being able to brainstorm and process with other experts in the education profession. I have learned that I am a researcher and scholar who benefits from sharing and processing my ideas out loud with others. My process and research greatly improved through asking questions of fellow graduate students, talking through my ideas with my content expert, and through the feedback of my capstone project facilitators.

Revisiting the Literature Review

In addition to learning about myself as a researcher and scholar throughout the capstone process, I also gained new understandings about the field of research on e-portfolios and their impact on student ownership and engagement. E-portfolio implementation within the K-12 setting is still a relatively new concept, and therefore there is limited research available. Educators in the K-12 setting are in need of more research on this emerging and prevalent tool. Many of the influential researchers referenced in the Chapter Two Literature Review have begun to pave a path for further research to follow.

One of the areas of my literature review that is most important to my capstone was my initial research on the different types of e-portfolios. To review, there are three main types of e-portfolios that can be used within the K-12 setting (Barrett, 2007). Knowing these three types e-portfolios; learning, assessment, or mixed-purpose, is the first step an educator must take prior to implementing e-portfolios within their classroom, school, or district. It is the first critical step because currently some e-portfolio programs offer a wide array of capabilities, including but not limited to, learning management systems, built in assessments, various modes of communication, and various ways for student reflection (Heide et al., 2016). With the wide array of capabilities in some programs, the purpose of the type of e-portfolio could be easily lost or confused, and elements within an e-portfolio should always support its primary purpose (Zubizarreta, 2009). Maintaining the integrity and purpose of an e-portfolio is imperative for educators who are in the implementation process.

The second area of my literature review that is most important for my capstone is the section of research on best practices for schools, students, teachers, and families. This section is important because it is these outlined practices that will lead to increased student ownership and engagement. Technology itself can be motivating for students, as it can entertain and occupy their time (Zubizarreta, 2009). Occupation of learners' time, though, is not the same as engaging students in true, meaningful learning. Educators need to employ best practices to ensure that students have a sense of ownership and increased level of engagement in their learning.

While there were two main areas of my literature review that I felt were most important, there is also a new understanding I have taken away from this project as a result of my literature review. Through conducting my research, I have come to the understanding that technology moves faster than the research surrounding it. As I reflect on the research compiled and reviewed for this capstone, it is evident that many e-portfolio programs reviewed or referenced now function differently or are no longer a prominent tool being used in classrooms. Additionally, according to my research, there are programs and tools that are currently being used in K-12 classrooms that have not yet widely been included in scholarly studies. Due to the speed of technology and its products for education, it is imperative that educators employ best practices. While products and programs may change, it is these best practices, regardless of product or program, that will bring success in building students' ownership and engagement in their learning.

Implications

As stated above, we need to know more about e-portfolios within the K-12 setting, and specifically within the elementary setting. E-portfolios are a growing tool used in K-12 schools, and since the emergence of Web 2.0 and user-generated content, e-portfolios have only continued to expand their role. E-portfolios have become much more interactive and have provided creators with an immediate audience. Creators are able to meaningfully share their learning, not only to their peers, family, and friends, but in some instances on a global platform.

Furthermore, I have concluded that a significant component to successful e-portfolio implementation, in addition to selecting an appropriate type of e-portfolio and implementing best practices, is the trust in agency that an educator must put in their students. Elizabeth A. Hebert (2001), stated that "Viewing children as competent and trusting the student to make meaningful decisions requires patience" (p. 113), and I would argue that for many educators developing this viewpoint can be difficult. It can be challenging to have the patience and confidence to trust in your students' ability to make meaningful decisions about their learning, especially with younger, elementary aged students. It is clear, though, when educators support their students to take ownership in their learning, the product is engaged students.

Project Limitations

As I reflect on my capstone, there are two major project limitations I have encountered. First, while I have prepared a professional development session to deliver to fellow educators within my district, this is dependent upon the structure of our district-wide professional development days. It the past, we have had one or two days a year that have included teacher-led breakout sessions. As mentioned in Chapter Three, this is how

I envisioned delivering my e-portfolio professional development session. I planned to offer it as a breakout session that educators could choose to attend. I am hopeful that later this year, one of our professional development days will take on this format and I will be able to deliver my professional development session. If our future professional development days do not take on this format, I will have to look to alternative times to deliver my session.

In addition to my district being in charge of the professional development schedule, it is also in charge of purchasing subscriptions for our e-portfolios. Currently, my district uses e-portfolios in kindergarten through fifth grade. As a third-grade teacher, I use e-portfolios with my students, but I do not oversee or make decisions as to whether we will continue to use them in the future. While I would be surprised if my district were to stop using e-portfolios, this is a factor that is out of my control. If the district decided to stop the use of e-portfolios, I would have to look to a different audience to deliver my professional development session.

Ideas for Future Research

In moving forward there is one main area of research I would love to see explored in regard to the use of e-portfolios. As summarized in this paper, current research shows that when using best practices in implementing e-portfolios, student ownership and engagement are likely to increase. Much of my research for this paper was gleaned from the educator and researcher perspective. Research from the student perspective is missing and is needed. Future research needs to be gathered on students' reported sense of ownership and engagement, as it would be a truly authentic and valuable point of view that is currently lacking in current research.

Impact on the Field of Education

Through the creation of my professional development session, I have created an opportunity for educators to increase their knowledge-base on e-portfolios. With minimal research available to K-12 educators, more knowledge on e-portfolio implementation is a need that I am beginning to fill. As a result of this project, there will be more trained teachers ready to enlist best e-portfolio practices, to in turn, increase their students' sense of ownership and engagement.

In addition to impacting educators and their ability to implement e-portfolios, I also hope that this project impacts educators' perspective on effective use of technology within their classrooms. A stated earlier in this paper, technology can be very occupying and entertaining, whether it be creating an e-portfolio or something different. To make technology truly engaging, it best be used with intentionally, with best practices in mind, and must have a component that builds a student's sense of ownership.

Chapter Summary

In this chapter, Chapter Four, I reflected overall on my capstone project, a project in which I aimed to answer the question, *what are the best practices related to implementing electronic portfolios that will help increase my third-grade students' sense of ownership and engagement?* I first reflected on what I learned throughout this process. I then revisited my literature review, highlighting what sections or resources were especially influential, as well as new understandings that surfaced. After that, I shared project implications and limitations, and finally I shared future ideas for research around electronic portfolios, student ownership and engagement, and how this project will benefit the field of education.

As a whole, it is evident the field of technology is ever-growing, and there is still much to learn and explore. E-portfolios in education are part of this ever-growing field. I am encouraged and excited by the possibilities now offered to students to take ownership and authentically share their learning and growth with the communities around them through the platform of e-portfolios. I hope other educators are as encouraged and excited by these same possibilities, as they too learn about the potential of e-portfolios in education.

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