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I'll Never Have to Do This After High School: Exploring Students' Perceptions of College and Career Readiness and the Effects of Eportfolios With Reflection on Transferable Skills

Julie Beatrice Kristin

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I'LL NEVER HAVE TO DO THIS AFTER HIGH SCHOOL: EXPLORING STUDENTS'
PERCEPTIONS OF COLLEGE AND CAREER READINESS AND THE EFFECTS OF
EPORTFOLIOS WITH REFLECTION ON TRANSFERABLE SKILLS

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DEDICATION

I dedicate this work to my both of my parents. To my mom, Martha Barry Veale, for always blindly believing in me, for encouraging and helping me to start a career in education to follow in the steps of my late grandmother, Beatrice Barry, and for proofreading all 200+ pages. To my father, Wilfred Roy Kristin (although he will probably never read the 200+ pages), for being supportive and an excellent example of being tireless and hard-working, just like my late grandfather, Dr. Zdenek Kristin.

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ABSTRACT

The ambition of this action research was to evaluate the impact of ePortfolios with a reflection on transferable skills on high school students' perceptions of college and career readiness concerning their high school ELA coursework. Nationwide, studies have revealed that high school students do not consider themselves college and career ready after high school. About 55% of high school students feel that high school is not preparing them for their futures. At the research site, an urban high school in northeastern Georgia, students often complained about their perceived disconnection between classwork and the value of these assignments beyond high school; students made frequent remarks about ELA assignments like, "I'll never have to do this after high school." Because of these concerns, the researcher implemented an ePortfolio with a reflection on transferable skills as an intervention to help students reflect on the transferable skills practiced within high school coursework and its value in their future endeavors in college or a career.

This study focused on three research questions: (a) how and in what ways does implementing an ePortfolio with a reflection on transferable skills in a high school English language arts classroom impact students' perceptions of college and career readiness, (b) how does implementing an ePortfolio with a reflection on transferable skills impact student engagement in a high school English language arts classroom, and (c) what are students' perceptions about using an ePortfolio with a reflection on transferable skills in an English language arts classroom. The entire reflective ePortfolio

study was conducted over eight weeks, but the reflective ePortfolio was implemented over four weeks, with 20 high school student-participants from a 10th-grade world literature course. To measure high school students' perceptions and experiences during the intervention, students responded to the research-created College and Career Readiness Scale (pre survey and post survey), Student Engagement Questionnaire (pre survey and post survey), and ePortfolio Experience Survey (post survey). This quantitative data collection was analyzed, and the results were triangulated with the findings from the qualitative research, which were the ePortfolio reflections and student interviews. After reviewing, cyclic coding, and categorizing of the students' words within the reflections and interviews, this mixed-methods action research provided valuable information on the impact of ePortfolios with a reflection on transferable skills in an English language arts classroom.

Findings from both the quantitative and qualitative data revealed that the ePortfolio with a reflection on transferable skills positively affected high school students' perceptions of college and career readiness in their high school. Furthermore, the results indicated that students' engagement increased and that students' experiences with reflective ePortfolios were positive overall.

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CHAPTER ONE

INTRODUCTION

National Context

Teachers believe that it is their duty to prepare their students to be successful in life after high school. However, Levy and Murnane (2004) discovered in their study on college and career readiness that at least 78% of employers felt that high school graduates were not adequately prepared for their future careers. Furthermore, Carnevale, Smith, and Strohl (2010) revealed that “by 2018, we will need 22 million new college degrees—but will fall short of that number by at least 3 million post-secondary degrees, Associate’s or better” (p. 1). Employers’ lack of confidence in new employees, along with the projected shortage of college graduates, clearly reflects the lack of preparedness of high school graduates. Even students in great schools with skilled teachers still often feel that high school is not preparing them for their futures (YouthTruth, 2017; Reid & James, 2008). High school students are often unaware of how their particular coursework benefits their future goals; this unawareness can cause disengagement and, consequently, lack of preparedness in students and a negative perception of college and career readiness in their high schools (Burke, Jones, & Doherty, 2005). Moreover, studies have found that 55% of high school students feel that high school is not preparing them for their futures (YouthTruth, 2017).

If students are aware that the instruction taking place in high school will help them in the future, then they will be more likely to stay engaged, and as a result, they will be more prepared for their futures. Unfortunately, many students do not see the connection between high school instruction and their future goals. Whether in a pathway class or a core class, still, students often do not comprehend that their schoolwork helps them to reach their future aspirations (Nyhof, 2013; Papineau, 2000; Williams, 2017). This lack of comprehension can result in negative perspectives of high school as being valueless or irrelevant.

For example, this school year, my colleague received an email from the parents of a student; the parents claimed that the assignment, to create a poster about types of conflicts within a novel, would not help prepare their son for his future. The parents insisted that the poster assignment was a waste of time, and they wanted their son to be involved with more important projects. Of course, the parents and their son did not comprehend that the learning targets within the poster project were to analyze, summarize, and present information; all that the student and parents considered was the final product, not the skills required to create the final product. The parents and the student were utterly unaware that the project was teaching and instilling valuable transferable skills that carry over after high school, and therein lies the problems. Transferable skills, like analysis, summary, and communication, are vital to students having successful futures (Kemp & Seagraves, 1995). Yet, many high school students perceive assignments, such as creating a poster, as meaningless and irrelevant.

To help students understand and evaluate their classwork, teachers sometimes incorporate portfolios into instruction. Paper portfolios have traditionally been a staple in

classrooms as a way for students to collect and reflect on their work and accomplishments throughout a course and for teachers to assess students' growth and performance (Welch & Barlex, 2004; Yancey, 1993). While many students today still use portfolios in the classroom, technology has changed learning and changed the traditional portfolio. Students no longer have to learn in the same, conventional ways that students did years ago before technological advancements, but instead, students now can use technology, like an online portfolio, to help them focus on learning skills that will help them in the workplace (Kahn, 2014; Mead, 2016; Yancey & Weiser, 2010). Electronic portfolios (ePortfolios) integrate technology with learning and have the potential to help students more easily make connections between classroom instruction and the skills needed to be successful in future endeavors.

While Roberts, Maor, and Herrington (2016) noted that ePortfolios are practical to store students' work, they argued that ePortfolios could be employed more efficaciously to amplify the opportunities for the progression and awareness of higher learning skills. More specifically, Shepherd and Hannafin (2011) concluded that ePortfolios were a means for students to legitimately comprehend how they applied their knowledge to create a meaningful product. It is vital for students to not only reflect on the outcome of their assignments, but students also need to be aware of all the processes and, more specifically, the skills that they used to create the product.

For example, even if most students do not need to know about a scientific concept, like photosynthesis, to be successful in their futures, they do need to practice various skills like communication and critical thinking that a project on photosynthesis might require of students. When students become conscious of using transferable skills

instead of only focusing on the final product or the specific content knowledge, then they will find more relevance within their classwork. Thus, they will be more likely to become engaged and successful in their coursework and their futures (Clark & Svanaes, 2014; Kahn, 2014; Lorenzo & Ittelson, 2005; Yancey, 2001).

While there is an ample amount of research on ePortfolios, the information centers on the pedagogy to create and implement them. According to various studies, ePortfolios should include: (a) a specific purpose (McCowan, Harper, & Hauville, 2005), (b) a connection to the classwork (Hallam, Harper, & McCallister, 2008), (c) a scaffolding approach with support for pedagogy and technology (Pelliccione, Dixon, & Giddings, 2005), and (d) a designated amount of time (Hiller, Pauschenwein, & Sandtner, 2007). I am unaware of any studies that have specifically targeted the use of ePortfolios with a reflection on transferable skills to help students to connect the skills used in classroom activities to the skills needed to be successful in their future goals after high school.

Local Context

According to the high school principal at the research site, the school aims to incorporate technology into classrooms and prepare students to be successful in their future college coursework and careers. To try to satisfy the needs of the 1,747 students in this school, educators could potentially use technology to help students become aware of the skills and knowledge that they are currently learning and connect it to their future goals. Presently, through the school's technology platform, Canvas, there is an ePortfolio application available to students and teachers. According to the county's information technology (IT) personnel, there is approximately 0% use of this platform across all the

schools within the county. The county's IT personnel offered several reasons for its lack of utilization, which included the following issues: (a) lack of teacher technology training, (b) lack of user-friendly interface, and (c) the inability to export the ePortfolio. After exploring Canvas' ePortfolio myself, I concluded that teachers in my school were most likely not using this ePortfolio because of a combination of all three reasons.

Canvas' ePortfolio was not easy to use as some of the interfaces were confusing; compared to Canvas' ePortfolio, other online sites provide much more user-friendly applications for both teachers and students. And even more importantly, the ePortfolio should be created on a platform that is available to access beyond high school, and the Canvas' ePortfolio can only be accessed with a high school account and login. While the ePortfolio will provide awareness and connections for students, it could also be used for future resumes and interviews if it were to be created on a universal platform. After reviewing Canvas' ePortfolio, it was evident why there was 0% use throughout all schools within the county. While Canvas' ePortfolio would not suit the needs of high school students in this local context, there are other free, online universal platforms, like Google Sites, that could be used in place of Canvas' ePortfolio to help students in this high school.

When high school students are in classrooms that seem distant from their interests, they find it challenging to see relevance within the teacher's instruction. For example, if a student has a goal to be a history professor, then he may find his science class uninteresting as he does not believe that his science assignments are beneficial to reaching his career goal. Thus, in this all-too-common scenario, high school students have little reason to be engaged or motivated to complete the assigned work in certain

classes that they deem irrelevant to their future. However, students often do not realize that they are learning more than just a science concept; they are also learning or practicing transferable skills like communication, critical thinking, time management, etc. that are beneficial to almost all future careers.

Personal transferable skills, or 21st-century skills, are a crucial part of education so that graduates can succeed in college courses and benefit any employer (Kemp & Seagraves, 1995). As a teacher, I know that it is an impossibility to create hundreds of individualized ePortfolios for each of my students to show them the critical skills used within every one of our course assignments. It would be even more impossible for a teacher to have the time to make the connections from the skills used in each assignment to skills that specifically meet the goals of each student. Teachers cannot craft hundreds of personalized ePortfolios to illustrate to students how particular skills within classroom activities can benefit them in the future. However, teachers can provide customized learning experiences that are engaging and worthwhile that guide the learner to reflect and make connections for himself.

By implementing ePortfolios, teachers could potentially give students a minimal and reasonable amount of time to individually reflect on transferable skills and the relevance to their future goals. Within a reflective ePortfolio, learners could independently make valuable connections between skills used to complete class assignments and how those same skills transfer to life after high school, helping them become successful in the future (Roberts et al., 2016). With reflective ePortfolios, students can uncover how each task instills or builds useful skills and knowledge that will help them become college and career ready. This reflection on transferable skills within

the ePortfolio could encourage engagement and show direct relevance to students' future goals, which could alter students' perceptions of college and career readiness within their high school.

Statement of the Problem

At times, students are not engaged in the classroom because they are unaware of the connection between the transferable skills within instruction and their future career and life goals. Boyle (2015) asserted that students should focus on learning skills that will help them in the workplace, and Josten (2015) affirmed that “to increase student preparedness, retention, and graduation rates for postsecondary challenges, it is critical to consider the skills and abilities students will need after high school” (p. 95). At the research site, high school students often complained that they were not learning any skills that would help them become prepared for the real world. In response to classroom instruction and assignments, they made remarks like, “I’ll never have to do this after high school.” While students often hear teachers state the skills that they are learning that day, most students still do not consider the assignment to benefit them or their futures. Until a student makes a personal connection between classwork and his future goals, he will most likely remain oblivious to the importance and relevance of classroom instruction and activities, which can result in a lack of engagement, lack of learning, and lack of college and career preparedness.

Technological learning tools, like reflective ePortfolios, have the potential to impact students' perceptions of college and career readiness positively. An ePortfolio with a reflection on transferable skills could guide students to review and reflect on their learning processes within the assignments that they create within a course. Upon this

reflection, students would have the opportunity to discover specific transferable skills used within the assignment that relate directly to the skills needed to achieve their future goals in college or career.

Purpose Statement

This action research will evaluate the effects of using ePortfolios with a reflection on transferable skills on high school students' perceptions about college and career readiness and their engagement in an English language arts classroom at the research site.

Research Questions

This study seeks to discover the impact of ePortfolios with a reflection on transferable skills on high school students' perceptions of college and career readiness.

The specific questions investigated are:

1. How and in what ways does implementing an ePortfolio with a reflection on transferable skills in a high school English language arts classroom impact students' perceptions of college and career readiness?
2. How does implementing an ePortfolio with a reflection on transferable skills impact student engagement in a high school English language arts classroom?
3. What are students' perceptions about using an ePortfolio with a reflection on transferable skills in a high school English language arts classroom?

Statement of Research Subjectivities & Positionality

As an educator of ten years, I initially entered the educational scene when technology integration was a trending topic in graduate educational courses throughout my master's in education and specialist in teacher leadership programs. Therefore, I am familiar with being a student and a teacher of technology. I am a certified online

educator, and I lead educational technology professional development sessions within my school. Technology has always been a part of my education.

Ironically, it was a lack of technology during an overseas stint of teaching in South Africa during my master's program that made me realize the power that technology can have in education. In my South African high school classroom, there was no technology—just wooden desks and a chalkboard in an otherwise empty classroom. I brought my MacBook and iPad so that my South African students, who had never used a computer in their school, could view music videos as an introduction to a unit and create projects on various applications. Additionally, they were able to submit group assignments electronically for the first time in their lives. My South African high school students exhibited complete astonishment and joy as they used my laptop to learn and create in a brand new way. These high school students gave extremely positive feedback about technology implementation in the classroom. Because of these South African high school students' positive reactions to educational technology, my belief that technology is a vital tool for engagement and learning in the 21st century was solidified. Whether in South African high schools or American high schools, I have witnessed the positive impact that technology has on students and their learning, which is the reason that I am pursuing my doctorate in curriculum and instruction with a focus on educational technology.

As a result of living, learning, and teaching in South Africa, I realized that I acquired the most valuable knowledge through my travels. Because I have been fortunate enough to travel to approximately 25 countries, I have participated in and learned about various cultural experiences and, and at the same time, I shared my own culture and ways

of life with people all over the world. Within these cultural exchanges, when people shared their identities and their beliefs, the most meaningful and genuine learning occurred. Therefore, in addition to educational technology, I place importance on the teaching philosophy that one's interests and one's active participation significantly impact learning. I believe that students retain the most information from instruction when they are actively participating and when students' personal lives and components of their identities are shared and incorporated into their education (Brophy, 2010; Mertens, 2009). By becoming an active participant in learning and by having some form of one's identity placed within the context of education, students instinctively become more interested, engaged, and educated (Josten, 2015).

Because of this personal reflection on my own learning experiences and philosophies, the creation and application of this research occurred under the pragmatic paradigm. Pragmatism values the researcher's goals (Mertens, 2009), and thus, my paradigm and goals motivated my research study by emphasizing action and inquiry concerning high school students' use of reflective ePortfolios. I aimed to be a facilitator of pragmatism by assisting students to be active participants in their learning with the ability to relate information to their own lives and beliefs (Haberman, 2003; Morgan, 2014). In this pragmatic way, students communicated their involvement and experiences with the ePortfolio innovation, which was vital to relay accurate data (Hammond, 2013; Mertens, 2009). To get the most exact results, I valued the importance of the researcher's collaboration with participants in research studies (Kinash, 2018). Continually aligning to the pragmatic paradigm, the research included mixed methods by bringing together

researched and established principles and measures of students' perceptions and engagement with experiences of student-participants in the study (Mertens, 2009).

In the classroom, I always attempted to remain objective when I interacted with diverse students and assessed their distinct work. To remain as objective as possible in this study, I contemplated my own potential biases, and as a researcher, I was also vigilant of potential predispositions. As a white female, I attended a small, predominantly white, private Christian school from kindergarten through 12th grade. My high school always had the newest technology as it came out, but I recognized that most schools are larger, more diverse, and many lack the necessary funding for technology. To help counteract my subjectivity, I have been fortunate enough to have traveled to remote villages, small cities, and many developing countries to see firsthand how schools and students are similar, but also to see how they differ in terms of ethnicities, cultures, funding, and technology, among other differences. Even though my experiences have made me very open-minded, I stay mindful of potential biases that could interfere with my perspective on my research.

Despite healthy relationships with my students, I underwent the process of reflexivity, staying alert to my positionality since it changed depending on the context. During my action research project, I considered myself an outsider (Merriam, Johnson-Bailey, Lee, Kee, Ntseane, & Muhamad, 2001). Even though I am a graduate student, currently, I am not a part of the same culture as my high school participants. Thus, since I was also in an authority position as their teacher, I could not consider myself an insider. While I expected my study to have a positive impact on students, I tried not to influence

them toward a predicted outcome, but rather, I encouraged them to speak freely and truthfully throughout this process to get the most impartial and genuine results.

Definition of Terms

ePortfolios with a Reflection on Transferable Skills

A profound definition of the ePortfolio was explicated by Duncan-Pitt and Sutherland (2006):

A system that belongs to the learner, not the institution; populated by the learner not their examiner; primarily concerned with supporting learning not assessment; for life-long and life-wide learning not a single episode or a single course; that allows learners to present multiple stories of learning rather than just a simple aggregation of competencies; and, importantly, where access to them is controlled by the learner who is able to invite feedback to support personal growth and understanding (p. 70).

Specifically, in this study, ePortfolios with a reflection on transferable skills are electronic portfolios that allow students to link classroom instruction and assignments to skills that they need for their future goals while providing enriched opportunities for the advancement of higher learning proficiencies that can potentially show that students are ready for college or a career.

Reflection

While there is not a clear consensus on the definition of this term by researchers, in this study, reflection is defined as an activity by an individual who is actively engaged by an uncommon occurrence that includes examining his or her responses in the present situation, resulting in new knowledge of his or her experience (Rogers, 2001).

Transferable Skills

Commonly, transferable skills are known as the abilities that one can use across a variety of contexts. Specifically, transferable skills will be used to refer to 13 specific abilities that are commonly and frequently ranked as necessary by employers: (a) adaptability, (b) analysis, (c) communication, (d) initiative, (e) IT, (f) leadership, (g) motivation, (h) numeracy, (i) organization, (j) presentation, (k) problem solving, (l) self-confidence, and (m) team-working (Bennett, 2002).

College and Career Readiness

College and career readiness is traditionally defined as students being able to be successful after high school graduation. According to National Forum on Education Statistics (2015), “a student is college and career ready when he or she has attained the knowledge, skills, and disposition needed to succeed in credit-bearing (non-remedial) postsecondary coursework or a workforce training program to earn the credentials necessary to qualify for a meaningful career aligned to his or her goals and offering a competitive salary” (p. 1).

Engagement

Engagement is defined by student participation and interest in instruction with and without the ePortfolio intervention. Josten (2015) further defines engagement as “a student’s sense of belonging or strength and degree of connection with a school or learning as indicated by the amount of time a student spends actually doing schoolwork, their attendance, active participation in classes, or the extent to which students perceive the relevance of school to future aspirations” (p. 19). The four types of engagement are agentic, when students constructively contribute to their education (Reeve, 2012),

behavioral engagement, which is more observable (Patall, 2016), affective, which involves the emotions of the learner (Carter, McGee, Taylor, & Williams, 2007), and cognitive, which focuses on the less noticeable effort that is mentally expended (Wang & Fredericks, 2014).

CHAPTER TWO

LITERATURE REVIEW

The purpose of this action research was to implement and evaluate the effects of an ePortfolio with a reflection on transferable skills within a 10th grade English language arts course in a high school in northeastern Georgia. Specifically, this study will examine the effects of reflective ePortfolios on high school students' perceptions of college and career readiness, engagement, and other learning experiences. This study considered the following three questions: (a) how and in what ways does implementing an ePortfolio with a reflection on transferable skills in a high school English language arts classroom impact students' perceptions of college and career readiness, (b) how does implementing an ePortfolio with a reflection on transferable skills impact student engagement in a high school English language arts classroom, and (c) what are students' perceptions about using an ePortfolio with a reflection on transferable skills in a high school English language arts classroom. Ultimately, this research aimed to discover how an ePortfolio with a reflection on transferable skills will impact students' perceptions of college and career readiness, engagement, and the ePortfolio experience in high school classes.

Research Methodology

When searching for literature on trends and issues related to ePortfolios, college and career readiness, transferable skills, and engagement, I accessed the University of South Carolina EBSCO host advanced search to select several databases to pull the most recent, relevant, and peer-reviewed articles and excerpts. *ERIC, Academic Search*

Complete, Computer Source, Education Full Text, Education Source, Professional Development Collection, and Teacher Reference Center were used to search the following terms: ePortfolios (plus the synonym 'portfolios'), college and career readiness (plus the synonym 'college and career ready'), transferable skills (plus the synonyms '21st-century skills' and 'technical skills'), and engagement (plus the synonym 'participation'). Next, I selected the following criteria to narrow my search: peer-reviewed, full text, and English. Since my focus was to find peer-reviewed articles, I decided to search for scholarly articles solely.

Additionally, I preferred to use the 'Boolean/phrase' search for full-text articles in English. The topics of ePortfolios, college and career readiness, transferable skills, and engagement yielded expansive results that related to my action research study. Still, I did not find a study that was specific to my exact purpose of using an ePortfolio with a reflection on transferable skills. I selected the titles, authors, and abstracts to see the most relevant articles to my research for further review. The main trends in these articles emphasized the implementation of ePortfolios to enhance reflection and learning in online and traditional secondary and higher educational settings.

Also, 'engagement,' 'college and career readiness,' and 'transferable skills' were searched in the same all-encompassing way as 'ePortfolio.' The extensive searches generated hundreds and hundreds of results. Once again, I narrowed the results down to the most relevant ones to my study on ePortfolios with a reflection on transferable skills. My goal was to focus on articles that combined ePortfolios or technology with engagement or college and career readiness or transferable skills. The topics of ePortfolios, college and career readiness, transferable skills, and engagement were broad;

results varied greatly, but many search results applied to my action research project as I continued to evaluate and narrow my results.

The review of this literature is organized into four main sections. The first section provides an overview of the history and evolution of portfolios into ePortfolios, and it includes the specific types and characteristics of ePortfolios. The next part of the review focuses on defining and measuring engagement in education. More specifically, this section will describe the four types of engagement: agentic engagement, behavioral engagement, emotional engagement, and cognitive engagement. Following the engagement section, college and career readiness is examined and described, and lastly, transferable skills are reviewed and explained. The literature review is organized into the following sections: (a) portfolios, (b) engagement, (c) college and career readiness, and (d) transferable skills.

Portfolios

Discussing the history and evolution of the traditional paper portfolio into the electronic portfolio (ePortfolio) is crucial to this study because ePortfolios are the vessels in which students reviewed their assignments and reflected on their learning and relevance to their lives. This section provides information on (a) defining portfolios/ePortfolios, (b) labeling ePortfolios, (c) characterizing ePortfolios, (d) integrating learning, (e) assessing ePortfolios, and (f) applying the theory of constructivism.

Defining Portfolios/ePortfolios

There is not a universally accepted definition for portfolio or ePortfolio (also variably known as electronic portfolios, digital portfolios, or webfolios), but there is a

consensus of common defining points. Both (a) portfolio and (b) ePortfolio meanings are reviewed.

Defining portfolios. Portfolios have been defined as a compilation of a learner's effort, progress, and accomplishments which always account for learning and often, collectively, assessment (Anderson, Grant, & Speck, 2008; Paulson, Paulson, & Meyer, 1991; Welch & Barlex, 2004; Yancey, 1993). Furthermore, portfolios are defined as complex and comprehensive expressions of a learner's identity in specific contexts (Hartnell-Young, 2004; Paulson et al., 1991; Sanders, 2000). Their purpose is to grow the learner's metacognition, reflection, and self-awareness, demonstrating student learning and achievement (Kahn, 2014; Paulson et al., 1991; Yancey, 2001). Writing programs have valued portfolios for years, and by the 1980s, other educational programs and subjects began integrating portfolios into their curriculums as well (Batson, 2002; Mead, 2016; Yancey, 2001). Portfolios took the form of standard notebooks, binders, and folders. Today, portfolios continue to yield constructive feedback from both educators and students alike in multiple disciplines.

Defining ePortfolios. Inevitably, as computers and the internet became prevalent in schools and homes in the 1990s, the paper portfolio spawned its direct predecessor, the electronic portfolio (Kahn, 2014; Hartnell-Young, 2004). Quite simply, ePortfolios are portfolios that have been transformed through technology from a paper format into a digital format, allowing for more advantageous, varied, personalized, and genuine artifacts by learners (Kahn, 2014; Lorenzo & Ittelson, 2005; Roberts, Maor, & Herrington, ., 2016; Yancey & Weiser, 2010). Constructively, ePortfolios promote time-saving, creativity, diverse digital artifacts, enhancement of sharing, honing of computer

skills, and emphasis on personalization (Abd-Wahab, Che-Ani, Johar, Che-Ani, Ismail, & Abd-Razak, 2016; Beetham, 2006; Roberts et al., 2016; Shepherd & Hannafin, 2011). While the traditional portfolio still has a place in education, its transformation into the ePortfolio has transitively enhanced students' means for expression, learning, and assessment.

In this research, an ePortfolio is an individual's online space for digital artifacts that show a learner's effort, progress, and accomplishments which account for learning and, often, collectively, assessment (Anderson, Grant, & Speck, 2008; Paulson et al., 1991; Welch & Barlex, 2004; Yancey, 1993). Also, in this study, ePortfolios are intended to help students to meaningfully understand the occurrence and importance of transferable skills in the classroom in context to college and career readiness (Roberts et al., 2016).

Types of ePortfolios

While an ePortfolio can fulfill many goals, it is essential to define objectives and purposes for each ePortfolio, especially since a variety of disciplines frequently use ePortfolios (Bartlett, 2006; Curry & Lambie, 2007; Flanigan & Amirian, 2006; Okoro, Washington, & Cardon, 2011; Vernazza, Durham, Teasdale, Cotterill, & Scott, 2011). Many researchers see the value in labeling ePortfolios into categories like (a) showcase, (b) assessment, and (c) working (Anderson et al., 2008; Barrett, 2007; Danielson & Abrutyn, 1997; Matthews-DeNatale 2014). Showcase ePortfolios highlight students' most exemplary work, while instructors standardize ePortfolios for assessment purposes; working ePortfolios develop with the student as he learns and grows (Anderson et al., 2008; Danielson & Abrutyn, 1997; Papineau, 2000). The working ePortfolio displays a

variety of work from drafts to finished products, showing an authentic evolution of the learner throughout multiple stages of the learning process. Both the instructor and the learner need to be aware of the type of ePortfolio, the purpose of the ePortfolio, and the connection that the ePortfolio makes between skills used in their ELA assignments and skills needed to be successful in the future.

Characteristics of ePortfolios

While specific types of ePortfolios vary, certain characteristics should be present in all ePortfolios to make the creation and use of them a positive experience for learners. Four significant ePortfolio characteristics include (a) personalization, (b) reflection, (c) goals, and (d) technology innovation.

Personalization

Students are often involved in the creation of their ePortfolio, which allows them to personalize everything from the color schemes to the organization of content. Online applications, like Google Sites, enable students to easily customize and arrange their ePortfolio (Anderson et al., 2008; Goodine, 2010; Hallam et al., 2008). Students are also encouraged to personalize their artifacts by choosing how they will create and present their work, which reinforces ownership of their work (Hallam et al., 2008; Hiller, Pauschenwein, & Sandtner, 2007; McGuinness, 2015; Pelliccione, Dixon, & Giddings, 2005). Individualized ePortfolios are done by the student, not to the student, and students' personal selections convey more information to the instructor than most other forms of learning or assessments (Paulson et al., 1991). As a result, when personalized learning is a priority for students, they tend to learn and achieve more (Pane, Steiner, Baird, Hamilton, & Pane, 2017),

Reflection

Educators must remember that students do not learn from experience alone, but rather, from reflection, which allows students to essentially learn about learning (Dewey & Boydston, 2008; Paulson et al., 1991; Pavalovich, Collins, & Jones, 2009).

Contemplation on the learning process, including both failures and successes, is an essential component of ePortfolios. ePortfolios help students become reflective learners who are conscious of their personal and professional strengths and weaknesses (Hallam et al., 2008). Reflection of one's work is crucial for students to become self-aware of the skills used in completing each assignment and how those skills will help them beyond the classroom (McGuinness, 2015; Mead, 2016; Rogers, 2001; Shepherd & Hannafin, 2011). Reflective remarks by the learner are vital companion pieces to the artifact itself because the student can communicate and interpret their thoughts to the instructor in such a way that is not possible in standard assignments or assessments (Paulson et al., 1991; Pavalovich et al., 2009; Stefani, Manson, & Pegler, 2007; Wolf & Dietz, 1998).

Goals

To take ownership of their learning and to be motivated to complete tasks, students need to set goals that help them become more confident and independent learners (Boekaerts & Corno, 2005; Paris & Paris, 2001; Stoeger & Ziegler, 2008; Zimmerman, 1989). ePortfolio artifacts should be linked to personal, meaningful interests that develop into goals and continue to expand beyond high school (Bandura, 2001; Mead, 2016; Goodine, 2010).

Technology

Using innovative technology engages the 21st-century learner. Since technology has been a factor in the creation and utilization of ePortfolios, the learner also becomes more engaged with user-friendly, computer-assisted instruction, and ePortfolios permit students to easily share their work and accomplishments to instructors, peers, and even social networks (Mead, 2016; Shepherd & Hannafin, 2011). The ePortfolio supports creativity and reflection within projects of an educative configuration and fosters an increase in technological abilities (Lopez & Rodriguez, 2009; Spendlove & Hooper, 2006; Cambridge, 2001). ePortfolios incite students to hone and enforce multiple skills simultaneously.

Assessment

ePortfolios offer compelling opportunities for institutions seeking more authentic ways to assess student learning (Chang, 2001; Goodine, 2010; Kahn, 2014). Assessing learners in terms of (a) quality of work and (b) holistic approaches are reviewed.

Quality of Work

Asking students to give quality work means framing the curriculum in such a way that students value it and genuinely believe that it is significant to their learning (Wiggins, 1991). Student's quality of work is also dependent on the quality of the lesson or assignment. The classwork should be relevant and genuine, like reflecting on transferable skills that will be useful in the student's future. Additionally, ePortfolios offer authentic evaluations of learning with more personalized feedback to improve the quality of work (Abd-Wahab et al., 2016; Goodine, 2010). For example, ePortfolios impact the quality of work because they scaffold the learning in a way that leads to

quality revisions and, thus, more successful student outcomes (Barbera, 2009; Goodine, 2010). Furthermore, ePortfolios allow students to collect and view the progression of the quality in their work throughout the learning process.

Holistic Assessment

Accurate assessment necessitates active participators in a student-directed learning experience that reflects a real-world situation (Wiggins, 1991). In terms of evaluation, the ePortfolio provides the learner with genuine, contemplative, collaborative, and individual features. These qualities have advantages over examinations and other more conventional forms of assessments like standardized tests, which do not allow students to employ their strengths in the classroom (Mason et al., 2004; Chang, 2001). Holistic assessment approaches authentically evaluate a student's knowledge and skills throughout the entire learning process, which is more favorable than a student feeling punished by a final examination of memory recall at the end of a course (Abd-Wahab et al., 2016; Barbera, 2009; Mason et al., 2004). For assessments to accurately gauge learning, the assessments must be personalized, natural, and adaptable, promoting camaraderie between the instructor and the learner (Collins & Dana, 1993; Johnson, Mims-Cox, & Doyle-Nichols, 2010; Gordon, 1994). For example, educators can give the same assessment topic but allow students to show their learning through the choices of recording a video, writing a paper, or illustrating through art to then be displayed within the ePortfolio.

Ostensibly, ePortfolios have the potential to more accurately measure learning. ePortfolios are holistic by design because they promote relationships between instructors and learners; ePortfolios allow learners to construct meaning as opposed to only

memorizing knowledge. Furthermore, learners can decide which artifacts are most exemplary of their learning, while teachers can provide personalized feedback. Ultimately, ePortfolios bind instruction, education, and assessments together (Belanoff, 1994; Paulson et al., 1991; Yancey & Weiser, 2010).

Constructivism

Schools have been embracing the 21st-century learner by innovating the classroom structure, changing students from passive learners to assertive leaders. Constructivism urges the instructor to guide student-centered learning for students to construct deeper meaning. The theory of constructivism is relevant to ePortfolio instruction. The following sections examine both the (a) history and (b) the application of constructivism.

Foundations

Dewey, Vygotsky, and Piaget were pioneers and advocates for the theory of constructivism in education. These theorists insisted that learning should be an active process that is relevant to real-life contexts. Dewey (1968) proposed his idea of directed living in which students participated in real-life learning through creativity and collaboration. Vygotsky (1978) valued social constructivism in education where the teachers assisted and coached students in their learning; he believed that students deepened their knowledge via their relationship with their teachers and by building on their prior knowledge. By the 1980s, Dewey's and Vygotsky's ideas had mixed with Piaget's studies in developmental psychology and the broad approach of constructivism. Constructivism supports students learning by doing rather than observing (Jonassen, Peck, & Wilson, 1990; Ertmer & Newby, 2013; Reigeluth, 2012). In a constructivist

classroom, students do not sit quietly behind a desk listening to a lecture. Instead, students are active participants in their learning, using their prior knowledge to build a deeper understanding of the content.

The compilation of artifacts within an ePortfolio promotes reflective and integrative learning. Rogers (2001) analyzed various theoretical methodologies of reflection from the likes of Dewey, Langer, and Schon to find collective concepts about reflection; among many major theorists, reflection was considered a cognitive and affective process that required a prompt and willing participant in a setting with a guided reflection. Directed reflection led to the most positively enhanced cognitive and affective outcomes (Rogers, 2001). Furthermore, many researchers considered reflective ePortfolios as means for profound learning where students can integrate prior knowledge, analyzing highlights of their learning with new understanding (Long, Hallam, Creech, Gaunt, & Robertson, 2012; Nguyen, 2013; Witherspoon & Higashi, 2016; Yancey, 2009). Constructive, reflective, and integrative ePortfolios lead students to reflect on educational artifacts and to make connections between various artifacts and personal identity (Reynolds & Patton, 2014).

Constructivist ePortfolios

The fundamentals of ePortfolios encompassed the ideas of constructivists. Classrooms in which ePortfolios have been implemented place emphasis on relationships and teamwork because ePortfolios encourage students and teachers to work together as learners. ePortfolios nurture the dynamic construction of knowledge and student reflection (Graves & Sunstein, 1992; Smith, 1991; Yancey & Weiser, 2010). For example, Marshall (2008) observed that during ePortfolio implementation, the teacher

was no longer front and center, but the class had taken charge of their learning, which created a positive learning outcome. When creating and constructing ePortfolios, students are at the center of their learning as their teachers guide them to apply their knowledge actively and creatively through various learning artifacts (Stefani et al., 2007).

For instance, students can learn through technology, personalization, and reflection which promotes self-efficacy and engagement (Brown, 2014; Hallam et al., 2010; Jonassen et al., 1990; Hiller, Pauschenwein, & Sandtner, 2007; Lorenzo & Ittelson, 2005; Pelliccione, Dixon, & Giddings, 2005; Schell & Janicki, 2013). ePortfolios foster more purposeful and self-aware learning, which helps create life-long learners, further upholding the constructivist approach to learning. According to Paulson and Paulson (1994), an ePortfolio is:

a learning environment that constructs meaning. It assumes that meaning varies across individuals, over time, and with purpose. The portfolio presents a process, record of the processes associated with learning itself; a summation of individual portfolios would be too complex for normative description (p. 36).

Undoubtedly, ePortfolios have the potential to be a stimulus for the constructivist classroom.

Engagement

Introduction

This study focused on measuring students' perceptions of engagement to see if reflection on transferable skills increased their perceived engagement. Previous studies have found that ePortfolios consistently have positive effects on learners; common benefits have included higher levels of engagement, among other learning gains (Barrett,

2007; Cordie, Sailors, Barlow, & Kush, 2019; Kilbane & Milman, 2017; Strudler & Wetzel, 2011; Turner & Simon, 2013; Fox, Muccio, White, & Tian, 2015; Weber & Myrick, 2018). Therefore, the following sections describe the four types of engagement: (a) agentic, (b) behavioral, (c) cognitive, and (d) affective.

Types and Definitions

Agentic engagement. When a student constructively contributes to his or her learning via personalization, modification, or enrichment, he exemplifies agentic behavior (Reeve, 2012). Reeve (2012) describes agentic engagement as being proactive, intentional, enriching, constructive, and competent in the classroom. For example, students may initiate questions or seek clarification when they are agentially engaged as opposed to passively sitting in class (Tseng and Reeves, 2011).

Behavioral engagement. Behavioral engagement involves perceptible behaviors (Fredricks et al., 2011; Henrie, Halverson, & Graham, 2015; Patall, 2016). This type of engagement is more straightforward to observe than the other types of engagement. Much of this data, like attendance, can even be found within schools' databases. Positive behavioral engagement would include being on time to class and attending consistently; an example of negative behavioral engagement could be lack of attendance and even disrupting the class (Josten, 2015).

Affective engagement. Affective engagement involves the emotions of the learners in context to their learning. Affective indicators include a student's sense of belonging and relationship with teachers, family, and peers (Reschly, Huebner, Appleton, & Antaramian, 2008; Carter, McGee, Taylor, & Williams, 2007). Boredom or irritation can describe negative emotional engagement and can significantly affect students' focus

and interactions in school. Positive emotional engagement examples include the student showing interest, along with showing constructive social interactions with peers and educators (Fredricks et al., 2011; Henrie et al., 2015; Patall, 2016). Reflection fosters a search for emotional connections by the student (Moon, 1999; Zull, 2002), which gives the reflective ePortfolio the potential to increase affective engagement.

Cognitive Engagement. Metacognitive behaviors and self-directed learning are part of cognitive engagement, which is the attention and effort that learners give to comprehension (Fredricks et al., 2011; Henrie et al., 2015; Patall, 2016). Like behavioral engagement, cognitive engagement focuses on the learners' actions. However, cognitive engagement centers on the less noticeable effort that is mentally expended (Reschly et al., 2008; Fredricks et al., 2011; Patall, 2016; Wang & Fredericks, 2014). An example of positive cognitive engagement would be a student who initiates learning, while a student who was less cognitively engaged would exert little effort into their work (Rotgans & Schmidt, 2011). By having open-ended questions like reflection questions, the reflective ePortfolio will require explanatory answers and more intense cognitive engagement from students.

All four types of engagement (agentic, behavioral, affective, and cognitive) play critical roles in academic outcomes. Engagement can determine the level of achievement in learning (Berger & Milem, 1999; Fredricks et al., 2011; Zimmerman & Kitsantas, 1997; Ladd & Dinella, 2009). For research to be comparable, definitions of engagement should be clearly defined because otherwise, findings of achievement and other effects of engagement may be challenging to compare and confirm (Henrie et al., 2015; Fredricks & McCloskey, 2012). In this study, research will focus on all four types of engagement.

Measuring Engagement

While student engagement is imperative in any educational setting, this review focuses on student engagement in context to the reflective ePortfolio. Measuring engagement can be challenging, but both quantitative and qualitative measures are possible.

Previous studies on student engagement with ePortfolios have used quantitative and qualitative measures to gauge engagement through surveys and interviews (Fuller, 2017; Henrie et al., 2015; Mastrorilli, 2016; Rashid & Asghar, 2016). Overall, studies have shown that increased engagement is often a result of ePortfolio implementation (Hilyer & Ley, 1996; Pelliccione & Raison, 2009; Wade, Abrami, & Sclater, 2005). Surveys provide feedback from students for genuine evaluation (Henrie et al., 2015; Mastrorilli, 2016). Surveying and interviewing students can ascertain the various forms of engagement, especially those that are less observable in nature (Fredricks et al., 2011; Fredricks & McColskey, 2012). Interviews can help participants give more detailed feedback on any changes in skills, feelings, attitudes, and behaviors, providing information on all types of engagement (Saldaña, 2013; Patton, 2002; Madden, 2010).

Within this study, the Student Engagement Questionnaire asks students to self-report their agentic, behavioral, cognitive, and affective engagement during this reflective ePortfolio intervention. This questionnaire was based on and adapted from Reeve and Tseng's (2011) Student Engagement Survey. These researchers, who created and implemented this engagement survey, understood that positively engaging students required more than observable engagement. Thus, Reeve and Tseng (2011) proposed a four-part typology of engagement that included agentic, behavioral, cognitive, and

affective subtypes. The Student Engagement Survey has been successfully utilized in studies and showed high internal reliability ($\alpha = .88$) (Reeve, 2011). Reeve and Tseng included 22 statements when they created this survey. The Student Engagement Questionnaire was research-based and informed by Reeve and Tseng's (2011) survey. The Student Engagement Questionnaire required student-participants to respond to 11 statements via a Likert-type scale response of (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, and (5) Strongly Agree.

College and Career Readiness

Students value their learning more when they are aware of how their schoolwork is preparing them to be successful in their future, deeming them college and career ready. This section reviews the (a) definition and (b) characteristics of college and career readiness.

College and Career Readiness Definition

Defining college and career readiness is necessary to this study to understand the emphasis on the ePortfolio reflection on transferable skills and the connection to engagement. College and career readiness is when students have attained the knowledge, skills, and disposition needed to succeed in a postsecondary course or a job aligned to his goals (McGarrah, 2014; NEA, 2015; Williams, 2017). However, many high school graduates do not feel that they have the necessary skills to help them be successful for their futures (Bridges, 1993; Cranmore, Adams, Wiley, and Holloway, 2019; Kinsey, 2011).

From the establishment of educational systems, the goal has been for schools to prepare students for successful futures. Thomas Jefferson asserted that citizens "should

receive an education proportioned to the condition and pursuits of his life" (Sparagana, 2002, p. 26), which shows that he understood that learners need to leave school in a state of being college or career ready. As career academies and STEM pathways have become more and more popular in high schools as means to prepare students for their futures, the term college and career readiness has become a well-known term in education (Cox, 2000; Kemple, 2008). College and career readiness is a collective term that refers to students who are equipped with the necessary transferable skills to be successful after high school. Career-ready refers to a student's employability, and college-ready refers to a student's academic proficiencies (Stone & Lewis, 2012).

Characteristics of College and Career Readiness

Ultimately, college and career readiness is a term that describes accomplishment and potential for future success. More specifically, Solberg (2016) describes students who are college and career ready as students who (a) believe going to college is essential and can identify one or more career goals, (b) perform critical thinking, (c) describe career interests and skills, (d) set life goals, (e) find education meaningful and relevant, and (f) have a network of people who care about their success.

Transferable skills

Students value their learning more when they are aware of the skills within their coursework that would aid them in becoming college and career ready. This section reviews the (a) definition and (b) characteristics of transferable skills.

Definition of Transferable Skills

While there are various definitions for transferable skills, a standard description by researchers refers to transferable skills as skills that are learned in school with

application across multiple contexts, including college and career (Bridges, 1993). This study refers to this simplistic definition of transferable skills.

Characteristics of Transferable Skills

While no one can genuinely rank the importance of one transferable skill higher than another, researchers have conducted studies to understand which skills are more often desired by employers. In general, employers, of all different types of careers, often seek similar skills within their employees. The following 13 skills were commonly considered necessary: (a) adaptability (adjusting to change), (b) analysis (discover, explain, and interpret), (c) communication (verbal and written), (d) initiative (assess and take charge), (e) IT (use of technology), (f) leadership (being a leader), (g) motivation (willingness), (h) numeracy (reason with numbers), (i) organization (plan and order), (j) presentation (publicly speak and demonstrate), (k) problem-solving (finding solutions), (l) self-confidence (trusting one's abilities), and (m) team-working (effectively working with others). Later in this study, these indicators and skills will be explored to see if students are aware that they use these skills within their class assignments and to see if students perceive themselves as college and career ready.

Summary

This literature review has provided an overview of several topics related to (a) ePortfolios, (b) engagement, (c) college and career readiness, and (d) transferable skills. Traditional portfolios have revolutionized into ePortfolios with the advancement of technology, and consequently, ePortfolios have the potential ability to enhance student engagement and college and career readiness (Lorenzo & Ittelson, 2005).

Moreover, the roots of ePortfolios are grounded in constructivism; this theory reminds educators that learners need authentic learning experiences and assessments, like ePortfolios that foster transferable skills, to stay engaged and to help prepare them for their future college or career experiences (Jonassen, et al., 1990; Brown, 2014; Lorenzo & Ittelson, 2005; Schell & Janicki, 2013). When educators only want students to regurgitate a list of memorized names and concepts, they are not adequately preparing their students to be successful in life after high school (Carnevale et al., 2010). Contrarily, a constructivist approach to learning calls for more genuine instructional and assessment methods, like ePortfolios, for learners to build on their knowledge and work continually, throughout their education and their lives; with ePortfolios, learners can develop a collection of their work for assessment, potential job interviews, and personal documentation of accomplishments (Kahn, 2014; Ittelson, 2001; Lorenzo & Ittelson, 2005).

Overall, ePortfolio literature is increasing, and it is also shifting from a focus on theory to data collection. However, there is still a need for more empirical research on successful ePortfolio practices and the effects of these practices on student learning (Bryant & Chittum, 2013; Kahn, 2014). Bryant and Chittum (2013) suggest that while ePortfolio research is increasing, there are still gaps in the literature; researchers need to collect more data on learning growth regarding the ePortfolio's impact on the integration of knowledge and metacognitive awareness. Research that compares learning with ePortfolios to learning without ePortfolio within individual segments of the same class will help to analyze the explicit effects of the ePortfolio.

CHAPTER THREE

METHOD

Introduction

This action research project intended to describe the pedagogical effects of an ePortfolio with a reflection on transferable skills in a 10th-grade world literature classroom at a small urban high school in the southeastern United States. Action research supports this study's objective as it is a thorough approach to research that explores classroom practices with the definitive goal of refining practice and recognizing educational precepts (Holly, Arhar, & Kasten, 2009). In this study, quantitative and qualitative data came from an action research plan that included a series of surveys, ePortfolio reflections, and student interviews. This study reviewed students' perceptions of college and career readiness by collecting data to answer the following research questions: (a) how and in what ways does implementing an ePortfolio with a reflection on transferable skills in a high school English language arts classroom impact students' perceptions of college and career readiness, (b) how does implementing an ePortfolio with a reflection on transferable skills impact student engagement in a high school English language arts classroom, and (c) what are students' perceptions about using an ePortfolio with a reflection on transferable skills in a high school ELA classroom.

Research Design

As a researcher, my purpose was to investigate how the use of ePortfolios with a reflection on transferable skills in an English language arts classroom can affect learning

experiences for students. Action research can be considered a reflective form of teaching that helps educators collect data on instructional issues with the end goal of making more effective changes to benefit everyone involved (Elliott, 1991; Holly, Arhar, & Kasten, 2009). During this action research project, I was actively participating in finding effective strategies to improve my teaching, and consequently, also enhancing student learning (Mertler, 2017).

Action research can be simply defined as the procedure of systematic inquiry to collect data about teaching and learning (Mertens, 2009; Mills, 2011). The action research model, as opposed to any other design, was the most effective choice of study because, in action research, teachers serve as the primary researcher while simultaneously retaining their educator status (Creswell, 2007; Elliott, 1991). More specifically, action research is a systematic and reflective inquest made by educators to have a deeper understanding of an educational issue that is distinctive in terms of grade level, academic content, and other factors (Hole & McEntree, 1999; Mertler, 2017). Implementing an ePortfolio with a reflection on transferable skills was a suitable innovation for high school students in context to their perceptions of college and career readiness. Furthermore, action research was an appropriate choice since, prior, there was very little literature to review on reflective ePortfolios with a focus on transferable skills. Researchers assert that teachers who conduct action research not only improve their practice and their peers' practices, but they produce valuable data that is sparse in current literature (Reason & Bradbury, 2008).

Mertler (2017) has also stressed that action research is unlike other research methodologies that involve systematic inquiry; action research includes specific steps: (a)

observation, (b) collection/synthesis of data, and, of course, (c) action. When conducting these action research steps, the focus was not necessarily on finding generalizable results for all educators around the world; instead, the primary focus was to solve a problem that I saw within my local school setting (Fraenkel, Wallen, & Hyun, 2012). Even if my study does not entirely solve the issue within my action research project, at the very least, I will have more information on strategies that may improve student learning and my instruction.

Furthermore, I shared my findings with relevant stakeholders at the high school research site. To collect and synthesize the data from my classroom to share with local stakeholders at my school, I implemented both quantitative and qualitative measures, a mixed methods research model. Explicitly, a convergent parallel mixed-methods approach (Creswell, 2013) allowed me to collect both qualitative and quantitative data throughout my research period. Through surveys, interviews, and ePortfolio reflections, I have both qualitative and quantitative data to ensure that the triangulated results of the innovation were as accurate and credible as possible (Creswell, 2013; Mertler, 2017).

Setting and Participants

This study took place at an urban public high school located in northeast Georgia. The research site is one of nine high schools in its district, serving students in grades nine through 12. For this study, I focused on one general education class of English language arts, which is a daily 45-minute class, from 12:55 pm to 1:40 pm, taught only by me. The world literature class is a time of instruction that helps students become familiar with a wide range of literary forms, themes, cultures, and periods while developing a proficiency in the use of grammar and mechanics in their compositions.

As the instructor in this classroom and in my tenth year of being a high school educator, I had already completed a Bachelor's Degree in English, a Master's Degree in English Education, and a Specialist Degree in Teacher Leadership. Additionally, I obtained a reading endorsement, an online teaching certification, and English to speakers of other languages (ESOL) certification. During this study, I took on the role of a participant observer (Mertler, 2017). While I was always in the role of a researcher, I spent most of my time leading instruction within my classroom.

Within this 10th-grade world literature class, there were a total of 20 students who voluntarily participated in this study. Students and their parents received information about this study so that they could decide if they would allow students' work to be part of this data collection. Students were permitted to leave the study at any time with no effect on their coursework. Ethnicities and genders varied between white, black, and Hispanic. Twenty-five percent of the students in this class were considered economically disadvantaged. All the students in this literature course completed three previous literature courses as a prerequisite to be enrolled in a world literature class. While there were only minor discipline problems within the larger student body, none of the students in this class had a disciplinary record.

Before this study, technology was already a part of regular instruction as students used computers to learn and complete class assignments on a regular weekly basis. There were 20 Chromebooks housed inside the classroom. Students were familiar with Google Applications for education as these applications were commonly used during daily instruction in my class and many peers' classrooms as well. During the intervention, student-participants created reflective ePortfolios on Google Sites and received surveys

on Google Forms, and some students participated in interviews. Based on student availability, interviews occurred in my classroom during the students' study hall period, known as enrichment. A total of five students were interviewed until data saturation occurred.

Innovation

Previous research surmised that high school students did not feel college and career ready and did not find relevance in most assignments within their high school courses (YouthTruth, 2017). Since ePortfolios support reflection (Kahn, 2014; Ittelson, 2001; Lorenzo & Ittelson, 2005), this reflective ePortfolio innovation has the potential to help students discover the value in coursework through reflection on transferable skills that are used within assignments and that are also needed to be successful in college or a career. Furthermore, because ePortfolios have yielded positive experiences and learning outcomes in many studies and are known to serve purposes after high school (Miller & Morgan, 2009), an ePortfolio with a reflection on transferable skills was employed for this intervention.

ePortfolio with Reflection on Transferable Skills

At the beginning of the four-week intervention period, students participated in a lesson and activity in which they examined transferable skills and their future career interests. Additionally, students created an e-Portfolio in which they listed their personal career interests and skills needed to be successful in that career field. Similar to standard ELA assignments that were completed before the intervention (see Appendices E, F, G, & H), students then completed four standard ELA classroom assignments (see Appendices I, J, K, & L) that they uploaded as artifacts within their ePortfolios.

Specifically, under each ePortfolio artifact, students typed reflections on the use of transferable skills within each assignment (see Appendices S, T, U, & V), and students explained the relevance of those skills in terms of helping them to be successful in their future goals.

As students wrote their reflections on transferable skills, they followed guided reflection steps (see Appendix Q) to compose their reflections as they considered which skills were used in each assignment and how those skills connected to their futures. With all four assignments, a predictable class structure ensured uniformity within students' reflections as students had an entire class period to upload their completed assignment to the ePortfolio; they also used this class time to write a reflection on the transferable skills that they used within the assignment with commentary on how those skills could help them be successful in the future.

Specifically, the ePortfolio intervention included a (a) specific purpose, (b) connection to course content, (c) scaffolding instruction, and (d) designated amount of time. In Table 3.1, each section of the ePortfolio intervention is explained in detail with the expectations of the researcher and student.

Table 3.1 *ePortfolio Alignment*

ePortfolio Intervention	Researcher	Expectation	Student
Specific purpose	<ul style="list-style-type: none"> • Explain Purpose 		<ul style="list-style-type: none"> • Create ePortfolio purpose statement (See Appendix N)
Scaffold Instruction (technology, transferable skills, & reflection) with designated time	<ul style="list-style-type: none"> • ePortfolio workshop (Appendix M) • Lesson on transferable skills (Appendix O) 		<ul style="list-style-type: none"> • Create ePortfolio (See Appendix M) • Create Significant Transferable Skills webpage (See Appendix P)

	<ul style="list-style-type: none"> • Lesson on guided reflection on transferable skills (Appendix Q) • Give one class period to upload completed assignment and complete guided reflection 	<ul style="list-style-type: none"> • Create webpage of example artifact with reflection on transferable skills (See Appendix R)
Connection to course content	<ul style="list-style-type: none"> • Administer Intervention Creating a Video Activity 1 (Appendix I) • Administer Intervention Writing a Letter Activity 2 (Appendix J) • Administer Intervention Creating a Timeline Activity 3 (Appendix K) • Administer Intervention Writing a Narrative Activity 4 (Appendix L) 	<ul style="list-style-type: none"> • Intervention Creating a Video Activity 1 Reflection (Appendix S) • Intervention Writing a Letter Activity 2 Reflection (Appendix T) • Intervention Creating a Timeline Activity 3 Reflection (Appendix U) • Intervention Writing a Narrative Activity 4 Reflection (Appendix V)

Specific purpose. As seen in Table 3.1, students have a particular purpose when using the ePortfolio intervention: to uncover transferable skills that are used within the course activities to see how those skills will help them in the future. Students will follow a guided reflection (see Appendix Q) on transferable skills to complete their reflection on transferable skills for each of the four activities during the intervention.

Connection to course content. The ePortfolio housed four creative writing activities that were a part of students’ regular coursework in their ELA units. After each assignment was uploaded to the ePortfolio, students reflected on various transferable skills (see Appendix R) used within each artifact. As Table 3.2 illustrates, each of the activities connected to ELA course content and learning targets, and each of the activities

also allowed students to incite numerous transferable skills that they could reflect on within their ePortfolio.

Table 3.2 *State Standards Aligned to Student Activity and Reflection*

State Standard	Activity	Student Reflection Example
ELAGSE9-10W2: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	<ul style="list-style-type: none"> PSA Video Project (Appendix I) 	<ul style="list-style-type: none"> Reflection on Intervention Creating a Video Activity 1 (Appendix S)
ELAGSE9-10L1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	<ul style="list-style-type: none"> Informal vs. Formal Writing (Appendix J) 	<ul style="list-style-type: none"> Reflection on Intervention Writing a Letter Activity 2 (Appendix T)
ELAGSE9-10W9: Draw evidence from literary or informational texts to support analysis, reflection, and research.	<ul style="list-style-type: none"> Timeline of Your Life (Appendix G) 	<ul style="list-style-type: none"> Reflection on Intervention Creating a Timeline Activity 3 (Appendix U)
ELAGSE9-10W3: Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	<ul style="list-style-type: none"> Writing a Narrative (Appendix H) 	<ul style="list-style-type: none"> Reflection on Intervention Writing a Narrative Activity 4 (Appendix V)

Each week, students completed one standard ELA activity; by the end of the four-week intervention, students completed Intervention Video Activity 1 (Appendix I), Intervention Writing Activity 2 (Appendix J), Intervention Timeline Activity 3 (Appendix K), and Intervention Narrative Activity 4 (Appendix L). After completing each assignment each

week, students uploaded each completed activity to their ePortfolio so that they could review their work and reflect on any transferable skills used within the task. The goal was for the students to be able to understand the connection between the transferable skills used within classwork and the transferable skills needed to help them achieve their future aspirations.

Intervention video activity 1. In Intervention Video Activity 1 (Appendix I), students created a written script concerning their personal beliefs about the perils of society's indifference and desensitization towards injustices in the world, in relation to the course content of *Night*. The learning target was to produce clear and coherent writing, which was appropriate to this writing task, purpose, and audience. As seen in Figure 3.1, Student 1, whose goal was to work in customer service, created a script for her public service announcement about the dangers of showing indifference.

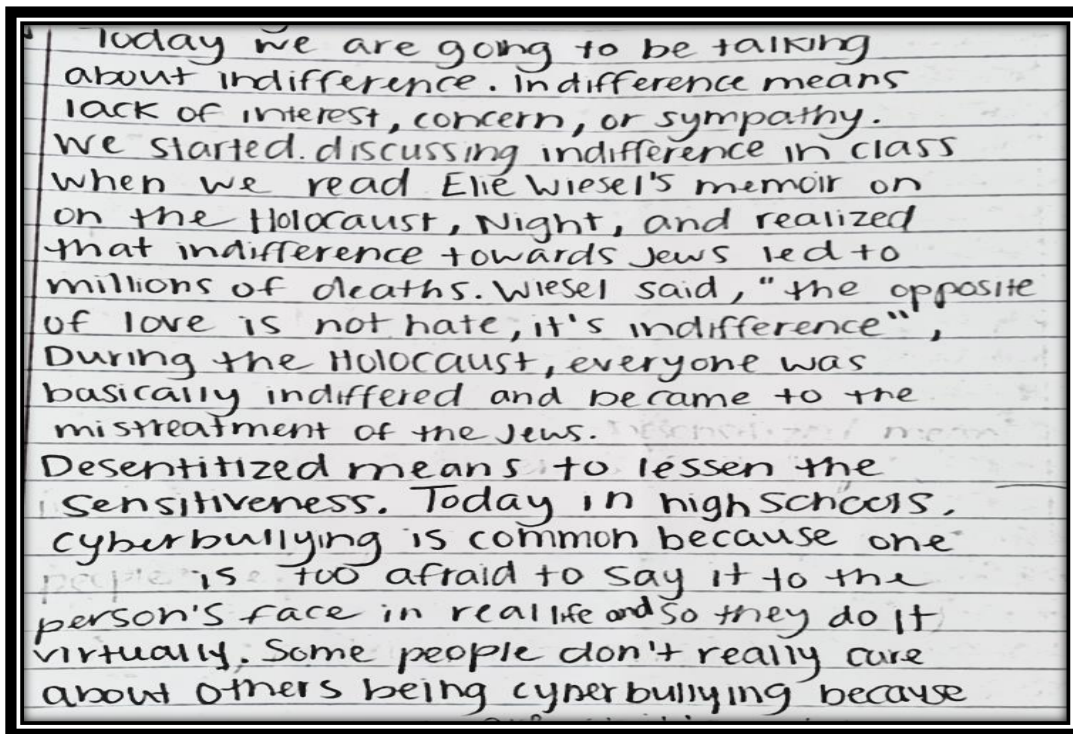
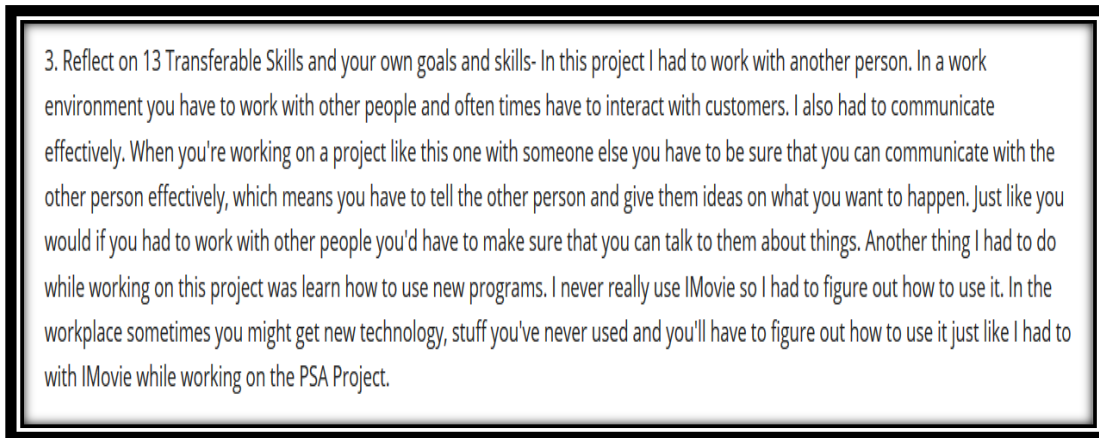


Figure 3.1 Example of Intervention Creating a Video Activity 1 (Student 1)

Once students uploaded Intervention Video Activity 1 into their ePortfolio, they then reflected on which transferable skills were used within the assignment. Figure 3.2 illustrates an example of a student reflection.



3. Reflect on 13 Transferable Skills and your own goals and skills- In this project I had to work with another person. In a work environment you have to work with other people and often times have to interact with customers. I also had to communicate effectively. When you're working on a project like this one with someone else you have to be sure that you can communicate with the other person effectively, which means you have to tell the other person and give them ideas on what you want to happen. Just like you would if you had to work with other people you'd have to make sure that you can talk to them about things. Another thing I had to do while working on this project was learn how to use new programs. I never really use iMovie so I had to figure out how to use it. In the workplace sometimes you might get new technology, stuff you've never used and you'll have to figure out how to use it just like I had to with iMovie while working on the PSA Project.

Figure 3.2 Example of Reflection on Transferable Skills (Student 1)

Depending on the learner, many of the 13 employer-valued indicators of transferable skills (Bennett, 2002) could be used during the completion of this task, which is seen in Figure 3.2 when Student 1 reflected on using teamwork, communication, and technology skills. Written communication occurred as the students were required to write their script. Verbal communication occurred when the students collaborated with peers. Students also used technology to record a video in which they used their script to share a public service announcement to their peers. When students helped peers with the assignment, they practiced leadership and teamwork skills. For their responses to be coherent, students had to order their thoughts logically. Every learner is different, and many factors lead to students using more, or less, of these 13 transferable skills, or other skills, as they completed this activity and reflected on the benefits of practicing and learning transferable skills.

Intervention writing activity 2. In Intervention Writing Activity 2 (Appendix J), students wrote a formal and an informal message to their principal and parents, respectively. The learning target was to demonstrate proper use of the English language in context to grammar content in the ELA classroom. An example of Student 4's work can be seen below in Figure 3.3.

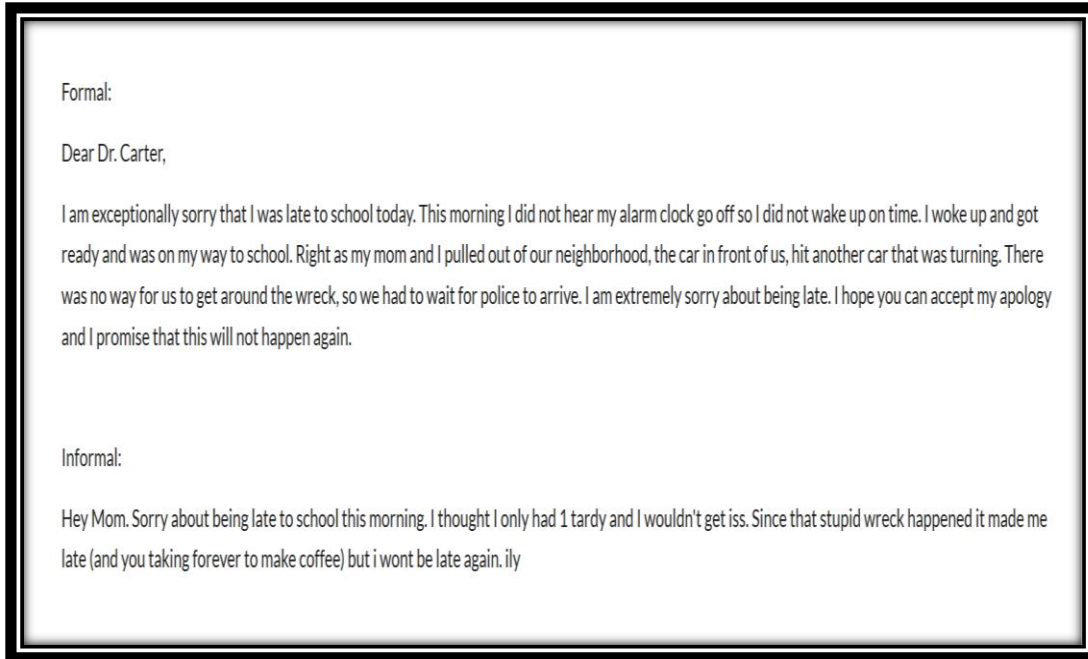


Figure 3.3 Example of Intervention Writing a Letter Activity 2 (Student 4)

Once again, to complete this task, students had to utilize transferable skills. The most apparent transferable skill required was communication. Potentially, students could practice all of Bennett's (2002) list of 13 transferable skills when completing this assignment, and Student 4, whose ambition was to be a psychologist, reflected on the transferable skills that she used when creating these messages, as seen in Figure 3.4 below.

3. For this assignment I used many skills that will help me in the future. I used communication because I had to write an email and a text to the principal and my mom. I also used flexibility because I had to go out my comfort zone and write formally, Another skill I used was critical thinking. I had to quickly come up with a professional email to send to my principal without it sounding childish and effortless. These skills can help me in the future because I will have to be quick on my feet as an adult and overcome obstacles. I will also have to be flexible with people in a work space because not every person is the same.

Figure 3.4 Example of Reflection on Intervention Writing Activity 2 (Student 4)

Verbal communication happened when the student asked the teacher or peers questions. Students practiced leadership skills if they assisted others in the class. For their writing to be coherent, students had to have organization within their messages, and students had to be able to decipher and switch between formal language to their principal and informal style to their parent. Again, since every learner is different, some students used more, or less, of these transferable skills as they reflected on the future benefits of practicing these skills within their high school assignments.

Intervention timeline activity 3. In Intervention Timeline Activity 3 (Appendix K), students created a timeline to reflect the most significant events in their lives in context to the stories that they read in the book, *An Island Like You*. An example can be seen below in Figure 3.5 by Student 3.

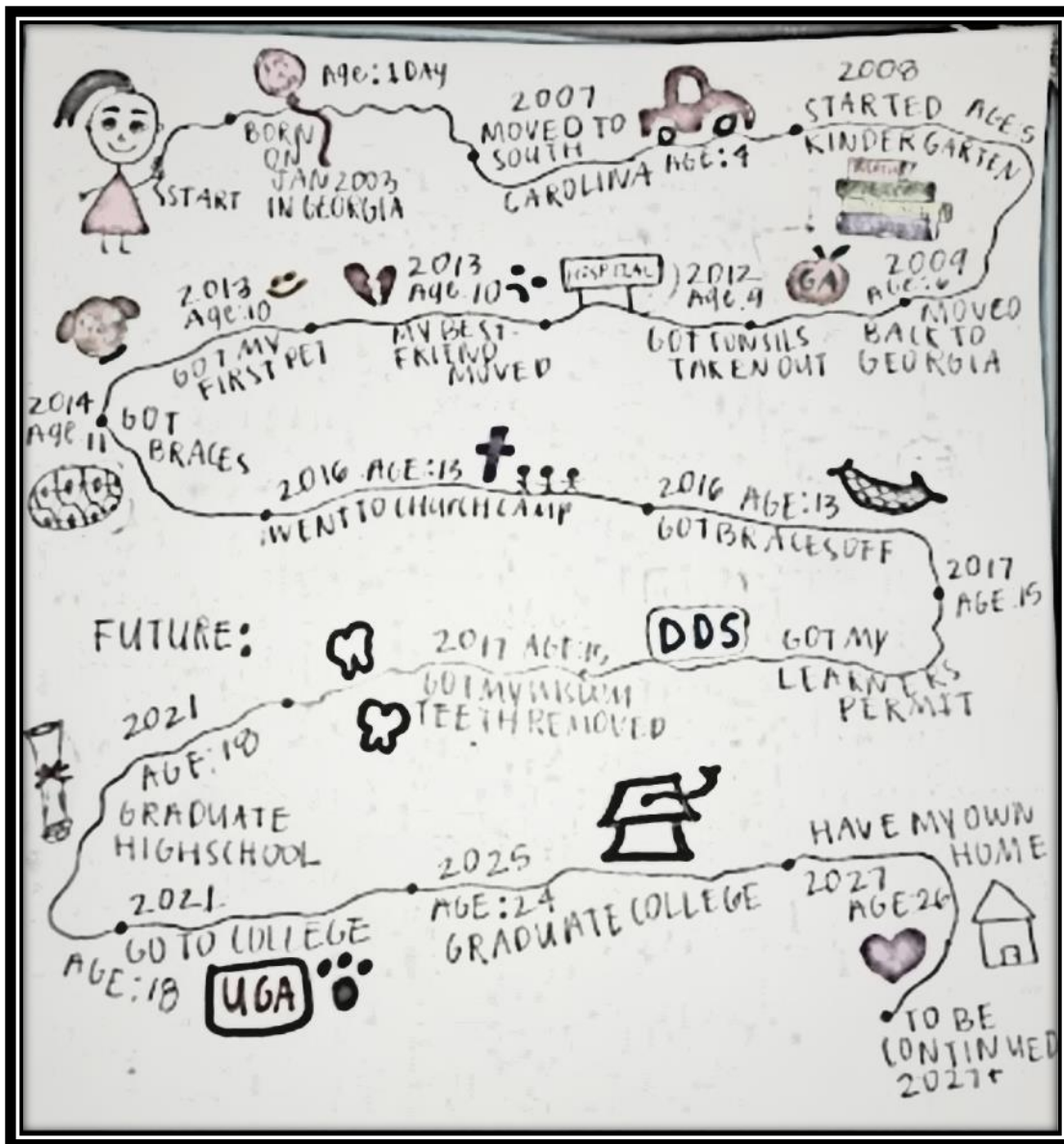


Figure 3.5 Example of Intervention Creating a Timeline Activity 3 (Student 3)

The learning target included analyzing and reflection, and to complete this task, students had to practice many transferable skills. In figure 3.6 below, Student 3, whose ambition is to be an interior designer, reflected on her timeline and on the transferable skills that she used when creating this assignment.

(3) I used a lot of transferable skills as I completed this assignment. Of the 13 major transferable skills, I used, communication (I used this skill by communicating with my teacher in order to confirm I was completing the assignment correctly), initiative (I took initiative while completing this assignment because I wanted to do a good job), IT (I used technology to get inspiration from other Life Maps to create mine), motivation (I was very motivated to do this assignment because I felt this would be a great way to be creative), organization (I was very organized in this assignment because I made my Life Map neat and easy to read), self-confidence (I had self-confidence in this assignment as I was confident in my creative aspect). I was able to be creative, plan, vision, and multitask in this assignment as all of these skills will be used in my future career as an interior designer.

Figure 3.6 Example of Reflection on Intervention Timeline Activity 3 (Student 3)

When creating the timeline, students could hone all 13 significant skills; every student had to analyze their life to decide on which events were the most important to notate in their timeline. Furthermore, at a minimum to complete the task successfully, students also had to organize the most significant events into chronological order. Students were able to reflect on the significance of the skills in relation to their future goals.

Intervention narrative activity 4. In Intervention Narrative Activity 4 (Appendix H), students created a narrative about a character from their book, *An Island Like You*. The learning target was to write a narrative in which a student could develop fictional or non-fictional experiences in an organized and coherent manner, as described in Figure 3.7 by Student 20 below.

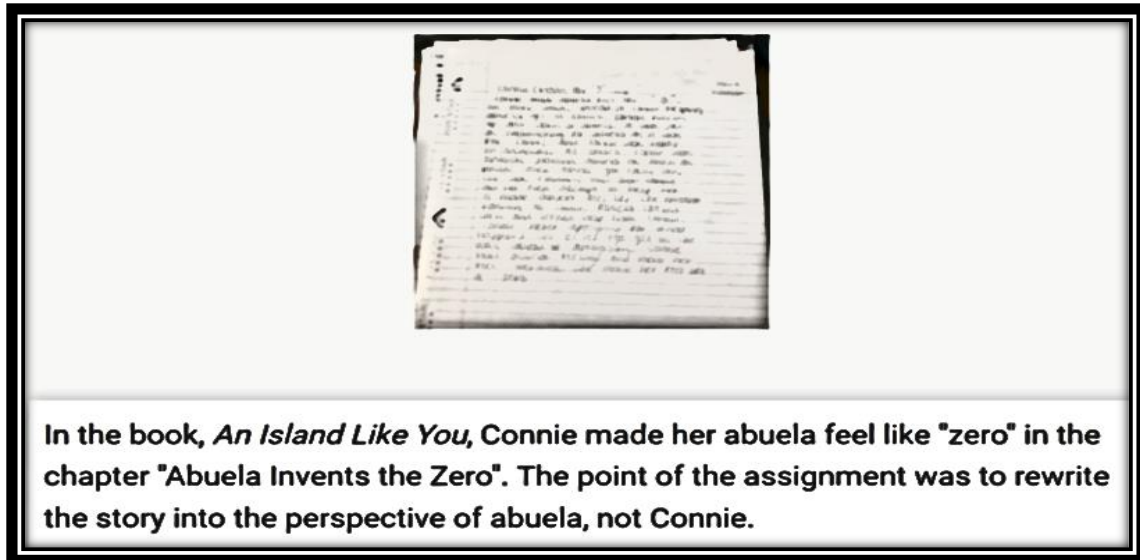


Figure 3.7 Example of Intervention Writing a Narrative Activity 4 (Student 20)

Once again, depending on the learner, many of the 13 employer-valued transferable skills could be used during the completion of this task. In Figure 3.8 below, Student 20, whose career aim was to be a pharmacist, reflected on the transferable skills that she used to write her story.

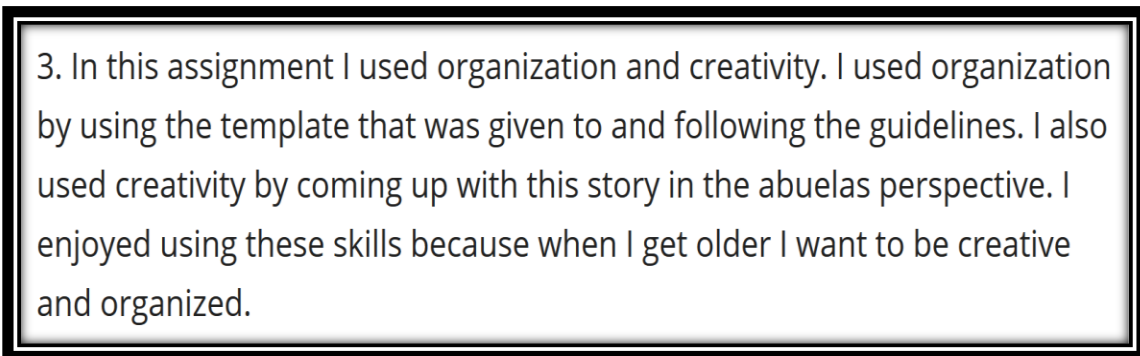


Figure 3.8 Example of Reflection on Intervention Narrative Activity 4 (Student 20)

When completing Intervention Narrative Activity 4, students employed many transferable skills like analysis, written communication, verbal communication, student initiative, and motivation, among other skills that will help them reach their particular goals in the future.

Scaffold instruction. The ePortfolio intervention included instruction in the following contexts: (a) technology, (b) transferable skills, and (c) reflection on transferable skills.

Technology instruction. During technology instruction, I implemented the ePortfolio workshop plan (Appendix M) in two class periods for a total of 90 minutes of technology instruction. By the end of the workshop, students could (a) define ePortfolio, (b) create an ePortfolio on Google Sites, (c) reflect on transferable skills within the ePortfolio, and (d) access additional help via tutorials. The first 15 minutes of the workshop gave students introductory information on portfolios and ePortfolios. For the remaining 75 minutes, students watched and participated in an interactive demonstration of the ePortfolio that included: (a) creation of the ePortfolio, (b) examples, (c) overviews, (d) practice, and (e) additional help. Students followed along, step-by-step, to create their personalized ePortfolio. Students followed along step-by-step as the instructor created an ePortfolio that was projected on the big screen in the classroom. Additionally, an example of an ePortfolio was shown to students to model the expectations of the ePortfolio. Students were also given an overview of the ePortfolio with a reflection on transferable skills. During this class time, students were able to practice using various features of Google Sites. Lastly, any student who needed additional help was given extra resources to help him navigate the technology aspect of the ePortfolio intervention.

Transferable skills. Next, during the ePortfolio workshop, students participated in a lesson on transferable skills (See Appendix O). Students received a 45-minute lesson on transferable skills, which included a mini goal-setting activity during one class period. Students were given time to research transferable skills and, specifically, the transferable

skills that were necessary to be successful in achieving their future goals. By the end of the lesson, students knew: (a) definitions of transferable skills, (b) examples of transferable skills, (c) transferable skills that pertain to their future goals, and (d) how to add a page of personalized significant transferable skills (See Appendix P) to their ePortfolio.

The lesson began by defining transferable skills for students. Next, the class discussed the significance of transferable skills. Students specifically learned about Bennett's (2002) 13 indicators of employability skills (Appendix O). To make the lesson more personal to the students' personal interests, the students then explored further transferable skills by clicking on interactive links that categorized skills by careers. Students located the jobs that interested them and reviewed the skills necessary to be successful in particular career fields. After compiling a list of skills that pertained to their future goals, students created a Google Site page within their ePortfolio to display those skills and the Bennett's (2002) 13 skills that were discussed during the lesson. This transferable skills page within their ePortfolio (see Appendix P), related to their future goals and was used as an easy reference for students as they reflected on transferable skills that were used within their ELA assignments over the four-week intervention period. Additional resources were also available to students who needed further information on transferable skills.

Reflection on transferable skills. Students also spent one 45-minute class period receiving instruction on using the ePortfolio to reflect on transferable skills within their various ELA assignments thoroughly. Students completed a mini-activity to ensure that they understand the reflection process. By the end of the lesson, students knew (a) the

steps of the guided reflection and (b) the process to upload a completed assignment with a reflection within the ePortfolio. First, students learned about the example artifact and the accompanying reflection on transferable skills. Next, students created a Google Sites page entitled *Example ePortfolio Artifact with Reflection on Transferable Skills* (Appendix R). After the teacher gave an example of a completed ELA assignment, students uploaded the example assignment to ensure that they knew how to upload their future assignments. Next, students typed up the example reflection on transferable skills used within the example assignment, to ensure that students understood the reflection process and also that they knew how to use the technology to type and publish their reflections within the ePortfolio.

Designated amount of time. Lastly, as seen in Table 3.1, ePortfolio participants had a designated amount of time in which they could upload and reflect on their ELA assignment and transferable skills. During the intervention, students received one 45-minute class period per activity to upload their completed assignments. Within that 45 minutes, students also had to be able to reflect on the assignment and type of their thoughts on how they used transferable skills to complete the ELA activity and how those skills used related to their future aspirations to go to college and start a career. This amount of time, an entire class period, ensured that students were not rushed while completing the technical aspects of the reflection nor while they were contemplating their experiences with transferable skills. Students had ample time to complete the technical aspects of the ePortfolio and the reflection on transferable skills within this 45-minute timeframe. During these class periods, while monitoring the students, the teacher also provided verbal feedback throughout the intervention process as needed.

Data Collection Methods

Since this action research implemented student reflections on transferable skills within personalized ePortfolios, this study collected data to represent the effects of the reflective ePortfolio. Several methods, including ePortfolio reflections and student interviews, were used to collect the qualitative data, and surveys were used to collect quantitative data. Each of these methods directly correlated to the three research questions concerning students' perceptions of college and career readiness, engagement, and experiences using the ePortfolio. Table 3.3 shows the alignment between the three research questions and the five data sources; the data sources are further described below.

Table 3.3 *Data Source Alignment*

Research Questions	Sources of Data	
	<i>Qualitative</i>	<i>Quantitative</i>
RQ1. How and in what ways does implementing an ePortfolio with reflection on transferable skills in a high school English language arts classroom impact students' perceptions of college and career readiness?	Interviews (Appendix D) Students' reflections on transferable skills within ePortfolio (see Appendices S, T, U, & V)	College and Career Readiness Scale (Appendix A)
RQ2. How does implementing an ePortfolio with reflection on transferable skills impact student engagement in a high school English language arts classroom?	Interviews (Appendix D) Students' reflections on transferable skills within ePortfolio (see Appendices S, T, U, & V)	Student Engagement Questionnaire (Appendix B)
RQ3. What are students' perceptions about using an ePortfolio with a reflection on transferable skills in a high school English language arts classroom?	Interviews (Appendix D) Students' reflections on transferable skills within ePortfolio (see Appendices S, T, U, & V)	ePortfolio Experience Survey (Appendix C)

Surveys

To collect students' perspectives, surveys that consisted of a series of statements and corresponding Likert-type responses were given to all participants. Surveys were an appropriate choice in this action research project because this study focused on students' perceptions, and surveys provided profound insight into students' viewpoints (Holly, Arhar, & Kasten, 2009). In this study, three perception surveys gauged students' views on the following: (a) college and career readiness (see Appendix A), (b) engagement (see Appendix B), and (c) experience with the ePortfolio intervention (see Appendix C). All participants remained anonymous, but to ensure that students' responses correlated between the first and second implementations of the surveys, a unique identification number was given to each student for survey-taking.

College and career readiness survey. When speaking of being college and career ready, transferable skills are often at the forefront of the discussion. For students to perceive themselves as college and career ready, they must be confident that they have developed essential skills from their education. The researcher created the College and Career Readiness Scale (see Appendix A), a self-report measure of students' preparedness for college or future careers, which was based on 13 significant transferable skills needed to be successful after high school (Bennett, 2002). As a tool to evaluate high school students' perceptions, the survey consisted of 14 items comprised of statements like "I can communicate well face-to-face in front of a group of people" to indicate presentation skills and "when something does not go as expected, I can find another way to complete the task" to show the skill of problem-solving. In response to the seven statements, students rated their perceptions on a scale of 1 (Strongly disagree), 2 (Disagree), 3

(Neutral), 4 (Agree), and 5 (Strongly Agree). The College and Career Readiness Scale was administered online via Google Forms and aligned to research question one (see Table 3.2). This survey provides targeted data on skills needed to be successful in college or a career. It specifically focuses on students' perceptions of college and career readiness in terms of each of Bennett's (2002) 13 skills so that the students' scores produce relevant findings of high school students' perception of college and career readiness. Participants anonymously completed the survey before the intervention and again after the intervention. The results provided valuable information about students' perceptions of being college and career ready.

Student engagement questionnaire. Reeve and Tseng (2011) created the Student Engagement Questionnaire (see Appendix B), a self-report measure of students' engagement in class. The survey was designed for students, and it consisted of four subscales of engagement: (a) agentic (5 items), (b) behavioral (5 items), (c) emotional (4 items), and (d) cognitive (8 items). Initially having a total of 22 items, this questionnaire was adapted for this study to target engagement in the English language arts classroom; it was lessened to 11 questions for this study. The survey asked students to rate statements like, "When we work on something in class, I feel interested" (emotional engagement), and "During class, I ask questions" (agentic engagement) (Reeve & Tseng, 2011, p. 2). In response to the statements on engagement, students can rate their perceptions on a scale of 1 (Strongly disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly Agree).

The Student Engagement Questionnaire was administered online via Google Forms and aligned to research question two (see Table 3.2). The engagement survey provided targeted data on students' perceptions of engagement in class. The Student

Engagement Questionnaire has been successfully utilized in studies and showed high internal reliability ($\alpha = .88$) (Reeve, 2011). To use the instrument to measure outcomes for research question two, participants anonymously completed the survey before the intervention and again after the intervention. The results provided valuable information about students' perceptions towards engagement since students' reactions to the ePortfolio varied behaviorally, emotionally, cognitively, and agentially.

ePortfolio experience survey. While there was not an accessible ePortfolio experience survey in previous research, a more general experience survey, the Student Experience Survey (SES) (2016), was reviewed as it was created for Australian college students to express their perceptions of course experiences. The SES (2016) was a self-report measure to describe students' experiences in a course and was created in partnership with the Australian Government Department of Education and Training with national validation across various higher education institutions.

Informed from the SES, I created the ePortfolio Experience Survey (see Appendix C), which was intended for high school students to measure their experience with the ePortfolio intervention; it consisted of statements that helped the students describe their experiences with the ePortfolio intervention. With a total of 13 items, the survey asked students to rate comments like, "The use of the ePortfolio led to more personalized learning" and "The ePortfolio workshop was a useful learning experience" (see Appendix C). In response to these statements, students rated their perceptions on a scale of 1 (Strongly disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly Agree). The ePortfolio Experience Survey was administered online and aligned to research question three (see Table 3.2). The survey provided targeted data of students' perceptions of their

experiences using the ePortfolio intervention in class. To use the instrument to measure outcomes for research question three, participants anonymously completed the survey after the intervention. Additionally, demographic information was collected to obtain the age, sex, and ethnicity of participants.

Interviews

Interviews were an organized way of listening and talking to people so that the interviewer could collect data and gain knowledge (Kvale, 1996). Thus, the Student Interview Questions (see Appendix D) gathered data on all three research questions (Table 3.2). In this action research plan, interviews were an appropriate method to collect data since students described meanings and gave detailed stories behind their experiences (Kvale, 1996). The interviews aimed to acquire genuine responses from participants; all questions were semi-structured and open-ended to collect qualitative data.

The interview questions had multiple probes for each question; these questions focused on students' perceptions of (a) career and college readiness, (b) engagement, and (c) ePortfolio experience. Questions included, "How did you feel about using a reflective ePortfolio prior to taking this course?" and "How did your experiences with the reflective ePortfolio impact your participation in class?" Each participant voluntarily gave consent to be interviewed. All interviews were transcribed word-for-word using a digital recording device application. The responses were analyzed, coded, re-coded, categorized, and eventually, themes emerged (Saldaña, 2013; Kvale, 1996).

Student Reflections

After uploading their completed activity to their ePortfolio, students followed the guided reflection steps (see Appendix Q) to help them create thorough reflections on

skills used within each artifact in their ePortfolio. Specifically, step three supports their analysis as it asked students to state any transferable skills, including ones that match their future career goals. Students’ thoughts on their experiences with the reflective ePortfolio helped explain the effects on their learning from the reflective ePortfolio innovation.

Data Analysis

Including both qualitative and quantitative data, mixed methods research combines both types of data to obtain more meaningful results than just using only one type of data (Creswell & Plano Clark, 2007). The qualitative data within each research question further elucidated the quantitative data within each research question as an explanatory mixed methods design (Creswell, 2013). Table 3.4 below displays the research questions with the correlating data sources and methods of analysis. To legitimize the results of the data, both quantitative and qualitative data were collected and triangulated (Creswell, 2013; Mertler, 2017). Full data analysis description is provided in chapter four.

Table 3.4 *Data Sources and Analysis Alignment*

Research Question	Data Source	Analysis
RQ1. How and in what ways does implementing a reflective ePortfolio in a high school English language arts classroom impact students' perceptions of college and career readiness?	<ul style="list-style-type: none"> • College and Career Readiness Scale (Appendix A) • Student Interviews (Appendix D) • ePortfolio reflections (Appendices S, T, U, & V) 	<ul style="list-style-type: none"> • Descriptive statistics • Paired <i>t</i>-test • Inductive Analysis

<p>RQ2. How does implementing a reflective ePortfolio impact student engagement in a high school English language arts classroom?</p>	<ul style="list-style-type: none"> • Student Engagement Questionnaire (Appendix B) • Student Interviews (Appendix D) • ePortfolio reflections (Appendices S, T, U, & V) 	<ul style="list-style-type: none"> • Descriptive statistics • Wilcoxon Signed Ranks Test • Inductive analysis
<p>RQ3. What are students' perceptions about using a reflective ePortfolio in a high school English language arts classroom?</p>	<ul style="list-style-type: none"> • ePortfolio Experience Survey (Appendix C) • Student Interviews (Appendix D) • ePortfolio reflections (Appendices S, T, U, & V) 	<ul style="list-style-type: none"> • Descriptive Statistics • Inductive Analysis

Procedures and Timeline

The timeline for procedures for this research was organized into the following five phases: (a) preliminary preparation, (b) baseline data and information, (c) intervention, (d) post intervention, and (e) data analysis. Below, there are descriptions of each phase, including expectations from the researcher and expectations from the participants; additionally, the expected time frame is included (Table 3.5).

Table 3.5 *Phases, Expectations, and Time Frame of Study*

Phase	Actions		Time Frame
	Researcher	Participants	
Phase 1: Preliminary Preparation	<ul style="list-style-type: none"> • Finalize participant list • Give students/parents information on study 	<ul style="list-style-type: none"> • Notify teacher if not allowing data to be used in research 	1 week
Phase 2: Baseline information	<ul style="list-style-type: none"> • Regular instruction • Administer College and Career Readiness Scale (Appendix A) • Administer Student Engagement Questionnaire (Appendix B) 	<ul style="list-style-type: none"> • Participate in instruction and complete Pre intervention activities (see Appendices E, F, G, & H) • Complete College and Career Readiness Scale (Appendix A) • Complete Student Engagement Questionnaire (Appendix B) 	4 weeks
Phase 3: Intervention Phase 3 (continued)	<ul style="list-style-type: none"> • ePortfolio Workshop (Appendix M) • Transferable skills lesson (Appendix M) • Guided-Reflection Lesson (See Appendix Q) • Assign Intervention Activities 1, 2, 3, & 4 (Appendices I, J, K, & L) 	<ul style="list-style-type: none"> • Create ePortfolio (Appendix M) • Create Transferable Skills Goals page in ePortfolio (Appendix P) • Create Example Artifact with Reflection ePortfolio Page (Appendix R) • Complete Intervention activities 1, 2, 3, & 4 in ePortfolio with reflection (Appendices I, J, K, & L) 	4 weeks
Phase 4: Post Intervention	<ul style="list-style-type: none"> • Administer College and Career Readiness Scale (Appendix A) • Administer Student Engagement Questionnaire (Appendix B) • Administer ePortfolio Experience Survey (Appendix C) 	<ul style="list-style-type: none"> • Complete College and Career Readiness Scale (Appendix A) • Complete Student Engagement Questionnaire (Appendix B) • Complete ePortfolio Experience Survey (Appendix C) 	2 weeks

	<ul style="list-style-type: none"> • Conduct student interviews (Appendix D) 	<ul style="list-style-type: none"> • Participate in interviews (Appendix D) 	
Phase 5: Data Analysis	<ul style="list-style-type: none"> • Paired <i>t</i>-test and Descriptive Statistics on Career and College Readiness Scale and Student Engagement Questionnaire • Mean & Descriptive Statistics on ePortfolio Experience Survey • Inductive analysis of student interviews • Inductive analysis of ePortfolio reflection 		4+ weeks

Phase 1: Preliminary Phase

In the preliminary stage, I gained permission from the school and to conduct this study in my fifth-period 10th grade world literature course. All students and parents agreed to allow data to be collected for this study. As seen at the top of Table 3.5, I also finalized my participant list to include only those students currently on my roster.

Phase 2: Baseline Data and Information

Phase 2, as seen in Table 3.5, consisted of baseline data and information. Students underwent regular classroom instruction and activities. During those four weeks, students participated in standard ELA classroom instruction and standard ELA activities (see Appendices E, F, G, & H). These four pre intervention activities mirrored the four intervention activities (see Appendices I, J, K, & L) in terms of learning targets and the structure of the assignment. Students completed these pre intervention ELA assignments to ensure that students had the same opportunities to employ various skills during

instruction prior to the intervention. During the fourth week, students also took the Career and College Readiness Scale (see Appendix A) and the Student Engagement Questionnaire (see Appendix B) to give baseline information for the quantitative data.

Phase 3: Intervention

During stage three, students received their regular instruction in context to the memoir, *Night*, and the novella, *An Island Like You*, and they also started using their ePortfolios to upload their completed assignments with a reflection on transferable skills. During the first week of the intervention, the first two days consisted of scaffold instruction to guide students through the process of creating their ePortfolios (see Appendix M) on Google Sites. Students followed along on their computers, and step-by-step, they created their ePortfolio (see Appendix M).

The next day of instruction consisted of a scaffolding lesson on transferable skills (see Appendix O), and students learned about transferable skills in context to objectives, purpose, and significance. Next, students completed an activity in which they explored various transferable skills and were able to easily see multiple career fields and skills needed to be successful in each career. Their future ambitions varied greatly. Participants reported that they hoped to become a customer service representative (Student 1), a computer programmer (Student 2), an interior designer (Student 3), a psychologist (Student 4), a doctor (Student 5), an automotive mechanic (Student 6), a lawyer (Student 7), a chef (Student 8), a flight attendant (Student 9), a pilot (Student 10), a police officer (Student 11), a music producer (Student 12), a nurse (Student 13), an occupational therapist (Student 14), a physical therapist (Student 15), a media specialist (Student 16), a

surgeon (Student 17), a financial advisor (Student 18), a film producer (Student 19), and a pharmacist (Student 20).

As students discovered which skills they needed to help them achieve their future college and career goals, students made a list of the skills that they considered to be the most relevant to them. Finally, student-participants created a webpage within their ePortfolio to list their future goals and the transferable skills needed to achieve those goals (see Appendix P). Within their goals and transferable skills webpage, students also noted the 13 significant transferable skills (Bennett, 2002) in addition to the particular transferable skills that they considered significant to their specific college and career goals (see Appendix P).

The following day of instruction consisted of a reflection on the transferable skills lesson (see Appendix Q). Students reviewed and discussed the guided reflection steps to ensure that they understood how to complete future reflections within their ePortfolios. An entire class period was devoted to the lesson on how to reflect on transferable skills because it was a vital part of the ePortfolio intervention. After reviewing and discussing the steps to create a thorough reflection on transferable skills used when completing classwork, students had plenty of opportunities to ask questions and review additional resources.

Lastly, to confirm that students understood how to analyze the skills that they used to complete an ELA assignment and how to reflect on the significance of the transferable skills to their future, students viewed an example webpage that consisted of a completed ELA assignment with a reflection on transferable skills (see Appendix R). Not only did students review and discuss this modeled reflection of an ePortfolio artifact with

a reflection on transferable skills, but students practiced the technology aspects of the ePortfolio intervention by taking a screenshot of the assignment, uploading it to their ePortfolio, and typing up a reflection based on the example (see Appendix R). These steps, while many, were necessary as they affirmed that student-participants understood how to use the reflective ePortfolio.

Over the next weeks, students completed four standard ELA activities, which included Intervention Video Activity 1 (see Appendix I), Intervention Writing Activity 2 (see Appendix J), Intervention Timeline Activity 3 (see Appendix K), and Intervention Narrative Activity 4 (see Appendix L), and they completed a reflection on transferable skills for each activity as well. During this reflective ePortfolio intervention phase, students had a designated class period after completing each activity in which they uploaded their completed assignment as an ePortfolio artifact and reflected on the significance of the transferable skills that they used when completing that assignment. Students could reference their personalized goals and transferable skills webpage (see Appendix P) and the example ePortfolio artifact with the reflection webpage (see Appendix R) as needed when working in their ePortfolios.

Phase 4: Post Intervention

In Phase 4, as shown in Table 3.5, all 20 students returned to the classroom during their enrichment periods to take the second round of the Career and College Readiness Scale (see Appendix A) and the Student Engagement Questionnaire (see Appendix B). Students also responded to a third survey, the ePortfolio Experience Survey (see Appendix C). After students completed the surveys, some student-participants volunteered to be interviewed. Interviews were based on student availability, as students

had to use their enrichment period to return to the research site classroom to participate in the interviews. While all 20 students completed the surveys, five students were interviewed to give additional information on their experiences during the reflective ePortfolio intervention.

Phase 5: Data Analysis Preparation

As Table 3.5 shows, the last four weeks, and beyond, of the research consisted of analyzing the quantitative and qualitative data. First, the data were prepared for an inductive analysis. The student interviews were transcribed, and ePortfolio reflections were reviewed and compiled into Microsoft Word documents in order to prepare for coding and uploading them into qualitative software. The lengthy coding process began, and through cyclic coding, eventually, themes emerged which aligned to the three research questions.

Lastly, responses to the (pre and post) College and Career Ready Scale (see Appendix A), the (pre and post) Student Engagement Questionnaire (see Appendix B), and the (post) ePortfolio Experience Survey (see Appendix C) had to be reviewed and organized into Microsoft Excel sheets to prepare for further data analysis in quantitative software. Scores from the pre and post Career and College Readiness Scale were analyzed with descriptive and inferential statistics. For the pre and post Student Engagement Survey, there were descriptive statistics and non-parametric tests conducted for each subscale. Finally, the ePortfolio Experience Survey was analyzed with descriptive statistics.

Rigor and Trustworthiness

The qualitative data (student interviews and ePortfolio reflections) were used to support the quantitative data (College and Career Readiness Scale, Student Engagement Questionnaire, & ePortfolio Experience Survey), which improved rigor and trustworthiness within my results because of (a) triangulation, (b) thick, rich descriptions, (c) member checking, (d) peer debriefing, and (e) and audit trail (Mertler, 2017).

Triangulation

Triangulation refers to surveying various types of data to create a consistent rationalization for themes; convergent themes emerged from my multiple data sources, which provided more validity to my study (Creswell, 2013; Maxwell, 2010). In this study, methodological triangulation occurred as the results from the qualitative data triangulated the findings from the quantitative data. Triangulation was supported by having multiple methods of data collection. The findings from all three surveys, ePortfolio reflections, and student interviews served to triangulate the results of each to determine any correlations between the various outcomes.

Thick, Rich Descriptions

According to Guba (1981), using different methods compensates for limitations and exploits the advantages of each source of data; thus, student interviews provided more legitimacy by conveying the experiences and contexts of the investigation (Shenton, 2004). Student interviews provided detailed descriptions that created more accurate and detailed discoveries, particularly concerning student engagement and other various effects of teaching and learning (Creswell, 2013).

Member Checking

To improve the rigor and trustworthiness of this study, member checking was conducted to verify the accuracy of the collected data and, ultimately, the findings of the research (Mertler, 2017). Member checking reduced the chances of misinterpretations of data as participants were able to review the research to see if the researcher genuinely understood the participants' feelings and feedback on the reflective ePortfolio intervention (Creswell, 2013). Lastly, member checked encouraged the sharing of findings with essential stakeholders like students and peers within my school.

Peer Debriefing

Peer debriefing and scrutiny of the research project allowed for a collaborative discussion about the details of the study, which lessened errors and biases and increased viewpoints, enhancing this study (Shenton, 2004). Throughout my research, my peers gave feedback that questioned and, ultimately, improved my work. Additionally, external reviews from my dissertation committee and chair provided multiple perspectives from those with experience and expertise in researching practices and the educational technology field (Creswell, 2013). Throughout my study, my professor was invested in my work and provided an experienced interpretation beyond my perceptions. His constructive criticism, along with my peers' feedback, enhanced the cogency of my study from methodologies to findings (Shenton, 2004).

Audit Trail

The audit trail supported rigor and trustworthiness as the audit trail provided documentation of the development of findings in this study (Mertler, 2017). My audit trail included personal memos in Google documents and Delve memos. Throughout the research period, I used Google documents to store any thoughts and questions that arose

during my research as I implemented the reflective ePortfolio intervention and as I analyzed the results, in particular during the coding process. In the qualitative analysis application, Delve, I was able to create memos about my process of data analysis and coding as well.

Plan for Sharing and Communicating Findings

I shared the findings of my research with various stakeholders. At the local level at my high school, I shared my findings with student-participants. They received feedback throughout the study during their regular ELA classroom discussions. Since participants offered more profound insights into the research results, my participants' input and reflections influenced my thoughts and recommendations for further inquiry. Furthermore, administrators and colleagues also heard the findings of my study. As a part of a professional development leadership group at my school, I presented my findings at our professional development meeting; the ePortfolio innovation is a potential topic for a professional development workshop at my high school.

Additionally, I shared my findings with my dissertation committee to ensure that my study was of high quality. Lastly, students' identities remained anonymous, protecting their confidentiality as participants in the study; students will remain anonymous in any report or publication of this study.

CHAPTER FOUR

FINDINGS AND INTERPRETATIONS

This action research study evaluated the effects of implementing ePortfolios with a reflection on transferable skills in a high school English language arts classroom. The findings from this study provided insights about (a) high school students' experiences with creating ePortfolios for reflection on transferable college and career skills used within assignments, (b) the effects that ePortfolios had on students' engagement, and (c) high school students' perceptions of college and career readiness. This chapter presents the findings from both the quantitative measures (College and Career Readiness Scale, Student Engagement Questionnaire, and ePortfolio Experience Survey) and qualitative measures (student interviews and ePortfolio reflections) to address the following research questions:

1. How and in what ways does implementing an ePortfolio with a reflection on transferable skills in a high school English language arts classroom impact students' perceptions of college and career readiness?
2. How does implementing an ePortfolio with a reflection on transferable skills impact student engagement in a high school English language arts classroom?
3. What are students' perceptions about using an ePortfolio with a reflection on transferable skills in a high school English language arts classroom?

This chapter will present findings in two parts: (1) quantitative results and findings from

College and Career Readiness scale, Student Engagement survey, and ePortfolio Experience survey, and (2) qualitative findings from student interviews and reflections.

Part One: Quantitative Data – Analysis and Findings

Quantitative data were collected from 20 students who participated in the ePortfolio intervention, completing the pre and post surveys for the College and Career Readiness Scale and Student Engagement Questionnaire and the post survey for the ePortfolio Experience Survey. This section is organized by the types of quantitative scales that were administered during this study. The first section presents the results of the College and Career Readiness Scale. Next, the quantitative findings from the Student Engagement Survey are reported, and finally, the results from the ePortfolio Experience Survey are presented.

College and Career Readiness Scale

The College and Career Readiness Scale (Appendix A) gauged students' perceptions of college and career readiness before and after implementing an ePortfolio with a reflection on transferable skills in a high school English language arts classroom. This scale consisted of nine five-point Likert-type statements from (1) strongly disagree to (5) strongly agree. Initially, students completed the survey via Google Forms before the intervention. After the four-week intervention, students completed the scale again. In addition to this scale, students indicated their plans after high school by answering a three-option statement: attending college, starting a career, or neither. All students kept their plans to attend college or to start a career after high school.

Because this scale was developed for this study, there were no previous reports of reliability. Expert reviews established content validity. In addition, reliability coefficients

(Cronbach's alpha) were calculated both for pre survey ($\alpha = .80$) and post survey ($\alpha = .76$) implementations of the scale indicating acceptable reliability scores.

Descriptive statistics. Table 4.1 presents the descriptive statistics for the College and Career Readiness Scale given before and after the intervention. Overall, students' perceptions of being college and career ready increased from pre survey ($M = 3.80$, $SD = 0.52$) to post survey ($M = 4.08$, $SD = 0.37$) showing that after the ePortfolio intervention with a reflection on transferable skills, students perceived high school to prepare them for their future more so than before the intervention.

Table 4.1 *Descriptive Statistics of the College and Career Readiness Scale*

	N	M	Mdn	SD
Post survey Avg	20	4.08	4.0	0.37
Pre survey Avg	20	3.80	3.75	0.52

Inferential statistics. To study changes in students' perceptions of their college and career readiness from pre to post survey, the data were calculated using a paired-samples t-test. The results indicated that the mean post survey score ($M = 4.08$, $SD = 0.37$) was significantly higher than the mean pre survey score ($M = 3.80$, $SD = 0.52$), $t(19) = 4.22$, $p < .001$. The standardized effect size index, d , was .94, indicating a large effect of the intervention on students' perceptions of their college and career readiness. The 95% confidence interval for the mean difference between the pre survey and post survey means was .14 to .42.

Student Engagement Questionnaire

To explore how implementing an ePortfolio with a reflection on transferable skills impacts student engagement in a high school English language arts classroom, the Student Engagement Survey by Reeve and Tseng (2011) was adapted for this study. The

modified version of this survey consisted of 11 items on a 5-point Likert-type scale that ranged from (1) strongly disagree to (5) strongly agree. Questions were divided into four subscales: (a) agentic (2 items), (b) behavioral (3 items), (c) emotional (3 items), and (d) cognitive (3 items). Students completed the survey before and after the four-week reflective ePortfolio intervention.

Because the Student Engagement Survey was adapted for this study, the reliability coefficients (Cronbach's alpha) were calculated for both pre and post implementations of the scale. For the pre survey, the reliability score for the whole instrument was .86. Within each subscale, pre survey scores were .67 for agentic engagement, .84 for behavioral engagement, .79 for cognitive engagement, and .77 for emotional engagement. For the post survey, the reliability score for the whole instrument was observed as .92. Within each subscale, scores were .64 for agentic engagement, .88 for behavioral engagement, .77 for cognitive engagement, and .85 for emotional engagement.

Descriptive statistics. Students' average engagement scores slightly increased from pre survey ($M = 3.32$, $SD = 0.56$) to post survey ($M = 3.54$, $SD = 0.62$) showing that the ePortfolio intervention did encourage student engagement within all four types of subscales. Table 4.2 presents the descriptive statistics for each subscale of the Student Engagement Survey for both pre survey and post survey.

Non-parametric tests. Based on the visual inspection of the Student Engagement Survey scores and the result of the Shapiro-Wilk's Test, the distribution of the post survey data did not meet the normality assumption for a dependent t-test.

Table 4.2 *Descriptive Statistics for Each Subscale of Student Engagement Survey*

	Pre Survey		Post Survey	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Student Engagement Survey				
Composite (11 items total)	3.32	0.56	3.54	0.62
Agentic Engagement (2 items)	2.60	0.87	3.10	0.77
Behavioral Engagement (3 items)	3.77	0.64	3.85	0.73
Cognitive Engagement (3 items)	3.55	0.72	3.87	0.59
Emotional Engagement (3 items)	3.12	0.76	3.20	0.77

Therefore, the non-parametric Wilcoxon Signed Ranks Test compared the pre survey and post survey median scores for the composite engagement scale as well as pre survey and post survey median scores for all four subscales. Since five separate tests were needed for the same set of data, the desired alpha significance level, $\alpha = .05$, was adjusted using the Bonferroni correction. *P*-values less than .01 were considered significant. The first Wilcoxon Signed Ranks Test evaluated whether students' overall engagement changed from pre survey to the post survey. Although the mean of ranks indicating higher post survey scores was higher ($M = 10.73$) than the mean of ranks indicating higher pre survey scores ($M = 5.83$), this difference was not statistically significant, $Z = -1.97$, $p = .05$, at the corrected alpha level ($\alpha = .01$). The second Wilcoxon Signed Ranks Test examined whether students' agentic engagement changed from pre survey to post survey. The results were not statistically significant, $Z = -2.28$, $p = .02$, at the corrected alpha level of .01. The mean of ranks indicating higher agentic engagement post survey scores was 9.73, whereas the mean of ranks indicating higher agentic pre survey scores was 6.13.

The third Wilcoxon Signed Ranks Test examined whether students' behavioral engagement changed from pre survey to post survey. The results were not statistically significant, $Z = -.78$, $p = .44$, at the corrected alpha level of .01. The mean of ranks indicating higher behavioral engagement post survey scores was 5.00, whereas the mean of ranks indicating higher behavioral engagement pre survey scores was 6.67.

The fourth Wilcoxon Signed Ranks Test evaluated whether students' emotional engagement changed from pre survey to post survey. The results were not statistically significant, $Z = -.81$, $p = .42$, at the corrected alpha level of .01. The mean of ranks indicating higher emotional engagement post survey scores was 8.30, whereas the mean of ranks indicating higher emotional engagement pre survey scores was 8.83.

Lastly, the fifth Wilcoxon Signed Ranks Test evaluated whether students' cognitive engagement changed from pre survey to post survey. The results were not statistically significant, $Z = -1.91$, $p = .06$, at the corrected alpha level of .01. The mean of ranks indicating higher emotional engagement post survey scores was 8.71, whereas the mean of ranks indicating higher emotional engagement pre survey scores was 7.88.

ePortfolio Experience Survey

To measure students' perceptions of their experience using the ePortfolio with a reflection on transferable skills in a high school English language arts classroom, a 13-item ePortfolio Experience Survey was administered after the intervention. Students responded to statements on a five-point Likert scale from (1) strongly disagree to (5) strongly agree. Because this scale was developed for this study, there were no previous reports of reliability. The content validity was established through expert reviews. The reliability coefficient (Cronbach's alpha) was observed as .94. This is a reliable score.

Descriptive statistics. Table 4.3 presents the descriptive statistics for the ePortfolio Experience Survey. Overall, students' perceptions of their experience using the ePortfolio were positive ($M = 3.80$, $SD = 0.58$), which indicated that, overall, students perceived the ePortfolio as a helpful learning tool.

Table 4.3 *Descriptive Statistics for the ePortfolio Experience Survey (n = 20)*

	<i>M</i>	<i>SD</i>
The use of the ePortfolio led to more personalized learning.	3.75	0.85
The use of the ePortfolio provided well-structured and focused learning.	3.75	0.79
The use of the ePortfolio was relevant to my education.	3.85	0.81
The use of the ePortfolio helped me learn course content.	3.75	0.79
The use of the ePortfolio included helpful instruction and feedback from my teacher.	3.90	0.72
The use of the ePortfolio enhanced my learning overall.	3.50	0.83
The use of the ePortfolio included support from my teacher.	3.95	0.69
The use of the ePortfolio included connections to course content.	3.85	0.67
The use of the ePortfolio included additional resources to aid my learning.	3.80	0.77
The ePortfolio included appropriate computer equipment to complete tasks.	4.05	0.51
I could easily use my ePortfolio (i.e., add reflections to my ePortfolio).	3.90	0.79
The ePortfolio Workshop was a useful learning experience.	3.45	0.94
The instruction on transferable skills was useful when completing my learning tasks in my ePortfolio.	3.85	0.67

Profile of survey participants. Within the ePortfolio Experience Survey, there were demographic profile questions. The 20 participants consisted of 8 males (40%) and 12 females (60%). The majority of the students identified as White (65%), and the rest of the participants identified as Hispanic/Latino (15%), Black (5%), and Asian/Pacific

Islander (15%). Of the 20 students, 16 participants were 15 years old (80%), and four participants were 16 years old (20%), and all participants were in the 10th grade (100%).

In Table 4.4, there is a summary of the demographic of each participant.

Table 4.4 *Demographic Profile of Participants (n = 20)*

Variable	F	%
Gender		
Male	8	40
Female	12	60
Ethnicity		
Black	1	5
Asian/Pacific Islander	3	15
White	13	65
Hispanic/Latino	3	15
Age		
15	16	80
16	4	20
Grade level		
10th	20	100

Part Two: Qualitative Data

Through an inductive analysis, I analyzed five student interviews and four reflections per 20 participants, for a total of 80 student reflections. The purpose of collecting this qualitative data was to receive feedback from students about their experiences and perceptions when using the ePortfolio with a reflection on transferable skills. When conducting student interviews, I asked open-ended questions so students could expound on their experiences with the ePortfolio intervention. All of the interviews were recorded and then transcribed verbatim. Student reflections were part of the ePortfolio intervention, and these 80 written reflections allowed students to comment on the innovation. They also commented on additional learning experiences.

The inductive analysis of this data involved multiple stages of concurrent and overlapping coding (Creswell, 2017; Glaser & Strauss, 1967). In Delve, an online qualitative analysis tool, the initial codes were established. As the coding process continued, more codes evolved, and codes were combined into categories to organize students' responses in connection to the research questions (Charmaz, 2006; Creswell, 2017; Mertler, 2017; Saldaña, 2016). In Table 4.5, the types of data, the number of student responses, and the total number of codes applied are described. The following sections in this chapter summarize the qualitative data analysis and describe the themes that emerged from the study. Member checking and peer debriefing were conducted to ensure accuracy in analysis.

Table 4.5 *Quantity of Qualitative Data by Source*

Types of Qualitative Data	Number	Total Number of Codes Applied
Interview Transcripts	5 participants	47
Student-written Reflections	20 participants (80 reflections)	103

Qualitative Data Sources

Interviews. At the conclusion of the study, students were randomly selected, based on availability, to answer semi-structured interview questions. These questions were developed to address each of the three research questions of this study. A total of five students, three females (two white and one Hispanic) and two males (one white and one black) were interviewed. After transcribing each of these five interviews into Delve, I began the coding process. Through open coding of the interview data, a total of 47 codes, and 13 categories. Eventually, three major themes were revealed.

Reflections. When students created their ePortfolios, they participated in a lesson on transferable skills, and eventually, they completed four ELA assignments; after uploading the assignments to their ePortfolio, students had to reflect on each one. Specifically, students reflected on the transferable skills used when completing the activity; each of the 20 students completed a total of four reflections in their ePortfolio, totaling 80 student reflections that focused on skills used within each assignment. After the major codes emerged from the student interviews, these codes were then searched for within each of the 80 student reflections for further analysis. Within the reflections, a total of 103 codes and eight categories were uncovered. All of the categories within the reflections mirrored those from the interviews.

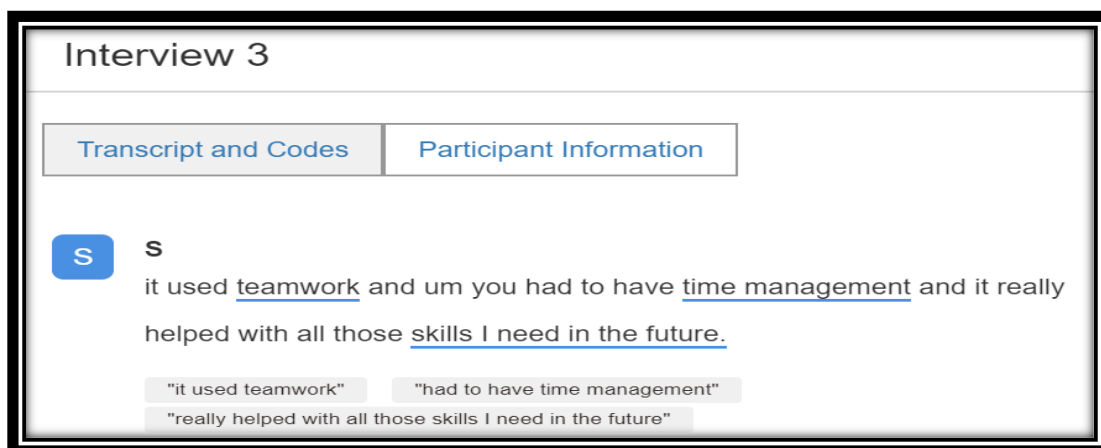
Analysis of Qualitative Data

Interviews. To analyze the interviews, I conducted an inductive analysis; I analyzed any changes in participants, expressions of change, and outcomes and impacts, like changes in participants' skills, feelings, attitudes, and behaviors (Saldaña, 2013; Patton, 2002). Through inductive analysis, my first stages of examining data were straightforward, and my later stages became broader, taking into account the specifics from the previous stages of coding, recoding, and categorizing. I compared "data with data, data with category, category with category, and category with concept" (Charmaz, 2006, p. 187); it was an on-going cycle of analysis (Saldaña, 2013).

First, I transcribed the five interviews verbatim into Delve, an online qualitative analysis tool that helped organize my insights into coding. To confirm accurate data, I replayed the interview recordings several times to ensure that the students' responses were correctly transcribed. Next, I decided to use In Vivo Coding to "honor children's

voices and to ground the analysis from their perspectives” (Saldaña, 2013, p. 61). I coded students’ responses line by line, labeling pertinent information with specific phrases such as “it used teamwork” (Interview 3) to represent students’ feedback on transferable skills that were used within the ePortfolio intervention. As seen in Figure 4.1, the coding process was elemental and predominantly In Vivo coding throughout my first round of coding as I kept the students’ words in my codes to keep the context and meaning (Charmaz, 2006; Saldaña, 2013).

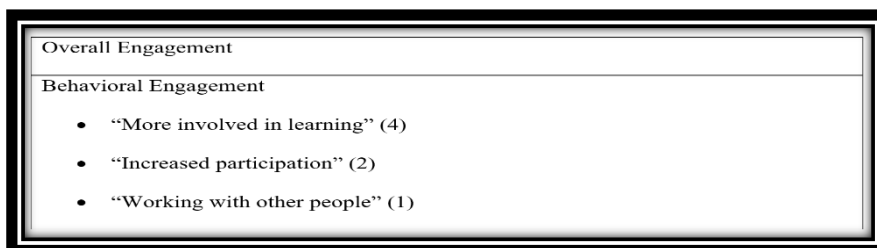
Figure 4.1 Example of Development of Codes from Raw Data



Explicitly, within the text of the interview transcripts, I used coding features in Delve to code every line of each response (Figure 4.1). For example, in Interview 3 (Figure 4.1), the student responded that “it used teamwork and um you had to have time management, and it really helped with all those skills I need in the future.” When analyzing this student response, I was as specific as possible when highlighting significant phrases. There were three explicit In Vivo codes within the student’s response: (a) “it used teamwork,” (b) “had to have time management skills,” and (c) “really helped with all those skills I need in the future.” By keeping the students’ exact words, I was able to ensure that I did not miss any rich data as cyclic coding continued. After highlighting and

In Vivo Coding 169 phrases within students' responses, I proceeded with the first to second cycle coding method, which is a more exigent analysis (Saldaña, 2013). I coded and recoded via eclectic coding, combining descriptive and concept coding, to summarize my first round of coding and to find significant participant conceptions. Condensing data through the coding cycle is not an act of reducing value to the data, but it increases the value of the study as significant concepts emerge (Saldañas, 2013; Madden, 2010). Eventually, 47 codes were produced from students' use of similar language to describe their ePortfolio experiences.

After reviewing all 47 eclectic codes in Delve, I created a chart in Microsoft Word to implement my next cycle of coding, pattern coding, which allowed me to look for similarities, differences, frequencies, and causation (Saldaña, 2013). The 47 codes were codified into 13 descriptive categories to amalgamate meaning and explanation (Creswell, 2013; Grbich, 2007; Mertler, 2017). Several students mentioned that they became more involved in their learning. For example, in Interview 1, the student described that she was "more involved in learning." In Interview 2 and Interview 3, students also mentioned "increased participation," and in interview 4, the student said that she was "working with other people." These codes were categorized under *behavioral engagement*, as seen in a portion of my chart in Figure 4.2 below.



Overall Engagement
Behavioral Engagement
• "More involved in learning" (4)
• "Increased participation" (2)
• "Working with other people" (1)

Figure 4.2 Example of Coding into Descriptive Categories

All of these categories and codes were organized in a Microsoft Word chart for further

analysis under three broader subthemes: (a) *overall perception of high school preparing for future*, (b) *overall engagement*, and (c) *overall perception of ePortfolio*.

After further analysis of these categories, I looked at the patterns and the relationships between the codes and categories. I used Delve to view the exact quotes associated with each category. Then, I made a list in Microsoft Word to organize direct quotes under each category to ensure that I was keeping the students' meaning in my coding. I included quotations from the interviews to support each subtheme. In this way, I was able to review an audit trail to ensure the validity of the coding process and the emerging themes. For example, upon analysis, the subtheme of *overall engagement* emerged into the theme of *ePortfolios increase engagement*, as seen from a portion of my coding notes in Figure 4.3 below.

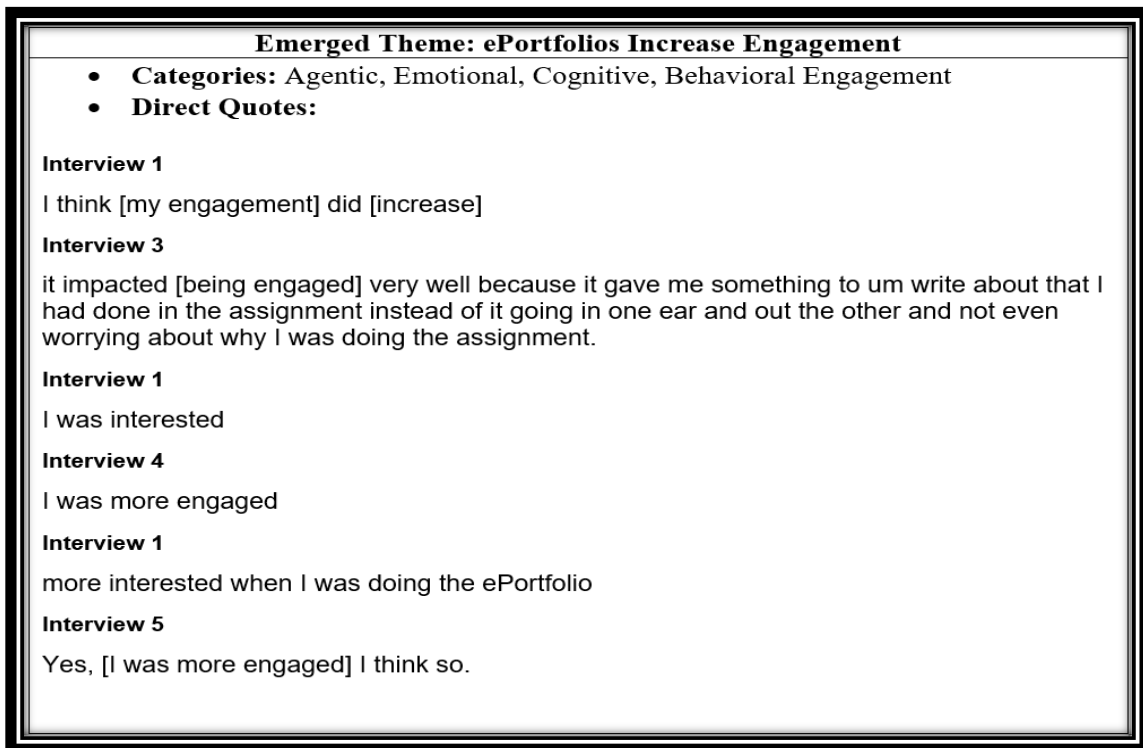


Figure 4.3 Organizational Chart to Review Themes, Categories, and Quotes

Delve's viewing features made it simple to review the student quotes categorized under engagement, which showed that multiple students were expressing similar experiences like "more interested when I was doing the ePortfolio" (Interview 1) and "I was more engaged" (Interview 4). Reviewing the repetition of the engagement codes led to the four engagement categories, the sub-theme of *overall engagement*, from which emerged the more specific theme of *ePortfolios increase engagement*. From this process of analysis, a clear picture surfaced of the positive impact that ePortfolios had on student engagement. For example, there were positive impacts seen throughout the textual evidence with words like *increased* and *more* being used frequently by students. The subtheme of *overall engagement* had ample support from direct textual evidence, codes, and categories, which clearly and validly characterized the evolution of the theme into *ePortfolios increase student engagement*.

In the same way, the other two subthemes eventually evolved into significant themes. Below, figure 4.4 shows the organization of codes into the eventual three major themes: (a) positive impact on students' perception of high school preparing them for future, college or career after using ePortfolios, (b) increased engagement with ePortfolios, and (c) positive perceptions of ePortfolios.

Throughout the analysis process, I validated findings via peer debriefing sessions with discussions with student-participants on the process of coding, categorizing, and emerging themes. Additionally, member checking with peers and experts ensured that the coding process accurately reflected the participants' feedback (Saldañas, 2013). By reviewing the findings, participants gave their affirmations of the results.

<p>Theme: Positive Impact on students' perception of high school preparing them for future</p> <p>Subtheme: Overall Perception of High School Preparing for Future</p>	<p>Theme: Increased engagement with ePortfolios</p> <p>Subtheme: Overall Engagement</p>	<p>Theme: Positive Perceptions of ePortfolios</p> <p>Subtheme: Overall Perception of ePortfolio</p>
<p><u>College and career skills for future</u></p> <ul style="list-style-type: none"> • builds C&C skills (10) • builds technology skills (2) • using C&C skills in class assignments (3) • learned C&C skills (6) • More ready for future (5) • Skills for future (5) • Teamwork skills (1) • Time management skills (1) • Writing skills (1) <p><u>Learning Personalized to Future</u></p> <ul style="list-style-type: none"> • liked showing personal skills (1) • makes learning personal (3) <p><u>Reflection on skills</u></p> <ul style="list-style-type: none"> • created assignment relevance (6) • reflection on skills in assignments created awareness of valuable learning (18) • reflection on skills created assignment relevance (16) • Never reflected in other classes (1) • Reflection shows how assignments can benefit future (8) • reflection helped assignment comprehension (5) 	<p><u>Agentic engagement</u></p> <ul style="list-style-type: none"> • makes learning personal (11) • More motivation (1) <p><u>Emotional engagement</u></p> <ul style="list-style-type: none"> • More interested after using ePortfolio (1) • more interested in class (6) • interested in class (1) • Pay attention more (1) • More engaged (1) <p><u>Cognitive engagement</u></p> <ul style="list-style-type: none"> • More work done (1) • Depends on my mood (1) <p><u>Behavioral engagement</u></p> <ul style="list-style-type: none"> • more involved in learning (4) • increased participation (2) • Working with other people (1) 	<p><u>Defining ePortfolio</u></p> <ul style="list-style-type: none"> • display skills in ePortfolio (3) • easy way to comprehend assignment (2) • Collection of work to show skills (5) <p><u>Perceived personalized learning</u></p> <ul style="list-style-type: none"> • makes learning personal (11) • liked showing personal skills (1) <p><u>Using technology</u></p> <ul style="list-style-type: none"> • liked building the ePortfolio (1) • liked using technology in class (1) • technology issues at school (1) <p><u>Beneficial in all subject matters</u></p> <ul style="list-style-type: none"> • can show how other classes benefit future (9) • reflection on skills in assignments created awareness of valuable learning (6) • easy way to comprehend assignment (2) • reflection helped assignment comprehension (4) • using C&C skills in class assignments (2) <p><u>Impact on students</u></p> <ul style="list-style-type: none"> • positive experience ePortfolio (6) • overall ePortfolio helpful (8) • easy way to comprehend assignment (2) • More work done (1) • After, Positive perception of ePortfolio (10) <p><u>Prior experience</u></p> <ul style="list-style-type: none"> • prior experience writing a reflection (1) • prior technology/website experience (1) • Prior, Neutral perception of ePortfolio (6)

Figure 4.4 Example of Analysis and Coding Process

Student reflections. Keeping the final interview codes and 13 categories in mind, I analyzed the 80 student reflections with a more holistic coding approach (Saldaña, 2013). I coded each student’s reflection, one by one; I did not code line by line, but I looked for categories and themes from the interview analysis, recording descriptive codes from the participant-generated reflections in a table in Microsoft Word, as seen in Figure 4.4 below.

<ul style="list-style-type: none"> • skills used in assignment (20) • skills will help me in my future profession (20) • skills used in assignment help my future (20) 	<ul style="list-style-type: none"> • motivated me (4) • had fun (2) • completed all my work in class (8) • Worked with others (6) 	<ul style="list-style-type: none"> • Awareness of skills within even small assignments (6) • Positive insights to assignment perception (17)
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Figure 4.4 Major Codes from Student Reflections

One code can be both descriptive and holistic for qualitative synthesis (Saldaña, 2013). During the first round of coding, these codes were simple statements. While the language may have varied slightly, codes were created to describe similar feedback within the reflections and as related to the interview analysis, like *skills used in assignment* and *motivated me*. Descriptive coding does not expedite the coding process as it still necessitates rigorous coding and contemplation about meanings and conclusions (Saldaña, 2013). A total of 103 statements and phrases were descriptively coded, re-coded, and eventually became nine major codes.

Again, with the interview coding in mind, I implemented concept coding, and these nine codes were then organized into categories. The codes were condensed into

eight categories, which mirrored many of the categories from the interviews like *college and career skills for future, learning personalized to future, reflection on skills, agentic engagement, emotional engagement, cognitive engagement, behavioral engagement, and ePortfolio beneficial*, as seen in Figure 4.5.

<p><u>College and Career skills for future</u></p> <ul style="list-style-type: none"> • skills used in assignment (20) <p><u>Learning personalized to future</u></p> <ul style="list-style-type: none"> • skills will help me in my future profession (20) <p><u>Reflection on skills</u></p> <ul style="list-style-type: none"> • skills used in assignment help my future (20) 	<p><u>Agentic</u></p> <ul style="list-style-type: none"> • motivated me (4) <p><u>Emotional</u></p> <ul style="list-style-type: none"> • had fun (2) <p><u>Cognitive</u></p> <ul style="list-style-type: none"> • completed all my work in class (8) • depends on my mood (1) <p><u>Behavioral</u></p> <ul style="list-style-type: none"> • worked with others (6) 	<p><u>ePortfolio beneficial in all subject matters</u></p> <ul style="list-style-type: none"> • awareness of skills within even small assignments (6) • positive insights to assignment perception (17)
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Figure 4.5 Example of Coding from Student Reflections

After further analyzing and coding, the same three subthemes emerged: (a) *overall perception of high school preparing for future*, (b) *overall engagement*, and (c) *overall perception of ePortfolio*.

Not surprisingly, the student reflections had similarities to the student interviews as student quotes had positive connotation words like *more* and *increased*. Again, three major themes emerged: (a) *positive impact on students' perceptions of high school preparing them for the future*, (b) *increased engagement with ePortfolios*, and (c) *positive perceptions of ePortfolios* as seen below in Figure 4.6.

<p>Theme: Positive Impact on students' perception of high school preparing them for future</p> <p>Subtheme: Overall Perception of High School Preparing for Future</p>	<p>Theme: Increased engagement with ePortfolios</p> <p>Subtheme: Overall Engagement</p>	<p>Theme: Positive Perceptions of ePortfolios</p> <p>Subtheme: Overall Perception of ePortfolio</p>
<p><u>College and Career skills for future</u></p> <ul style="list-style-type: none"> skills used in assignment (20) <p><u>Learning personalized to future</u></p> <ul style="list-style-type: none"> skills will help me in my future profession (20) <p><u>Reflection on skills</u></p> <ul style="list-style-type: none"> skills used in assignment help my future (20) 	<p><u>Agentic</u></p> <ul style="list-style-type: none"> motivated me (4) <p><u>Emotional</u></p> <ul style="list-style-type: none"> had fun (2) <p><u>Cognitive</u></p> <ul style="list-style-type: none"> completed all my work in class (8) Depends on my mood (1) <p><u>Behavioral</u></p> <ul style="list-style-type: none"> Worked with others (6) 	<p><u>ePortfolio beneficial in all subject matters</u></p> <ul style="list-style-type: none"> Awareness of skills within even small assignments (6) Positive insights to assignment perception (17)

Figure 4.6 Codes, Categories, Subthemes, and Themes from Student Reflections

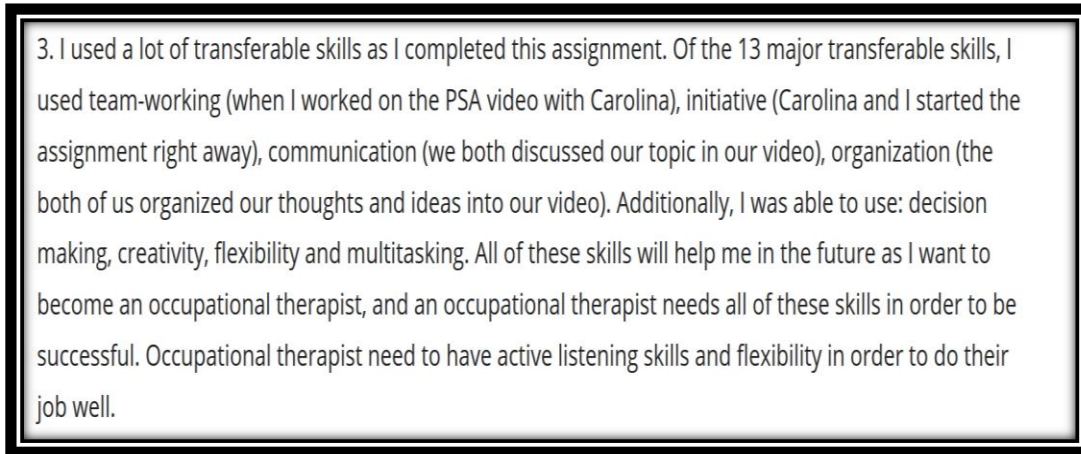
These reflection codes and categories were combined with the interview coding chart to review the overall codes, categories, subthemes, and themes from all qualitative data, as seen in Figure 4.7 below.

The majority of student reflections focused on how skills used within class assignments consisted of transferable skills that would help them to be successful in their futures. Whether students aspired to be a doctor or an interior designer, students were finding college and career skills within their class assignments and making the connection that these skills could help them in their future profession or their future in general.

<p>Theme: Positive Impact on students' perception of high school preparing them for future</p> <p>Subtheme: Overall Perception of High School Preparing for Future</p>	<p>Theme: Increased engagement with ePortfolios</p> <p>Subtheme: Overall Engagement</p>	<p>Theme: Positive Perceptions of ePortfolios</p> <p>Subtheme: Overall Perception of ePortfolio</p>
<p><u>College and career skills for future</u> (Interviews)</p> <ul style="list-style-type: none"> • builds C&C skills (10) • builds technology skills (2) • using C&C skills in class assignments (3) • learned C&C skills (6) • More ready for future (5) • Skills for future (5) • Teamwork skills (1) • Time management skills (1) • Writing skills (1) <p>(Reflections)</p> <ul style="list-style-type: none"> • skills used in assignment (20) <p><u>Personal learning for future</u> (Interviews)</p> <ul style="list-style-type: none"> • Personal to future (3) <p>(Reflections)</p> <ul style="list-style-type: none"> • skills will help me in my future profession (20) <p><u>Reflection on skills</u> (Interviews)</p> <ul style="list-style-type: none"> • created assignment relevance (6) • reflection on skills in assignments created awareness of valuable learning (18) • reflection on skills created assignment relevance (16) • Never reflected in other classes (1) • Reflection shows how assignments can benefit future (8) • reflection helped assignment comprehension (5) <p>(Reflections)</p> <ul style="list-style-type: none"> • skills used in assignment help my future (20) 	<p><u>Agentic engagement</u> (Interviews)</p> <ul style="list-style-type: none"> • makes learning personal (11) • more motivation (1) <p>(Reflections)</p> <ul style="list-style-type: none"> • motivated me (4) <p><u>Emotional engagement</u> (Interviews)</p> <ul style="list-style-type: none"> • More interested after using ePortfolio (1) • more interested in class (6) • interested in class (1) • Pay attention more (1) • More engaged (1) <p>(Reflections)</p> <ul style="list-style-type: none"> • Had fun (2) <p><u>Cognitive engagement</u> (Interviews)</p> <ul style="list-style-type: none"> • More work done (1) • Depends on my mood (1) <p>(Reflections)</p> <ul style="list-style-type: none"> • completed all my work in class (8) <p><u>Behavioral engagement</u> (Interviews)</p> <ul style="list-style-type: none"> • more involved in learning (4) • increased participation (2) • Working with other people (1) <p>(Reflections)</p> <ul style="list-style-type: none"> • Worked with others (6) 	<p><u>Defining ePortfolio</u> (Interviews)</p> <ul style="list-style-type: none"> • display skills in ePortfolio (3) • easy way to comprehend assignment (2) • Collection of work to show skills (5) <p><u>Perceived personalized learning</u> (Interviews)</p> <ul style="list-style-type: none"> • makes learning personal (11) • liked showing personal skills (1) <p><u>Using technology</u> (Interviews)</p> <ul style="list-style-type: none"> • liked building the ePortfolio (1) • liked using technology in class (1) • technology issues at school (1) <p><u>Beneficial in all subject matters</u> (Interviews)</p> <ul style="list-style-type: none"> • can show how other classes benefit future (9) • reflection on skills in assignments created awareness of valuable learning (6) • easy way to comprehend assignment (2) • reflection helped assignment comprehension (4) • using C&C skills in class assignments (2) <p>(Reflections)</p> <ul style="list-style-type: none"> • Awareness of skills within even small assignments (6) • Positive insights to assignment perception (17) <p><u>Impact on students</u> (Interviews)</p> <ul style="list-style-type: none"> • positive experience ePortfolio (6) • overall ePortfolio helpful (8) • easy way to comprehend assignment (2) • More work done (1) • After, Positive perception of ePortfolio (10) <p><u>Prior experience</u> (Interviews)</p> <ul style="list-style-type: none"> • prior experience writing a reflection (1) • prior technology/website experience (1) • prior, Neutral perception of ePortfolio (6)

Figure 4.7 Complete Interview and Reflection Coding Organizational Chart

In the student reflection example below (Figure 4.8), Student 14 lists out six different transferable skills that she used within Assignment 1; she considered these specific skills that she used in class to be beneficial to her future aspiration of becoming an occupational therapist.



3. I used a lot of transferable skills as I completed this assignment. Of the 13 major transferable skills, I used team-working (when I worked on the PSA video with Carolina), initiative (Carolina and I started the assignment right away), communication (we both discussed our topic in our video), organization (the both of us organized our thoughts and ideas into our video). Additionally, I was able to use: decision making, creativity, flexibility and multitasking. All of these skills will help me in the future as I want to become an occupational therapist, and an occupational therapist needs all of these skills in order to be successful. Occupational therapist need to have active listening skills and flexibility in order to do their job well.

Figure 4.8 Reflection Example (Student 14)

Since it was part of the ePortfolio reflection instructions, all 20 student-participants focused their comments on the skills used within assignments and connections to skills necessary to be successful in their futures. However, there were comments on engagement, with 20 instances categorized under the four types of engagement. There were 23 instances in the reflections that were coded under *awareness of skills* and *positive insights to assignment perception*. There were not any negative comments within the reflections, and all 20 students completed four reflections on their assignments within the ePortfolio.

Themes and Interpretations

In response to the major research questions, students' thoughts and experiences were analyzed, and from their responses, themes emerged. Three significant themes developed: (a) *positive impact on students' perception of high school preparing them for*

their future, (b) increased engagement, and (c) positive perceptions of ePortfolios. Listed below, in Table 4.6, are the categories that led to the creation of each theme. Each one of these themes and categories is defined and described.

Table 4.6 *Primary Themes that Emerged from Qualitative Data*

Themes	Categories
1. Positive Impact on Students' Perceptions of High Schools Preparing for Future	<ul style="list-style-type: none"> • College and career skills for future • Personal learning for future • Reflection on skills
2. Increased Engagement with ePortfolios	<ul style="list-style-type: none"> • Agentic engagement • Emotional engagement • Cognitive engagement • Behavioral engagement
3. Positive Perceptions of ePortfolios	<ul style="list-style-type: none"> • Defining ePortfolio • Perceived personalized learning • Using Technology • Beneficial in all subjects • Impact on students • Prior Experience

Positive Perceptions of Preparation for Future

Students' perceptions of high school preparing them for their future was significant because perceptions shape reality (Kinsey, 2011). Kinsey (2011) surveyed over 5,000 students and found that 62% felt that their school did not prepare them for college, and over 50% felt that their school did not prepare them for their future careers. Many high school students do not perceive high school to prepare them to be successful in the future. In this study, high school students were asked their opinions on whether or not the high school was preparing them for their futures, making them college and career ready. Students expressed that their perceptions of college and career readiness became more positive after the ePortfolio intervention because students become aware that, even

in seemingly irrelevant assignments, they were using valuable transferable skills that would help them become successful adults.

The ePortfolio with a reflection on college and career skills positively impacted students' perceptions on high school preparing them for their future; this theme emerged as students consistently reported that even seemingly irrelevant content that students learned in their class assignments was a catalyst for them to learn or hone valuable college and career skills that would help them in their future. For example, in Interview 1, the student stated, "Yeah, like a little worksheet; I didn't know like that it would do so much." The reflective ePortfolio intervention helped students see value in classwork that they typically did not value, which positively impacted students' perceptions of their assignments as they realized that there was a connection between their high school assignment and their future goals. In all five student interviews and throughout all 80 student reflections, students consistently made statements about the realization that high school assignments were not just about learning content, but that assignments were helping them practice life-long skills that would prepare them for their future in college or a career.

Explicitly, the high school students involved in the ePortfolio reflection innovation described how their perceptions of college and career preparedness were changed; these altered perceptions were categorized into three major areas: (a) *college and career skills for future*, (b) *reflection on college and career skills*, and (c) *personalized learning for future*. Below, each of these is described.

College and career skills for the future. In this study, students referred to college and career skills as the transferable skills that they used to complete the four ELA

assignments and as skills that would also help them be successful in their futures. While there are many definitions for transferable skills, a collective description by researchers defined them as skills learned in school that apply across various contexts, including college and career (Bridges, 1993). Cranmore, Adams, Wiley, and Holloway (2019) discovered that students who were dissatisfied with their high school education desired more self-improvement in terms of college and career skills like study skills, time management, and critical thinking.

Within the ePortfolio innovation, students expressed that the lesson on college and career readiness skills helped them understand which skills are most needed to be prosperous adults after high school. The students involved in the ePortfolio intervention participated in a lesson that described the following 13 skills which are commonly considered essential to do well in college or career: (a) adaptability (adjusting to change), (b) analysis (discover, explain, and interpret), (c) communication (verbal and written), (d) initiative (assess and take charge), (e) IT (use of technology), (f) leadership (being a leader), (g) motivation (willingness), (h) numeracy (reason with numbers), (i) organization (plan and order), (j) presentation (publicly speak and demonstrate), (k) problem-solving (finding solutions), (l) self-confidence (trusting one's abilities), and (m) team-working (effectively working with others) (Bennett, 2003). Students readily referred to these skills within their written ePortfolio reflections.

For example, students reported that the ePortfolio intervention “built technology skills” (Interview 1), “helped with my organizational skills” (Interview 2), “built more skills” (Interview 3), “helped me practice personal skills I need which make me feel more ready for the future” (Interview 4), and “identified my skills and strengths and

weaknesses” (Interview 5). Additionally, in every single one of the 80 reflections, students recounted at least one skill that they used within each assignment, and they reflected on the future benefit of learning or practicing that skill, as seen in Student 10’s reflection (Figure 4.9).

For this assignment we had to write some of the most significant events of our past and our future. This assignment helped me to remember some of my past. Out of the thirteen major skills I used initiative and organization. Some personal skills that I used was time management. These skills will help me in the future to be successful and productive. Overall, I learned about my childhood and what accomplishments I have done.

Figure 4.9 Skills Reflection on Assignment 3 (Student 10)

Student 10, whose ambition was to be a pilot, described that he felt that this assignment was beneficial to him because he practiced taking the initiative, being organized, and managing his time, which he believes will help him be successful in the future. Similarly, in Student 15’s reflection (Figure 4.10), he described many transferable skills that he used to complete the ELA assignment.

3. In this assignment, I made a list explaining the basic and some little but some big events in my life. Then I made a few explaining what I want to accomplish later on in life. This assignment needed me to be well organized because, the events needed to be in chronological order and make sense on how it flows on. Just like in physical therapy you need to have stretches, therapy, and many more organized so you can treat the right thing in the right order and not harm the body. I also communicated well with my teacher to make sure that it was fine to use pictures that were not uploaded from drive.

Figure 4.10 Skills Reflection on Assignment 3 (Student 15)

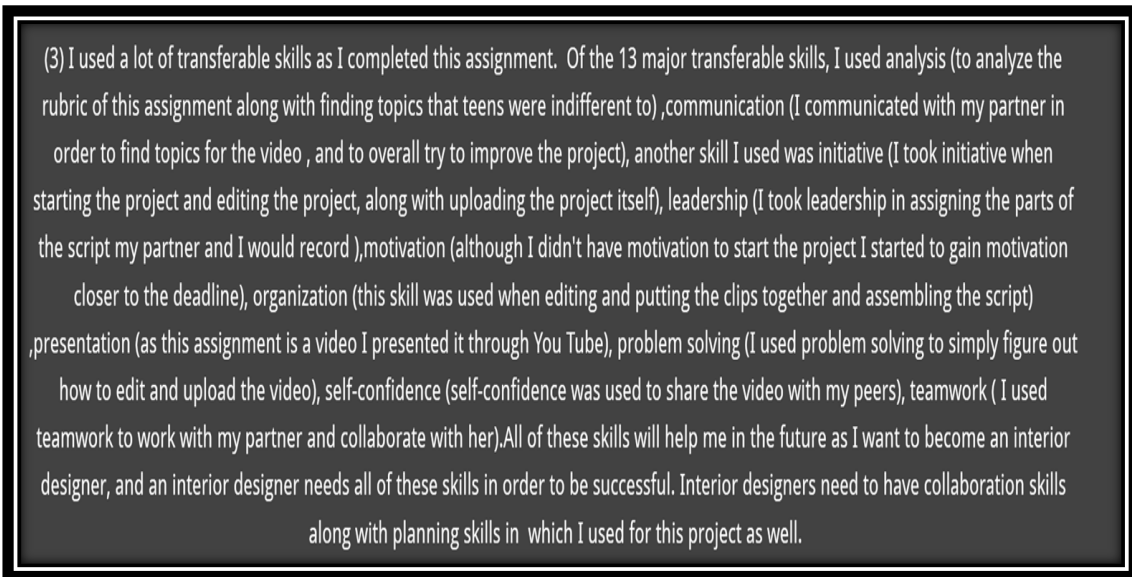
Similarly, Student 15, who had the goal to be a physical therapist, described that he practiced organizational and communication skills when completing his assignment, and these skills would help him to achieve his future goal of being a physical therapist. In both the interviews and the reflections, students consistently reported that they were utilizing various transferable skills within their class assignments that would help them be more successful in their futures.

Reflection on skills. In this study, reflection is considered the act of a student examining his or her assignment for the use of transferable skills, resulting in new knowledge of his or her experience (Rogers, 2001). A more reflective self-awareness in students has positively impacted learning (Harring & Luo, 2016; Pavalovich et al., 2009). Specifically, the high school students involved in this ePortfolio innovation reflected on their regular ELA class assignments to see if they found new knowledge or awareness of transferable skills used within four different class assignments.

For example, one student, in Interview 3, responded that he “didn't think like some of these classes would help [him] in the future, but now that we did [reflect on] these assignments [in the ePortfolio] it has; I could see which skills high school was making me practice that I need in the future.” In Interview 5, the student expressed the same sentiment, stating that the reflection on skills “helped me realize that the [assignments] we do here, we build on the skills. Everything that you do, you build on it so it will help me in my future.” Furthermore, in Interview 1, the student reported that the reflection on skills created an awareness of how any class assignment can benefit her future when she stated that “in classes like history, I didn't know how those assignments could really help me, but through like doing the reflections in this ePortfolio, it shows

how every little assignment uses skills that can benefit your future.” In all student responses, participants reported that within classroom assignments, they were more aware of valuable transferable skills that would benefit them in their future goals in college or career.

Participants in this study also reported within the ePortfolio reflections that the skills within the ELA assignments helped them to become aware that class assignments were relevant to them and their futures. For example, Student 3’s (Figure 4.11), Student 5’s (Figure 4.12), and Student 19’s (Figure 4.13) reflections on Artifact 1 within their ePortfolio clearly expressed their awareness of how skills used within a school assignment can benefit their futures.

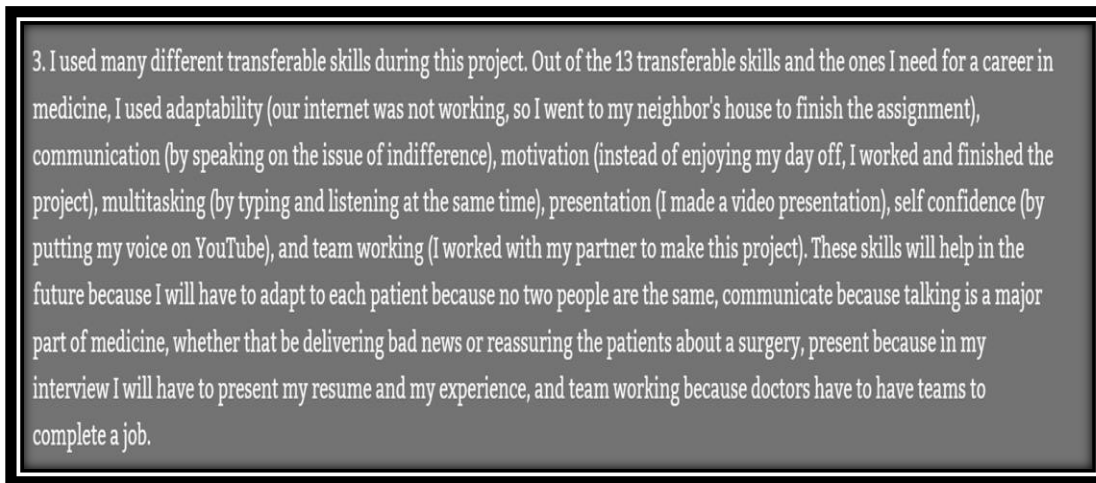


(3) I used a lot of transferable skills as I completed this assignment. Of the 13 major transferable skills, I used analysis (to analyze the rubric of this assignment along with finding topics that teens were indifferent to), communication (I communicated with my partner in order to find topics for the video, and to overall try to improve the project), another skill I used was initiative (I took initiative when starting the project and editing the project, along with uploading the project itself), leadership (I took leadership in assigning the parts of the script my partner and I would record), motivation (although I didn't have motivation to start the project I started to gain motivation closer to the deadline), organization (this skill was used when editing and putting the clips together and assembling the script), presentation (as this assignment is a video I presented it through YouTube), problem solving (I used problem solving to simply figure out how to edit and upload the video), self-confidence (self-confidence was used to share the video with my peers), teamwork (I used teamwork to work with my partner and collaborate with her). All of these skills will help me in the future as I want to become an interior designer, and an interior designer needs all of these skills in order to be successful. Interior designers need to have collaboration skills along with planning skills in which I used for this project as well.

Figure 4.11 Skills Reflection on Assignment 1 (Student 3)

Student 3, whose goal was to be an interior designer, (see Figure 4.11) reported that she used a total of 10 skills: (a) analysis, (b) communication, (c) initiative, (d) leadership, (e) motivation, (f) organization, (g) presentation, (h) problem-solving, (i) self-confidence,


and (j) teamwork; she discussed that practicing all of these skills would help her become a successful interior designer in the future.



3. I used many different transferable skills during this project. Out of the 13 transferable skills and the ones I need for a career in medicine, I used adaptability (our internet was not working, so I went to my neighbor's house to finish the assignment), communication (by speaking on the issue of indifference), motivation (instead of enjoying my day off, I worked and finished the project), multitasking (by typing and listening at the same time), presentation (I made a video presentation), self confidence (by putting my voice on YouTube), and team working (I worked with my partner to make this project). These skills will help in the future because I will have to adapt to each patient because no two people are the same, communicate because talking is a major part of medicine, whether that be delivering bad news or reassuring the patients about a surgery, present because in my interview I will have to present my resume and my experience, and team working because doctors have to have teams to complete a job.

Figure 4.12 Skills Reflection on Assignment 1 (Student 5)

Student 5, whose future goal is to be a doctor, (see Figure 4.12) stated that he wanted to pursue a future in medicine and that Assignment 1 would help him be successful in that field because he practiced the following seven transferable skills: (a) adaptability, (b) communication, (c) motivation, (d) multi-tasking, (e) presentation, (f) self-confidence, and (g) teamwork.



skills. Of these 13 transferable skills I used, communication (Speaking to the audience in the video in a clear understating way), IT (I was able to navigate the editing app and successfully edit the video), Motivation (we were Motivated to get the job done and to get our point across), Presentation (we successfully presented in a clear understanding was), Problem solving (We faced a problem where we had forgotten a piece of information and we successfully edited it in). Additionally, I was able to meet the deadline, have a creative video that stood out from all the other videos, make time for editing and filming the video, and enjoy making the video at the same time. All these skills will help me in the future as I want to be a film producer in the future.

(4) Being a film producer requires a lot of the skills above, and working on this project helped me develop skills for my future job.

Figure 4.13 Skills Reflection on Assignment 1 (Student 19)

Lastly, Student 19, whose future goal was to be a movie producer, (see Figure 4.13) reported that since he wanted to be a film producer, Assignment 1 benefited him because he was able to practice the following six skills: (a) communication, (b) IT, (c) motivation, (d) presentation, (e) problem-solving, and (f) time-management. In all 80 reflections from all 20 student-participants, at least one of the 13 transferable skills was mentioned as being used within their ELA classroom assignments; furthermore, in all 80 reflections, students made the connection that the transferable skills used within the ELA assignments were skills that they needed to be successful in their future endeavors.

Personalized learning for the future. When learning is personalized to the student, it reinforces ownership of their work (Hallam et al., 2010; Hiller, Pauschenwein, & Sandtner, 2007; McGuinness, 2015; Pelliccione, Dixon, & Giddings, 2005). In the interviews, students said that the reflective ePortfolio intervention allowed them to make each assignment “apply to me personally” (Interview 4) and “display all of my skills and make my work more personal” (Interview 2). The personalized learning within the ePortfolio showed students that general class assignments were personally relevant to each of them.

Additionally, when initially creating their ePortfolios, students customized their Google Sites pages and created a personalized goal page. All 20 students created their own goal/transferable skills page which listed the most common 13 transferable skills that employers look for in high school graduates (Bennet, 2003), and students also displayed their personal future goals alongside the specific skills which they considered to be the most important to help them accomplish their future goal. For example, many



students used custom backgrounds and images to accompany their personal goals and skills needed to reach those goals, as seen below, in Figure 4.14, by Student 8.

My Goals/Transferable Skills

I have set goals to acquire certain transferable skills to help me be successful in the future!

While there are a myriad of transferable skills, employers commonly seek out people who have the following skills:

(a) adaptability, (b) analysis, (c) communication, (d) initiative, (e) IT, (f) leadership, (g) motivation, (h) numeracy, (i) organization, (j) presentation, (k) problem solving, (l) self-confidence, and (m) team-working



Since I want to be a chef,

- knife skills
- hard skills
- soft skills
- team work
- multitasking
- motivator

these skills are important to me

- attention to detail
- creativity
- cleanliness
- decision making
- business sense

Figure 4.14 Student 8's Personal Goal Page

Student 8's career goal was to be a chef, and she identified many skills like teamwork and multitasking that she found to be the most significant to achieve her career goal.


While having a different goal, Student 10 still discovered many transferable skills. These skills within the assignment can help him be successful as a pilot, as seen in Figure 4.15.

My Goals/Transferable Skills


I have set goals to acquire certain transferable skills to help me be successful in the future!

While there are a myriad of transferable skills, employers commonly seek out people who have the following skills:

(a) adaptability, (b) analysis, (c) communication, (d) initiative, (e) IT, (f) leadership, (g) motivation, (h) numeracy, (i) organization, (j) presentation, (k) problem solving, (l) self-confidence, and (m) team-working



Since I want a career in aviation,



these skills are important to me

- Resource management
- Interpret the instruments
- Federal aviation regulations
 - Confidence
 - Multi-tasking
 - Time Management
 - Problem Solving
 - Adaptability

Figure 4.15 Student 10's Personal Goal Page

Since student 10's personal goal was to become a pilot, he was also able to identify relevant transferable skills like problem-solving, adaptability, and time management that would help him obtain his aviation goal. In both the interviews and within the students'

ePortfolios, students expressed that because of the ePortfolio with a reflection on transferable skills, their perspectives on their classwork changed as they saw classwork as more personal to their particular goals in life. Each student completed the same standard ELA assignment, and each student was able to reflect on skills that would be useful to their very different future career goals.

Increased Engagement with ePortfolios

Overall, engagement was considered to be students' connection with school or learning; this connection can be measured by various factors like students' attendance, participation, completion of work, and perception of relevance to future ambitions (Josten, 2015). Studies have shown that among the many benefits of ePortfolios, increased engagement is continually a positive effect (Hilyer & Ley, 1996; Wade, Abrami, & Sclater, 2005). In this particular study, students who participated in the ePortfolio reflection intervention described a positive impact on their level of engagement. In all five interviews, students used the word "more" (Interview 1, Interview 2, Interview 3, Interview 4, & Interview 5) to describe their increased levels of engagement as an effect of the ePortfolio innovation.

The high school students involved in the ePortfolio reflection study described in detail how their perceptions of engagement positively changed; their changed perceptions of engagement were categorized into four types of engagement: (a) agentic, (b) emotional, (c) cognitive, and (d) behavioral. Each of these four types of engagement is described below.

Agentic engagement. Personalization, modification, or enrichment in learning defines agentic engagement (Reeve, 2012). Students who are proactive and intentional in

their education would be displaying agentic engagement tendencies (Reeve, 2012). In Interview 2, the participant stated that he was “more motivated to do my work when I actually knew it was going to like help me in the future.” Within all of the interviews, there were 11 instances in which students described the ability to personalize their learning and five instances in the interviews and reflections in which various students expressed increased motivation.

Behavioral engagement. Perceptible behaviors are types of behavioral engagement (Fredricks et al., 2011; Henrie et al., 2015; Patall, 2016). Within the student interviews and written reflections, there were 13 instances in which students commented on their behavior by stating that they were more involved and participatory. For example, in Interview 4, the participant in this study described being “more engaged with other people working.” An increase in involvement, participation, and working with others are the types of positive behavioral engagement that occurred during this study.

Cognitive engagement. Cognitive engagement is the attention and effort that learners gave to understanding their work (Fredricks et al., 2011; Henrie et al., 2015; Patall, 2016) and focused on the degree of investment that the student put into learning (Wang & Fredericks, 2014). During this four-week intervention, students showed cognitive engagement when they were able to see their ELA assignments as beneficial to their lives after high school graduation. In Interview 5, the participant stated that she “found relevance in [ELA assignments] even if they didn't seem that relevant at first.” Participants became conscious of how transferable skills used within ELA assignments would help them become successful in the future. Other types of cognitive engagement,

like completing all of their work in class and completing more work than usual, were also mentioned nine times throughout the interviews and reflections.

As described above, the overwhelming majority of students reported that they were more engaged when using ePortfolios. However, one student-participant, in Interview 2, mentioned that completing her work in class “depended on [her] mood that day.” While there is not prevalent data to support this conflicting feedback, I felt it was significant to mention that students’ moods and other unknown outside factors affect students’ work in class. It is unrealistic for classroom teachers and action researchers to expect every student to be in an engaged state of mind in every class because of outside factors that are out of teachers’ control (Reschly et al., 2008; Carter et al., 2007). So, these students’ experiences may be affected by their mood with regard to being engaged during the ePortfolio intervention. Given that this class did not have any students with significant behavioral issues, there was not any other feedback on mood affecting their work or productivity. Students completed all of their ELA activities and ePortfolio reflections.

Affective (emotional) engagement. Affective engagement includes the learners’ emotions. Positive emotional engagement would involve the student being interested in class and also having positive experiences with peers and educators (Fredricks et al., 2011; Henrie et al., 2015; Patall, 2016). Reflection fosters a search for emotional connections by the student (Moon, 1999; Zull, 2002), and in this study, the ePortfolio reflections resulted in increasing affective engagement. In Interview 4, the participant stated that the reflective ePortfolio “helped me pay attention more in class.” There were

10 more instances in which various students recalled that they were more interested, paid more attention, and were more engaged.

Positive Perceptions of ePortfolios

Students' perspectives on their learning are vital to helping gauge the value of various learning strategies; this study sought participants' views on ePortfolios with a reflection on transferable skills. As online learning has become more and more popular, research has begun to emerge on ePortfolios and students' perceptions of them, with results commonly showing positive perspectives on ePortfolios (Wakimoto & Lewis, 2014; Pelliccione & Raison, 2009; Shepherd & Bolliger, 2011). One such study used surveys and interviews to understand participants' perceptions after using the e-portfolios; the results showed that, overall, students positively viewed ePortfolios as they experienced improved engagement, learning, and technology skills. They engaged in reflective practices to develop effective learning strategies and to practice technology skills (Pelliccione & Raison, 2009).

Similarly, students who participated in this study with ePortfolios on reflections on transferable skills viewed the ePortfolio as a positive experience in their learning. When asked if they regarded the ePortfolio as positive, negative, or neutral, all five interview participants had similar responses:

- | | |
|--------------|-----------------------|
| Interview 1: | Really positive. |
| Interview 2: | More positive now. |
| Interview 3: | Positive for sure. |
| Interview 4: | It's positive. |
| Interview 5: | I would say positive. |

This positive perception theme emerged as students consistently gave positive statements when they described their experiences with the ePortfolio intervention. In all five student interviews and throughout all 80 student reflections, students consistently reported positive experiences during the ePortfolio innovation.

Specifically, the high school students involved in the ePortfolio reflection innovation described their new perceptions of the ePortfolios in terms of six different attributes. Students' perceptions of the ePortfolio innovation were characterized in the following ways: (a) defining ePortfolio, (b) perceived personalized learning, (c) using technology, (d) benefits in all subjects, (e) impact on students, and (f) prior experience. Below, each of these six categories is described.

Defining ePortfolio. Within this study, reflective ePortfolios were defined as electronic portfolios that allow students to reflect on transferable skills within classroom assignments while providing enriched opportunities for the advancement of higher learning proficiencies that can potentially show that students are ready for college or a career. Duncan-Pitt and Sutherland (2006) defined ePortfolio in great detail as,

A system that belongs to the learner, not the institution; populated by the learner not their examiner; primarily concerned with supporting learning not assessment; for life-long and life-wide learning not a single episode or a single course; that allows learners to present multiple stories of learning rather than just a simple aggregation of competencies; and, importantly, where access to them is controlled by the learner who is able to invite feedback to support personal growth and understanding (p. 70).

Within the student interviews, it was clear that students perceived the ePortfolios with the same positive connotations as were initially intended and as seen within their personal definitions. Interview participants defined ePortfolios in the following ways:

- | | |
|--------------|---|
| Interview 1: | Demonstrating your assignment and then reflecting on them so that you can understand what you are learning. |
| Interview 2: | Collection of work we did in class and just a defining of the work. Defining the work that we did in class and just reflecting on it. |
| Interview 3: | An ePortfolio is a helpful website where you can keep your tasks or assignments that you do over weeks in class. |
| Interview 4: | As learning to like to find out more about yourself and see what you can do and how well you learn and know some things. |
| Interview 5: | An online composition of like um your skills and tasks that you've done that show what you're good at. |

None of the student participants defined the ePortfolio with any negative words or phrases. Statements like “so you can understand what you’re learning” (Interview 1), “defining what we did in class” (Interview 2), “a helpful website where you can keep your tasks” (Interview 3), and “learning...more about yourself...what you can do and how well you know some things” (Interview 4) and “to show what you’re good at” (Interview 5) described the positive views that students felt when reflecting on their definition of an ePortfolio. While none of the students’ descriptions were precisely the same, overall, they defined an ePortfolio as a helpful technology tool that assists them in learning and understanding personal applications within their assignments.

Perceived personalized learning. Within this study and in context to students' perceptions of ePortfolios, personalized learning refers to students' views on their experiences personalizing their ePortfolio. During this study with the reflective ePortfolio, participants conveyed that they had a positive experience and a positive perception of using ePortfolios to personalize their learning. Specifically, three interview participants commented on their perceptions of personalizing their education within the ePortfolios:

- | | |
|--------------|--|
| Interview 1: | I like building my own things and showing my skills. |
| Interview 2: | I enjoyed the personal reflections. |
| Interview 5: | I like to do things more personal. |

Using positive words such as “like” (Interview 1 & Interview 5) and “enjoyed” (Interview 2), students expressed their positive perceptions of personalized learning within the ePortfolio innovation.

Using technology. In this study, using technology was considered in terms of the creation and use of ePortfolios. Students created their ePortfolios via the online application Google Sites, and they continually used technology to upload their class assignments and reflect on the skills used within each assignment. Many recent studies have found that learners have positive experiences with computer-assisted instruction as it can encourage students to work at their own pace, among other benefits (Mead, 2016; Pane et al. 2017; Shepherd & Hannafin, 2011). Similarly to participants in recent studies, participants of the ePortfolio innovation also expressed positive experiences when using technology with direct statements such as, “I like technology” (Interview 1) and “I liked

building [a website] and the technology aspect of it” (Interview 2). Overall, students reported positive feelings towards using technology for the ePortfolio.

As described above, students found using the technology for ePortfolios to be positive. However, in Interview 1, while the student said that she liked technology, she also mentioned an issue with the school’s Wi-Fi restriction, which blocks specific images and videos. The participant stated, “The only thing is that our school blocked some technology features like uploading my image that I had to do at home” (Interview 1). As a result of the Wi-Fi restriction, the student had to spend some time outside of class to upload an image to her ePortfolio. While there is not a preponderance of data to support this different experience, I felt it was important to mention the school’s Wi-Fi restriction because it was the only source of student feedback that served as disconfirming evidence in regards to students’ experience using technology during the ePortfolio intervention.

Realistically, when using technology, teachers have to prepare for minor troubleshooting issues that may arise (Lopez & Rodriguez, 2009; Spendlove & Hooper, 2006). This student was the only one to mention the Wi-Fi restriction as a negative experience, but she was able to upload the image at home easily. Furthermore, she expressed that her overall feelings were positive in regards to using technology during the study. All of these participants’ experiences may be influenced by the outside factor of the school’s Wi-Fi restriction when using technology in the classroom and concerning their perceptions of ePortfolios. Primarily, students reported that they enjoyed the technology aspect of the ePortfolio intervention. Conceivably because student-participants were accustomed to using Chromebooks, Google applications, and troubleshooting technical issues relating to school Wi-Fi restrictions, the majority did not

report technology as any sort of encumbrance to them during the ePortfolio intervention period.

Beneficial in all subjects. In this ePortfolio study, participants were students in an ELA course. While writing courses tend to incorporate ePortfolios commonly, ePortfolios have been used with all types of subject matters and in all kinds of classes. Some recent studies have incorporated reflective ePortfolios in student pathways, school counselor programs, teacher education, business communication, and even clinical dentistry. Commonly, the results show that ePortfolios have positive effects on student learning in all subject areas (Bartlett, 2006; Curry & Lambie, 2007; Flanigan & Amirian, 2006; Okoro, Washington, & Cardon, 2011; Vernazza et al., 2011). In this ePortfolio study, all five interviewed students agreed that ePortfolios were beneficial in this ELA course.

Furthermore, those interviewees agreed that ePortfolios would be helpful to use in other subjects besides their ELA course. The interview participants stated the following concerning ePortfolio use in other classrooms and subjects:

- | | |
|--------------|--|
| Interview 1: | In classes like history, I don't know how those assignments could really help me, but through like doing the reflections in this ePortfolio, it shows how every little assignment can benefit your future. |
| Interview 2: | I feel like I'd do better because I knew what I was working towards by doing the schoolwork because of the reflection on the skills we use. |
| Interview 3: | It could help them learn more things in that class to see the relevance and apply it to me personally. |
| Interview 4: | So you can kind of grasp what you're learning and how good you are on some assignments and what you need to work on. |

Interview 5: It can really be used in any subjects [so that] I could try to find some relevance in those assignments by seeing what other skills I'm using.

Unanimously, interviewed participants agreed that implementing ePortfolios in other classes and subject matters would provide the same benefits as in this study, like personalization, content understanding, finding relevance, and many other benefits.

Impact on students. Previous studies have found that ePortfolios consistently had positive effects on learners; common benefits include self-assessment, increased learning, higher levels of engagement, improved technical skills, and assessment of learning (Barrett, 2007; Kilbane & Milman, 2017; Strudler & Wetzler, 2011; Turner & Simon, 2013; Fox et al., 2015). In this study on reflective ePortfolios, there were a total of 19 student statements that were coded into five major categories that described the reflective ePortfolio's overall impact on students. Students described their overall experience as positive. They expressed that the ePortfolio helped them to comprehend what they were doing in class and why they were doing it. For example, in Interview 2, the student stated that she felt "like [the ePortfolio] helped me better understand why I need to take high school classes to prepare for the future and like help me understand why I actually had to do the work that we did." In Interview 5, the student reported that the ePortfolio "helped me recognize things that I'm good at." Students felt a positive impact for a variety of reasons, such as their enjoyment using technology or because the ePortfolio allowed them to easily understand why they were doing an assignment or the benefits of doing an assignment.

Prior experience. Whether or not a student has previous experience with a learning strategy may affect their experience or provide more insight after using the same

learning strategy. Many researchers consider prior experience to be an essential factor when researching effects on different learning strategies within education and other realms (Long, Hallam, Creech, Gaunt, & Robertson, 2012; Witherspoon & Higashi, 2016). In this reflective ePortfolio innovation, students described their prior experience with ePortfolios. Below is each student's response when asked if they had ever used an ePortfolio before:

- | | |
|--------------|---|
| Interview 1: | I had worked on like websites like this prior to the ePortfolio, so I was like very knowledgeable on the technology aspect. |
| Interview 2: | No [prior experience]. |
| Interview 3: | I didn't even know what an ePortfolio was before we did this. |
| Interview 4: | No. Never. No [prior experience]. |
| Interview 5: | No [prior experience]. |

Only one out of the five interviewed participants in this study explained that they had prior experience with ePortfolios, while four had never used an ePortfolio before this study. Despite that the majority of interviewees did not have previous ePortfolio experience, all described their experiences with the ePortfolio as positive as they did have prior technology experience.

Summary

Collecting and examining the quantitative and qualitative data were crucial to the impetus of this action research plan, and this chapter presents this critical data collection information. In this mixed-methods study, quantitative data were collected via pre

surveys and post surveys. The surveys consisted of Likert-type responses, and all surveys were either created or adapted for this ePortfolio with a reflection on transferable skills innovation. Qualitative data were collected through written reflections within the four-week research period, and after the four weeks, five student interviews were conducted. Through inductive analysis, the qualitative data were coded using In Vivo coding, followed by eclectic coding with rounds of descriptive and concept coding. Eventually, pattern coding was implemented, as well. Finally, from numerous student phrases, codes, categories, and subthemes, three major themes emerged: (a) positive impact on students' perception of high school preparing them for future, college or career after using ePortfolios, (b) increased engagement with ePortfolios, and (c) positive perceptions of ePortfolios. Both the quantitative and qualitative analyses induced valuable results, which will help respond to the three research questions in this action research study. When possible in this study, prior research, peer debriefing, and member checking informed and enhanced these.

CHAPTER FIVE

DISCUSSION, IMPLICATIONS, AND LIMITATIONS

Conducted in a 10th-grade world literature course in a Georgia high school, this research study examined and evaluated high school students' experiences and perceptions of college and career readiness before and after using an ePortfolio with a reflection on transferable skills. This chapter discusses the findings from the quantitative data and the qualitative data, relating the conclusions of this study to existing theories and literature. The analyses of the College and Career Scale (pre survey and post survey), Student Engagement Questionnaire (pre survey and post survey), and the ePortfolio Experience Survey (post survey), along with the student interviews (post survey) and ePortfolio reflections (during the intervention), comprised the findings of this study. Moreover, three major themes emerged from the qualitative analysis (see Table 4.6). The chapter reviews the findings of this study and is organized into the following sections: (a) discussions, (b) implications, and (c) limitations.

Discussion

To fully comprehend the outcomes of this action research, the results are situated within the broader context of existing studies that centered on the effects of ePortfolios in education and students' perceptions of college and career readiness and engagement. The current literature on reflective ePortfolios, college and career readiness, and engagement aid in the explication of the findings of this study, helping to illuminate the changes in high school students' perceptions due to the ePortfolio with a reflection on transferable

skills intervention. The discussion follows the order of research question one, research question two, and research question three.

Research Question 1: How and in what ways does implementing an ePortfolio with a reflection on transferable skills in a high school English language arts classroom impact students' perceptions of college and career readiness?

Existing research refers to college and career readiness as a descriptor of students who have attained the knowledge, skills, and disposition to succeed in a postsecondary course or a job aligned to their goals (McGarrah, 2014; NEA, 2015; Williams, 2017). Yet, many studies have revealed that the majority of high school graduates do not feel that their high schools taught them the skills that they need to be successful after graduation and that there is a predominantly negative perception of high schools adequately preparing students for their futures (Bridges, 1993; Cranmore, Adams, Wiley, and Holloway, 2019; Kinsey, 2011). Furthermore, an alarming number, over 50%, of high school students do not consider themselves on track to be college and career ready by graduation, and many report that their courses and assignments lack any relevance to helping them become successful in their futures (YouthTruth, 2017).

There is a gap in the literature concerning the effects that an ePortfolio with a reflection on transferable skills could have on students' perceptions of college and career readiness. ePortfolio research is growing (Bryant & Chittum, 2013), but the need still abounds for more data collection concerning the impact that ePortfolios could have on learning about college and career ready skills and students' perceptions. However, there is literature that supports that ePortfolios and reflections do have positive effects on learning. Generally, studies in various educational programs revealed that using

ePortfolios promoted self-assessment and increased learning (Barrett, 2007; Kilbane & Milman, 2017; Strudler & Wetzel, 2011; Turner & Simon, 2013; Fox et al., 2015).

This study implemented a reflective ePortfolio to examine its effects on high school students' perceptions of learning, specifically their perceptions of being college and career ready, as students reflected on transferable skills used within their regular ELA classwork. The reflective ePortfolio gave high school students the opportunity to consider the college and career skills that they used within their daily ELA classroom assignments. From the data collected throughout the research period, it was evident that the student-participants' perceptions of college and career readiness were impacted positively.

Through the College and Career Readiness Scale, ePortfolio reflections, and student interviews, the collection of qualitative data triangulated the quantitative data, validating the accuracy and credibility of the results of students' perceptions of college and career readiness (Creswell, 2013; Mertler, 2017). The results showed the positive impacts on students' perceptions of college and career readiness as a result of the implementation of the ePortfolio with a reflection on transferable skills.

College and career readiness perceptions. In Kinsey's (2011) study, over 5,000 high school students were surveyed, and the data showed that 62% of high school students felt that their high school failed to prepare them for college, and over 50% of high school students reported that their high school left them unprepared to enter the career field. In this study, before the reflective ePortfolio intervention, students were not as confident that high school was preparing them to be college and career ready. The results showed that the students' perceptions of being college and career ready increased

from pre intervention ($M = 3.80$, $SD = 0.52$) to post intervention ($M = 4.08$, $SD = 0.37$). The majority of all student responses increased from pre survey to post survey. In particular, the students' scores on the survey statement, "My ELA class helps me develop the skills that I need to be successful after high school" showed an increase in positive perception from pre survey ($M = 2.85$, $SD = 1.23$) to the post survey ($M = 3.70$, $SD = 0.80$). Additionally, the scores on the statement, "overall, I develop skills in core high school classes that prepare me to be successful in college and/or career," was scored lower in the pre survey ($M = 3.50$, $SD = 0.95$) than in the post survey ($M = 3.95$, $SD = 0.51$), which also indicated a substantial increase in students' overall perceptions of college and career readiness.

Furthermore, these findings supported previous assertions that reflective ePortfolios have positive effects on students' learning in terms of perceiving themselves as college and career ready (Kilbane & Miman, 2017; Romano & Schwartz, 2005; Turner & Simon, 2013). For example, in Turner and Simon's (2013) study, they incorporated digital portfolios among student-teachers and found that ePortfolios helped participants connect their learning to their educational and career goals. A much broader study, Romano and Schwartz (2005), implemented ePortfolios throughout 10 schools and found increased reflective practices among their students. More specifically, in Kilbane's and Miman's (2017) study, which spanned 29 classrooms with a year of ePortfolio implementation, ePortfolios were implemented in various ways such as showcase and reflective. With the use of all types of ePortfolios, the findings were all the same. Results indicated that "through the creation of digital portfolios . . . [students] developed self-assessment and reflection skills" (p. 105). While the ePortfolio with a reflection on

transferable skills study did not span as many classrooms nor did it last an entire school year, nonetheless, the results were the same—increased levels of self-awareness and reflection skills.

While previous researchers did not measure students' perceptions on college and career readiness as an effect, the findings in this study on ePortfolios with a reflection on transferable skills indicated that because students had increased self-awareness and reflection skills, they had increased positive perceptions of their ELA class preparing them to be college and career ready. In each interview, the student-participants commented on their new-found ability to assess and reflect on the skills that they were using within their ELA assignments as seen below:

- Interview 1: Yeah [I was more aware because of the ePortfolio] like a little worksheet; I didn't know like that it would do so much . . . [the ePortfolio] built my skills.
- Interview 2: I feel like [the ePortfolio] helped me better understand why I need to take high school classes to prepare for the future and like help me understand why I actually had to do the work that we did . . . I was learning skills I need in the future.
- Interview 3: [The ePortfolio] was really helpful because some of the skills that I wrote down for my career and future, I didn't know I needed to have, but now I know, and I've been practicing them, I feel more ready for the future.
- Interview 4: Yeah [the ePortfolio made me more aware]. So like, different skills are used in different assignments, so you could look and see which skills you were best at in your assignment.
- Interview 5: [The ePortfolio] helped me recognize things that I'm good at . . . like the things that we do here, we build on. Everything that you do, you build on it so it will help me in my future . . . even if [the ELA

assignments] didn't seem that relevant at first . . . [the ePortfolio] made me realize what I need to work on and what I'm doing right.

Student-participants repeatedly reported that they were more aware of the valuable transferable skills within their ELA assignments due to the reflective ePortfolio innovation. Additionally, every student-participant, in each of their four ePortfolio reflections, commented on the transferable skills used in the ELA activity and how those skills would help them be successful in their futures (see Appendices S, T, U, & V). The increased levels of self-assessment and reflection directed students to have a more positive perception of their ELA assignments as preparation for their future college or career goals.

Reflection on transferable skills and future. In this study, ePortfolios gave students the time to reflect on transferable skills that were considered necessary to be successful in college or career (Bennett, 2002). Researchers have long regarded reflection as a catalyst for learning as it fundamentally encourages students to learn about learning (Dewey & Boydston, 2008; Paulson et al., 1991; Pavalovich et al., 2009). In particular, in Haring's and Luo's (2016) study, they implemented ePortfolios as an initiative in their small liberal arts college. They discovered that the ePortfolio reflection helped students realize the value of their assignments. Specifically, it made students realize that within their course assignments, they developed transferable skills for the future and valued larger goals of the course. While this study was much broader, encompassing an entire college, within the ePortfolio with a reflection on transferable skills study, students also reflected on how their ELA assignments, and the course as a whole, helped them develop transferable skills that would benefit them in the future.

Within the ePortfolio, when students reflected on transferable skills used in their regular ELA classroom activities, students became reflective learners who were conscious of their strengths and weaknesses (Hallam et al., 2008). Students completed four classroom assignments that many students typically regarded as irrelevant to their future goals; then, after uploading the assignments to their ePortfolio, students followed the reflection steps (see Appendix Q) to analyze the assignment to see which skills that they used as they completed the assignment. Next, they reflected on these transferable skills and on the benefits of using and practicing these skills in terms of their future college or career endeavors.

For example, in her ePortfolio reflection, Student 14 explained that when completing her assignment, she was unknowingly practicing the following transferable skills: teamwork, communication, organization, decision-making, creativity, flexibility, and multitasking. She continued to state that all of these skills would help her reach her future goal of becoming an occupational therapist (see Figure 4.8). While this is just one example of a reflection on transferable skills, all 20 participants completed four assignments and four reflections on transferable skills. Within all 80 reflections, every participant made connections between skills used in their assignments and the skills needed to be successful in the future. After the student-participants reflected on their changed perceptions of college and career preparedness, their reflections were coded and eventually categorized into three major areas: (a) college and career skills for future, (b) reflection on college and career skills, and (c) personalized learning for future (See Table 4.6).

These reflections on transferable skills made student-participants in this study self-aware of the skills used in completing each assignment and how those skills will help them beyond the classroom. Participants were able to express their awareness of standard ELA assignments facilitating the use of skills that would help them in the future; through the ePortfolio reflections, students communicated and interpreted their thoughts in a way that is not possible in standard assessments which often limit students' response to specific content (Paulson et al., 1991; Pavalovich et al., 2009; Stefani et al., 2007; Wolf & Dietz, 1998). Students' reflections on transferable skills within their ePortfolio supported the results of the Career and College Readiness Scale as participants became aware of how their classwork promoted college and career readiness, signifying a positive change in their perceptions of college and career readiness within their high school.

Participant feedback. At the conclusion of this study, interviews were conducted as an organized way of listening to the participants and gaining more knowledge about their experiences with the reflective ePortfolio (Kvale, 1996). Utilizing the Student Interview Questions (Appendix D), I gathered detailed information on students' experiences and perceptions through open-ended questions. Specifically, in context to research question one, five students were interviewed and answered the following interview question: how did your experiences with the ePortfolio affect your awareness of the skills needed for you to be ready for your future, whether it is college or a career? These open-ended questions allowed students to expound on their perception of college and career readiness that led to the overall theme (see Figure 4.7) of *positive impact on students' perceptions of high school preparing them for the future.*

The interviews acquired genuine responses from participants provided more legitimacy to this study by allowing participants to convey their experiences and perceptions in their own words with more detail (Creswell, 2013; Guba, 1981; Shenton, 2004). For example, in Interview 1, the student stated, “Yeah, like a little worksheet; I didn’t know like that it would do so much.” The reflective ePortfolio intervention helped students see value in classwork that they typically did not find valuable, which positively impacted students’ perceptions of their high school assignments as preparing them for college or career.

In all five student interviews, students consistently reported that they had a new awareness that high school assignments were helping them practice life-long skills that would prepare them for their future in college or a career. The students’ responses within the interview showed that their reflection on transferable skills within their ePortfolio supported the results of the Career and College Readiness Scale. Student-participants reported that they had more awareness of classwork supporting college and career readiness, which indicated a positive change in students’ perceptions of college and career readiness within their high school.

Conclusion

In response to research question one, the quantitative data (College and Career Readiness Scale) was triangulated by the qualitative data (ePortfolio reflections and student interviews) and produced a strong justification of the first major theme. (Creswell, 2013; Maxwell, 2010). The convergent theme of *positive impact on students’ perceptions of college and career readiness* responded to research question one and developed from all three data sources: (a) College and Career Readiness Scale, (b)

ePortfolio reflections, and (c) student interviews. As a result of triangulation, the findings that responded to research question one show more validity (Creswell, 2013; Maxwell, 2010).

More specifically, the qualitative findings from the ePortfolio reflections and student interviews verified the quantitative results from the College and Career Readiness Scale. The quantitative survey data provided statistically significant evidence of a positive change in student perceptions of college and career readiness as the majority of students reported a more positive view on college and career ready in their post survey responses. Likewise, inductive coding of the qualitative data from the reflections and surveys produced the same theme of a positive change in students' perceptions of college and career readiness within their high school (see Figure 4.7) (Shenton, 2004). Together, these results support the overall argument that the ePortfolio with a reflection on transferable skills had a positive impact on students' perceptions of college and career readiness.

Research Question 2: How does implementing an ePortfolio with a reflection on transferable skills impact student engagement in a high school English language arts classroom?

Previous literature reports that ePortfolios consistently have positive effects on learners, and common benefits of implementing ePortfolios have included higher levels of student engagement. For example, in Fuller's (2017) study on ePortfolios for formative assessment, she found that within biology courses, ePortfolios increased student engagement. When using ePortfolios, the biology students interacted with the course material more and completed work more consistently. Likewise, this study on reflective

ePortfolios also found that the ePortfolio with a reflection on transferable skills led to increased engagement in a variety of ways, including more participation and more completed work.

In this study, in response to research question two, specific quantitative and qualitative data measured students' perceptions of engagement to see if the ePortfolio with a reflection on transferable skills increased student engagement in their ELA classroom. Existing research concerning student engagement in context to ePortfolios used both quantitative and qualitative measures to gauge engagement through surveys and interviews (Henrie, et al., 2015; Mastrorilli, 2016; Rashid & Asghar, 2016).

The Student Engagement Questionnaire provided feedback from students for genuine evaluation (Henrie et al., 2015; Mastrorilli, 2016). In addition to the survey, the reflections and interviews helped determine the increase in various forms of engagement (Fredricks et al., 2011). From the data collected throughout the research period, it was clear that the student-participants felt that they were more engaged in their ELA classroom as a result of the ePortfolio with a reflection on transferable skills intervention as the qualitative data produced the major theme of *increased engagement with ePortfolios*. While the Student Engagement Questionnaire collected quantitative data, the ePortfolio reflections and student interviews collected qualitative data; the collection of quantitative and qualitative data triangulated the results of the reflective ePortfolio's effects on engagement to be accurate and credible reports (Creswell, 2013; Mertler, 2017). The Student Engagement Questionnaire, along with the ePortfolio reflections and the student interviews, measured the four types of engagement: (a) agentic, (b) behavioral, (c) cognitive, and (d) affective. In this study, all data revealed positive

impacts on student engagement as a result of the implementation of the ePortfolio with a reflection on transferable skills.

Student engagement questionnaire. In the Student Engagement Questionnaire, students self-reported their feelings on agentic, behavioral, cognitive, and affective engagement before and after the reflective ePortfolio intervention. Reeve and Tseng (2011) created the Student Engagement Questionnaire, which consisted of a four-part typology of engagement that included agentic, behavioral, cognitive, and affective subtypes. The Student Engagement Questionnaire had been successfully utilized in studies and showed high internal reliability ($\alpha=.88$) (Reeve & Tseng, 2011). Initially, the questionnaire consisted of 22 statements, but it was condensed to 11 questions to adapt to this study. Statements that were not relevant to the ELA course were removed. Reliability scores were still acceptable when the survey was adapted for this study. Within the 11 items, all four types of engagement subscales were still included. Students responded via a Likert-scale to several questions per each subscale of agentic, behavioral, cognitive, and affective.

The reflective ePortfolio intervention encouraged student engagement within all four types, as evidenced in the students' average engagement. Agentic, behavioral, cognitive, and affective engagement scores all showed a slight increase ($M = 3.32$, $SD = 0.56$) to post survey ($M = 3.54$, $SD = 0.62$) (See Table 4.2). However, the distribution of the post survey data did not meet the normality assumption for a dependent t-test. Therefore, the non-parametric Wilcoxon Signed Ranks Test compared the pre survey and post survey median scores for the composite engagement scale as well as pre survey and post survey median scores for all four subscales.

The first Wilcoxon Signed Ranks Test evaluated whether students' overall engagement changed from pre intervention to post intervention. Although the mean of ranks indicating higher post survey scores was higher ($M = 10.73$) than the mean of ranks indicating higher pre survey scores ($M = 5.83$), this difference was not statistically significant. The Wilcoxon Signed Ranks Tests did not indicate statistically significant changes in median self-rating prior to and after the reflective ePortfolio intervention in any of the four engagement categories which included agentic ($Mdn\ Pre=2.50$; $Mdn\ Post = 3.00$), behavioral ($Mdn\ Pre = 4.00$; $Mdn\ Post = 4.00$), cognitive ($Mdn\ Pre = 3.67$; $Mdn\ Post = 4.00$), nor emotional ($Mdn\ Pre = 3.00$; $Mdn\ Post = 3.00$). While none of the results from the Wilcoxon Signed Ranks Test were significantly different, there was an increase in engagement overall, and particularly, within agentic and cognitive engagements.

The slight increase in engagement does align with previous research that the implementation of ePortfolios fosters more student engagement (Hilyer & Ley, 1996; Pelliccione & Raison, 2009; Wade, Abrami, & Sclater, 2005). In Hilyer's and Ley's (1996) study, after implementing an ePortfolio with their participants, they found that engagement and motivation increased due to the ePortfolio providing students autonomy over and responsibility for their assignments. Pelliccione and Raison (2009) reported that the pre-service teachers in their study also had an increase of engagement after using an ePortfolio as their participant became "directly engaged" with their work (p. 273). Similarly, in Abrami's and Sclater's (2005) study, they implemented ePortfolios in a middle school and found that the practice of creating an e-portfolio encourages students to become more engaged in their work. In the ePortfolio with a reflection on transferable skills study, students also expressed that the ePortfolio experience made them more

engaged than before due to the reflections (Interview 5), technology use (Interview 2 & Interview 4), and personalization (Interview 3).

While the increase in engagement was not statistically significant, the qualitative findings provided some explanation for this lack of significant change. While four of the five students who were interviewed expressed that they were more interested in their ELA class after the reflective ePortfolio intervention, there was one student who expressed that her engagement level did not change. In Interview 1, when asked if there was a change in her interest in the class after the ePortfolio intervention, the student replied that “there really wasn’t a change because I was interested either way because of the way that you teach certain things and um yeah.” The student in Interview 1 explained that her engagement level did not change because she was already interested in the class, so she was still engaged after the ePortfolio intervention. This response from one student could explain the lack of significant change found from the quantitative survey results.

ePortfolio reflections on engagement. In this study, ePortfolios gave students the time to reflect on engagement in their ELA class. Previous studies revealed that reflecting on the learning process had positive effects on students (Cordie et al., 2019; Kilbane & Milman, 2017; Weber & Myrick, 2018). Cordie, Sailors, Barlow, and Kush (2019) implemented ePortfolios in graduate and undergraduate college courses, and they observed that students were the most engaged during the reflection component, which helped students realize their personal goals. In Kilbane’s and Milman’s (2017) study, increased engagement was attributed to ePortfolios giving students the means to reflect on their successes, failures, preferences, and aversions about an assignment or a course. Weber and Myrick (2018) investigated the use of ePortfolios with 11 undergraduate

college students and found that the reflections increased engagement as learning and achievement became more visible to students. Dissimilarly to the ePortfolio with a reflection on transferable skills study, these studies focused on post-secondary students; however, there were many similarities within this study as the 10th-grade student-participants also experienced engagement due to reflections and the awareness of their personal goals and achievements.

Within this ePortfolio with a reflection on transferable skills innovations, as students followed the reflection steps (see Appendix Q), a total of 22 comments were made concerning agentic, emotional, cognitive, and behavioral engagement, and all statements reflected increased engagement. As previous studies have shown, increased engagement is a benefit of ePortfolios (Hilyer & Ley, 1996; Wade, Abrami, & Sclater, 2005). Below is an example of the positive feedback from students as they reflected and wrote about their engagement in their ePortfolio:

- | | |
|-------------|---|
| Student 8: | (Future goal was to be a chef) The ePortfolio motivated me to do my work because I actually knew it was going to like help me in the future. (agentic engagement) |
| Student 12: | (Future goal was to be a music producer) Because I could see my goals, I completed all my work in class. (cognitive engagement) |
| Student 4: | (Future goal was to be a psychologist) I actually had fun doing my assignment and reflection. (emotional engagement) |
| Student 16: | (Future goal was to be a media specialist) I worked with others to do my work. (behavioral engagement) |

Overall, there was a positive connection between students and learning during this reflective ePortfolio intervention as measured by the students' feedback concerning their completion of work, goal-setting, and enjoyment of the reflection. In this particular study, all 80 reflections were holistically coded and coded repeatedly; the students' thoughts on their increased engagement eventually created four categories (agentic, emotional, cognitive, and behavioral), which led to the major theme of *increased engagement with ePortfolios* (see Figure 4.7).

Student-participants expressed their thoughts on their experiences completing their assignments when writing their ePortfolio reflections. Once again, through the ePortfolio reflections, students expressed themselves in a manner that is not possible in many other types of assignments and assessments (Paulson et al., 1991; Pavalovich et al., 2009; Stefani, Manson, & Pegler, 2007; Wolf & Dietz, 1998). Students' reflections within their ePortfolio supported the results of the Student Engagement Questionnaire as participants consistently expressed a feeling of being more engaged, indicating an increase in student engagement.

Participant feedback. When being interviewed, the participants had the opportunity to give more detailed feedback on any changes in feelings, attitudes, and behaviors, providing information on all types of engagement (Saldaña, 2013; Patton, 2002; Madden, 2010). During the interviews, students were asked to reflect on their learning, which is an integral part of education (Dewey & Boydston, 2008; Paulson et al., 1991; Pavalovich et al., 2009). Specifically, in context to research question two, students answered several questions like the following: how did your experiences with the reflective ePortfolio impact your participation in class? Students were given opportunities

to answer these questions and to give any examples or clarifications to explain their experiences wholly. Participants consistently responded positively towards questions on engagement. Below is an example of the positive feedback concerning engagement from students as they spoke about their experiences during the interviews.

- | | |
|--------------|--|
| Interview 1: | I was able to make my work more personal. (agentic engagement) |
| Interview 2: | I feel like I got more work done. (cognitive engagement) |
| Interview 3: | I was more interested in class and not bored. (emotional engagement) |
| Interview 4: | I was working more with other people. (behavioral engagement) |

As described in the examples above, students expressed positive effects concerning engagement; in all five interviews, students used the word “more” (Interview 1, Interview 2, Interview 3, Interview 4, & Interview 5) to describe their increased levels of engagement as an effect of the ePortfolio innovation.

As each interview was analyzed and coded, four categories emerged (see Figure 4.7). The first category was agentic, which involved personalization, modification, or enriched learning (Reeve, 2012). Students described themselves as proactive and intentional in their education, displaying agentic engagement tendencies (Reeve, 2012). There were 12 instances in the interviews in which various students expressed increased motivation.

The next category was behavioral engagement, which was shown through perceptible actions that illustrated students' involvement in learning (Fredricks et al., 2011; Henrie et al., 2015; Patall, 2016). Within the student interviews, there were seven instances in which students commented on their behavior by stating that they were more participatory because of the reflective ePortfolio intervention. The next category was cognitive engagement, which was the attention and effort that learners gave to understanding their classwork (Fredricks et al., 2011; Henrie et al., 2015; Patall, 2016). Two instances of cognitive engagement were reported during the interviews.

Lastly, affective engagement was described by the students, such as having positive experiences with peers and educators (Fredricks et al., 2011; Henrie et al., 2015; Patall, 2016). There were 12 instances in which interviewees recalled that they were more interested and more engaged. As described above, the majority of students reported that they were more engaged when using ePortfolios. Certainly, this qualitative data, which aligned with the quantitative survey data, further emphasized the major theme of *increased engagement with ePortfolios*.

However, one student-participant, in Interview 2, mentioned that while she did complete all of her assignments, completing her work in class “depended on [her] mood that day.” While only one student mentioned this outside factor that affected her engagement, I felt it was important to mention that students' moods, along with other unknown outside factors, affect students' learning (Reschly et al., 2008; Carter et al., 2007). Even though students' experiences may be affected by their mood or other outside factors, overall, students reported that the reflective ePortfolio intervention increased their engagement.

Conclusion. As a response to research question two, the quantitative data (Student Engagement Questionnaire) was triangulated by the qualitative data (ePortfolio reflections and student interviews) and formed valid evidence to support the major theme of *increased engagement with ePortfolios* (Creswell, 2013; Maxwell, 2010). As a response to research question two, this convergent theme emerged from the four categories and subscales of the corresponding data: agentic engagement, behavioral engagement, emotional engagement, and cognitive engagement. The quantitative data did reveal an increase in student engagement overall, but the inductive analysis (see Figure 4.7) revealed more insightful information from student-participants in terms of their feelings of engagement. (Shenton, 2004). Both the quantitative and qualitative data supported the argument that the ePortfolio with a reflection on transferrable skills had a positive impact on students' engagement.

Research Question 3: What are students' perceptions about using an ePortfolio with a reflection on transferable skills in a high school English language arts classroom?

Existing research includes a wide range of definitions for the ePortfolio, but, in this study, an ePortfolio was considered as an individual's online space for digital artifacts that show the effort, progression, and accomplishments towards learning, specifically with a reflection on the importance of transferable skills from the classroom to future college or career (Paulson, Paulson, & Meyer, 1991; Welch & Barlex, 2004; Yancey, 1993). Concerning research question three, this study explores students' perceptions of using the ePortfolio with a reflection on transferable skills. Even though there are more and more researchers conducting studies that involve the ePortfolio, existing research is sparse in terms of students' perceptions (Bryant & Chittum, 2013).

Nevertheless, in the existing studies, the majority of data on ePortfolios suggests that students typically have a positive perception of the ePortfolio, like in Cambridge's study in 2001, which reported that students perceive ePortfolios to be a positive addition to their learning. Correspondingly, this research on ePortfolios with a reflection on transferable skills reported that students had positive experiences with the ePortfolio innovation. Studies have revealed that students enjoy the ePortfolio for many reasons like user-friendly technology, ease of collaboration, ability to self-pace, etc. (Mead, 2016; Shepherd & Hannafin, 2011), which were also reported in this study. This study implemented the reflective ePortfolio, and at the conclusion of the study, examined students' perceptions of their ePortfolio experience as used in their ELA course. From the quantitative and qualitative data collected in this study, it was clear that participants had positive perceptions of the reflective ePortfolio.

Through the ePortfolio Experience Survey, ePortfolio reflections, and student interviews, students expressed the various ways in which they enjoyed using the ePortfolio. The qualitative data, which were the ePortfolio reflections and student interviews, gave rich, detailed information about students' experiences, producing the major theme of *positive perceptions of ePortfolios*. Also, this qualitative data triangulated the findings of the quantitative data, the ePortfolio Experience Survey (Creswell, 2013; Mertler, 2017). Both the qualitative and quantitative data revealed that students had positive perceptions of using the ePortfolio with a reflection on transferable skills.

Positive self-report of ePortfolio experience. The ePortfolio Experience Survey in this study was informed from a review of the Australian Government Department of Education and Training's Student Experience Survey (SES) (2016) for Australian college

students to express their perceptions of course experiences. At the conclusion of the study, high school students in this study took the ePortfolio Experience Survey (Appendix C) as a way to measure their experience with the ePortfolio intervention. The survey consisted of statements describing students' experiences with the ePortfolio intervention. Students responded to a total of 13 comments like, "The use of the ePortfolio led to more personalized learning" and "The ePortfolio workshop was a useful learning experience" (Appendix C). Students rated their responses on a one to five response Likert-scale.

After the ePortfolio intervention, the ePortfolio Experience Survey was administered online and aligned to research question three (Table 3.2). There were no previous reports of reliability. The content validity was established through expert reviews. The reliability coefficient (Cronbach's alpha) was observed as .94. Students' perceptions of their experience using the ePortfolio were positive ($M = 3.80$, $SD = 0.58$), which indicated that, overall, students perceived the ePortfolio as a helpful learning tool (see Table 4.3).

Of the 11 statements, students scored these items the highest: (a) the use of the ePortfolio was relevant to my education ($M = 3.85$), (b) the use of the ePortfolio included helpful instruction and feedback from my teacher ($M = 3.90$), (c) the use of the ePortfolio included support from my teacher ($M = 3.95$), (d) the ePortfolio included appropriate computer equipment to complete tasks ($M = 4.05$), and (e) I could easily use my ePortfolio ($M = 3.90$). From building the ePortfolio to uploading their assignments, student-participants agreed that the experience was a positive, relevant, and helpful addition to their education. None of the median scores of the student responses fell below

a 3.45, which indicated students enjoyed using the ePortfolio. Undoubtedly, students expressed that they had a positive perception of using the ePortfolio with a reflection on transferable skills.

Participant feedback. The ePortfolio Experience Survey's high scoring results were not surprising considering the high school participants repeatedly mentioned in their reflections, and even more so in their interviews, that the ePortfolios provided a positive experience for them. In this study, the qualitative data from the ePortfolio reflections and the student interviews supported students' positive experiences, as reported in the ePortfolio Experience Survey. Again, for the final research questions, student-participants were asked to reflect on their learning process to become more conscious of their experiences (Dewey & Boydston, 2008; Paulson et al., 1991; Pavalovich et al., 2009). The ePortfolio reflections allowed students to make real insights about the skills used within their assignments, and the student interviews gave a plethora of data that supported the survey findings and created the major theme of *positive perception of ePortfolio* (see Figure 4.7).

Participants enjoyed using technology and making their work personal. Creating their ePortfolios via the online application Google Sites, students used technology to personalize their ePortfolio. Many recent studies have found that learners have positive experiences with computer-assisted instruction as it can encourage students to personalize their work, among other benefits (Mead, 2016; Pane et al. 2017; Shepherd & Hannafin, 2011). Similarly to participants in recent ePortfolio studies, participants of this reflective ePortfolio innovation also expressed positive experiences when using technology with direct statements such as, "I like technology" (Interview 1) and "I liked building [a

website] and the technology aspect of it” (Interview 2). Furthermore, all five students who were interviewed commented that using the ePortfolio made their assignments more personal. Overall, students reported positive feelings towards using technology for the ePortfolio.

Additionally, most current research considered reflective ePortfolios as means for profound learning where students can analyze highlights of their education with new understanding (Long, Hallam, Creech, Gaunt, & Robertson, 2012; Nguyen, 2013; Witherspoon & Higashi, 2016; Yancey, 2009). Likewise, participants interviewed in this study reported that the reflective ePortfolio made them aware of the skills that they were using within their ELA assignments and that the reflection helped them understand the assignments on a deeper level. All five participants who were interviewed explicitly expressed that they found the ePortfolio to be helpful and positively affect their education. All five interviewees also reported that they believed that the ePortfolio would be helpful beyond the ELA classroom and in various subjects.

As described above, students found using the technology for ePortfolios to be positive. However, in Interview 1, while the student said that she liked technology, she also mentioned an issue with the school’s Wi-Fi restriction, which blocked certain images and videos. The participant stated, “The only thing is that our school blocked some technology features like uploading my image that I had to do at home” (Interview 1). As a result of the Wi-Fi restriction, the student had to spend some time outside of class to upload an image to her ePortfolio. While this was the only statement that was not entirely positive, it was necessary to mention that the school’s Wi-Fi restriction was the only source of student feedback that served as disconfirming evidence in regards to students’

positive experience using the reflective ePortfolio (Lopez & Rodriguez, 2009; Spendlove & Hooper, 2006). Furthermore, she expressed that her overall feelings were positive with regard to using technology during the study. It is important to note that participants' experiences could be influenced by the outside factor of the school's Wi-Fi restriction in relation to using technology and in relation to their perceptions of ePortfolios.

Predominantly, students reported that they enjoyed the technology aspect of the reflective ePortfolio intervention.

Conclusion. In response to research question three, the quantitative data (ePortfolio Experience Survey) and the qualitative data (ePortfolio reflections and student interviews) were triangulated, producing a valid justification of the third major theme, *positive perception of ePortfolios* (Creswell, 2013; Maxwell, 2010). The emerged theme of *positive perception of ePortfolios* (see Figure 4.7) responded to research question three and was supported by qualitative and quantitative data alike. The quantitative ePortfolio Experience Survey showed students' overwhelmingly positive experiences with the reflective ePortfolio. Similarly, the inductive coding of the ePortfolio reflections and student interviews led to positive categories and themes. All of these results support the overall argument that students have a positive perception of the ePortfolio with a reflection on transferable skills.

Implications

As a result of this study, three levels of implications arise in context to me, my peers, and scholarly practitioners and researchers (Kumar & Dawson, 2014). The following types of implications are considered: (a) personal implications, (b) high school classroom instruction implications, and (c) future research implications.

Personal Implications

From conducting this research, I learned several personal lessons that will help me as I continue and further my career as an educator. The most insightful lessons that I learned include enhancing my knowledge of (a) literature, (b) quantitative and qualitative analysis, and (c) sharing findings.

Enhancing my knowledge of literature. Before conducting this action research on ePortfolios with a reflection on transferable skills, I had not researched any studies or any information on the use of ePortfolios in educational programs or students' perceptions of college and career readiness. While I had created and used ePortfolios in previous courses as a student, I had never used an ePortfolio in my classroom as an instructor. I did not have any experience with reflections on transferable skills either. Conducting the literature review on ePortfolios with a reflection on transferable skills and students' perceptions of college and career readiness, extended my academic knowledge on subjects that were beneficial to myself as an educator and to my students. I discovered that it was not only students in my high school who were complaining about not seeing the relevance in classwork, but the majority of students surveyed by various researchers also reported a negative perception of high schools preparing students for college or career (Bridges, 1993; Cranmore, Adams, Wiley, and Holloway, 2019; Kinsey, 2011; Reid & James, 2008; YouthTruth, 2017).

Additionally, I learned that overall ePortfolios have led to positive impacts on student learning in various educational programs (Abd-Wahab, 2016; Barbera, 2009; Goodine, 2010). Lastly, I discovered that there is a lack of literature in terms of reflective

ePortfolios on transferable skills and students' perceptions of college and career readiness (Bryant & Chittum, 2013; Kahn, 2014).

Finding the existing literature on subjects related to ePortfolios, college and career readiness, transferable skills, and engagement was a challenge. My technology skills improved as I learned how to access and navigate large databases like EBSCOhost and conduct simultaneous advanced searches in databases like *ERIC*, *Academic Search Complete*, *Computer Source*, *Education Source*, *Professional Development Collection*, and *Teacher Reference Center*. The extensive searches developed my analytical skills, and I continued to narrow my topics and find the most relevant search engine results. These computer database search skills will undoubtedly help me as I continue to research in the future.

Enhancing my knowledge of quantitative and qualitative analysis. Through a mixed-methods approach, this study involved both quantitative measures and qualitative measures to triangulate findings for each of the three major research questions (Creswell, 2014; Mertler, 2014). When analyzing the qualitative data, I was able to strengthen my English language skills as I took participants' words and phrases and coded and categorized those words into concepts and themes (Mertler, 2017). Even as an English language arts teacher, coding words and phrases to reveal more significant concepts and themes was a challenging process, but the qualitative analysis was somewhat in my realm of prior knowledge and experience. Regularly in my classroom, I read high school students' thoughts and ideas within reflections and essays. While reading and analyzing students' words was not new to me, the extent to which I coded was new and challenging. Typically, I assessed student's work with traditional rubrics, but during this action

research project, I used a new application, Delve, to process several different types of coding like In Vivo and descriptive coding. I took days, weeks, and even months to mull over the coding process.

While I was somewhat in my element during the qualitative analyses, I was entirely out of my element for the quantitative analyses. As an English instructor, I inherently loathe numbers, formulas, and statistical tests. As I cleaned up my quantitative data in three different excel sheets, I initially began to panic as I thought about the next steps to analyze these numbers. While the quantitative data were intimidating at first, during this action research, with the help of my peers and professors, I began to understand the foundations of quantitative analysis, such as how to use the JASP application and when to run a paired t-test. As I continue to conduct and analyze research in the future, I now have more advanced qualitative analysis skills and have the foundations for quantitative analysis as well.

Enhancing my knowledge of sharing findings. Perhaps one of the most important facets of research, sharing one's findings, is of utmost importance as the primary purpose of any research is that others can learn from the study. During my research, I communicated my findings with my peers and professors to conduct peer debriefings to ensure validity in my research and findings. I also conducted member checking to not only communicate findings but as a way to confirm accurate data collection.

Furthermore, as a member of my high school's technology team, I shared my findings with my peers. Since the technology team is in charge of leading technology professional developments, we have already discussed the possibility of ePortfolio

workshops being a future professional development option for teachers in our high school. Since my research showed that students believed that ePortfolios with a reflection on transferable skills would be beneficial in any subject matter in any classroom, all of my peers could benefit from reviewing my findings. In addition, as I have become more knowledgeable on the importance of ePortfolios with a reflection on transferable skills, I can share this information with my future students to allow them to find value and relevance in classwork as they reflect on and discover all of the transferable skills used within each classroom assignment.

High School Classroom Instruction Implications

This study revealed several implications that would benefit all classrooms, not just the ELA classroom. From conducting this research, I learned several lessons that will help my peers and me as high school educators. The most insightful lessons that I learned included enhancing classroom instruction in terms of implementing an (a) ePortfolio, (b) lesson on transferable skills, and (c) reflection on transferable skills.

Implementing an electronic portfolio. While many teachers have embraced the technological advances of the 21st century, many do not use technology often in their classroom, if at all. From my own experiences, I have seen the value of allowing and encouraging students to use technology in the classroom. Furthermore, research supported the use of technology in the high school classroom because of many factors that promote student engagement, such as computer-assisted instruction and self-paced instruction, among other benefits (Mead, 2016; Pane et al. 2017; Shepherd & Hannafin, 2011).

In addition to existing research, this study's findings showed that ePortfolios were a positive experience for all students. Students expressed that they enjoyed the ePortfolio intervention due to personalized learning, the use of technology, and the positive impacts on learning. Not only did the reflective ePortfolios benefit students, but they benefited the instructor since it was a different way to hear students' thoughts on assignments and their process of creating and completing an assignment (Paulson et al., 1991; Pavalovich et al., 2009).

Students in this study reported that they benefited from technology use and, specifically, the electronic portfolio which was housed in Google Sites. Without the ability to implement the ePortfolio, students would have very well responded quite differently, and even negatively to the implementation of a traditional paper portfolio. My ELA students typically resisted assignments that required hand-written materials, and if given a paper ePortfolio, students may have had a negative predisposition towards the innovation. Specifically, student-participants frequently referred to technology as fun and beneficial. Additionally, since the focus of the innovation was on transferable skills, it was necessary to include one of the critical 21st-century skills of using technology.

ePortfolios also gave teachers a more genuine way to provide feedback to students as opposed to traditional assessments (Stefani et al., 2007; Wolf & Dietz, 1998). As a result of implementing a reflective ePortfolio, teachers can more easily see a student's strengths, weaknesses, and interests to help guide the student in their high school course and beyond.

Implementing a lesson on transferable skills. Secondly, I learned from my research that students are mostly unaware of transferable skills and how to define them.

In this study, students participated in a lesson on transferable skills (Appendix X). In this lesson, students learned the definition of transferable skills and the skills that are most sought after by employees (Bennet, 2002). Students were able to discuss which skills were most significant to employers (Bennett, 2002) and, also, students were able to research which transferable skills would most help them in their future goals in college or career. This lesson on transferable skills would benefit any classroom and any subject according to the feedback from the participants in this study.

Implementing a reflection on transferable skills. Students in this study reported that they benefited from having time to reflect on their assignments and, specifically, which skills were used in each assignment. In reflecting in this way, the reflective ePortfolios benefited students because they were able to see that their classwork had relevance to their future goals (see Figure 4.7). Many teachers are guilty of giving an assignment and then either forgetting or not having time to discuss the importance of the assignment or the relevance of the assignment to students' future goals. While it would be helpful for teachers to mention the transferable skills used within an assignment, it would be impossible for the teacher to know each of her students' personal goals and the skills they need to practice to help them reach those goals. However, by allowing students time to think about their achievements and to reflect on skills used within assignments, students were able to see that high schools are helping them prepare for their future, giving the students the skills that they need to be college or career ready (see Appendix R).

Future Research Implications

The findings of this research propose implications for other scholarly researchers and practitioners who desire to carry out their research on ePortfolios, reflection on transferable skills, or engagement. Recommendations for further research include the following:

- Expanding this study to include high school students in other high schools. By including students in various high school settings, the researcher would be able to compare findings from across various settings to give a more extensive and better representation of high school students' perceptions (Peers, 1996). For example, this study could be conducted in various ELA classrooms in the county, state, nation, and even globally.
- Expanding this study to include high school students in other courses besides English language arts. For example, this exact study could be carried out in a history, math, or science classroom to analyze the impact of ePortfolios with a reflection on transferable skills at a broader level. Additionally, implementing this study in various subjects would either support or disprove participants' claims in this study that the ePortfolio would be beneficial across all subject matters (Mason, 2010).
- Replicating this study in several ELA class periods at the same time would give the researcher a more significant number of participants. For example, instead of only one period of ELA student-participants, the researcher could enlist participants from all four ELA courses. Additionally, the researcher could extend the research of several school years to evaluate changes that might occur for a

more extended period. A larger-scale study would include more students with more diverse learners, which could also affect findings (Nese, Lai, & Anderson, 2013).

- Continuing this exact study with the same participants in their following year of high school with a new ELA teacher. A continuation of this study with the same students would give the researcher the ability to see the lasting impacts of the ePortfolio with a reflection on transferable skills intervention and would allow the researcher to see the intervention conducted by a different instructor (Cochran, 2010).

In all, research on ePortfolios with a reflection on transferable skills is lacking among high school students (Bryant & Chittum, 2013). Pursuing these future research options would help fill the gap in the metaphorical bookshelf by adding more academic research on students' perceptions of college and career readiness, engagement, and other learning experiences as a result of the reflective ePortfolio.

Limitations

As in all studies, this study had several limitations that should be mentioned. These confines include the following limitations: (a) the number of participants, (b) the research-created instruments, and (c) the positionality of the researcher.

Limited Number of Participants

Participants in this study did not span an entire grade level or throughout several districts, but instead, participants were limited to one 10th grade English language arts class, in one school, within one district. There was only a small sample size ($n = 20$) of 10th-grade world literature students. Furthermore, there was not a control group to

compare to the participant group, which is a further limitation (Metz & Page, 2002; Reeves & Oh, 2017). Because of the action research method used, only implications for this study were shared, and this study's data cannot determine causality or generalities (Johnson, 2005; Manfra & Bullock, 2014; Mertler, 2017). The findings of this study represent the 20 participants, and any attempt to apply the findings to other students, classrooms, or contexts is made only by the reader's interpretations. Within the specific context of the study, future 10th-grade world literature students had the potential to benefit from the reflective Portfolio innovation.

Research-Created Instruments

Secondly, the measures used in this study presented limitations. The College and Career Readiness Scale (Bennett, 2002), Student Engagement Questionnaire (Reeve & Tseng, 2011), ePortfolio Experience Survey (SES, 2018), and interview protocol questions (Creswell, 2014) were based on prior studies and research. These research-created measures were considered a limitation because each instrument had to be adapted to fit the content of this research study (Creswell, 2014; Mertler, 2017). At times, some students needed help to understand the meaning of the statements within the surveys and the interview questions, so I am unsure if students always accurately represented their feelings in their responses.

Positionality of Researcher

Finally, as the instructor in the ELA classroom, my positionality is a limitation (Creswell, 2013; Mertens, 2009). Although all of the students knew that participation was optional, many could have felt obligated to participate as I was in a position of authority over them. Furthermore, I continually asked participants to be honest when providing

feedback and reflections. I reminded students that it was reasonable to leave negative feedback because researchers can learn from failed attempts just as much as successful ones. While students gave almost all positive feedback in this reflective ePortfolio intervention, my role might have influenced some students in this study as their teacher and the researcher.

Closing Thoughts

A common complaint by high school students was that classwork would never be relevant outside of the high school setting, and as a result of this perception, students were often disengaged in class and viewed many of their high school courses to be a waste of their time (YouthTruth, 2017). Unless they are taught about transferable skills, many high school students do not understand the concept of transferable skills. They are unaware that they use transferable skills every time they participate in their ELA class. In most high schools, students are not given the time to reflect on their assignments. Thus, they do not realize which transferable skills were used within the assignments or how those skills are relevant beyond high school to help them become successful in college or career (Carnevale et al., 2010). Studies have shown that high school students do not consider themselves to be college or career ready (Burke et al., 2005). Since schools typically do not give lessons on transferable skills or time for students to reflect on their coursework, high school students continue to be disengaged because of their perception that classwork is irrelevant to their future goals.

The ePortfolio, with a reflection on transferable skills, attempted to help students understand how their high school ELA course was preparing them to be successful adults and how each assignment elicited the use of transferable skills that would benefit them

beyond graduation. For students to find relevance in their classwork, students needed a lesson on transferable skills in context to their present and future, and they needed time to reflect on transferable skills used within each ELA assignment. The implementation of ePortfolios with a reflection on transferable skills had the potential to help engage ELA learners and foster a positive perception of college and career readiness (McGuinness, 2015; Mead, 2016; Rogers, 2001; Shepherd & Hannafin, 2011).

This study sought to determine if the use of an ePortfolio with a reflection on transferable skills would have an impact on high school students' perceptions of college and career readiness and an impact on their engagement in their ELA course. Again, with the reflective ePortfolio implementation, the belief was that if students are given the time and resources to understand the concept of transferable skills, to reflect on how transferable skills are used within a class assignment, and to reflect on how transferable skills related to their future goals, then it would positively impact students' perceptions on college and career readiness and their engagement in class.

The findings of this study indicated that the ePortfolio with a reflection on transferable skills positively impacted 10th-grade high school students' perceptions of college and career readiness and increased their engagement in their ELA class at the research site. Also, the student-participants in this study viewed the reflective ePortfolio innovation as a valuable educational tool. As a result, implementing the ePortfolio with a reflection on transferable skills within the 10th grade ELA classroom created more engaged students who positively perceived high school as helping them become college and career ready.

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APPENDIX A

COLLEGE AND CAREER READINESS SCALE

Instructions for Respondents: Please mark how strongly you feel about each statement.

1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree

#1 After high school, I plan on

-going to college

-starting a career after high school

-neither

#2 My ELA course helps me develop the skills I need to be successful after high school.

#3 I am confident that I can communicate in a professional manner.

#4 I have established a strong work ethic to complete tasks.

#5 I feel confident that I can successfully collaborate with others.

#6 I can clearly express my thoughts to others when I write.

#7 I have strong technical skills when using the computer to research or complete tasks.

#8 When using a new computer program or website, I can quickly learn how to navigate the program/site.

#9 I have a personal desire to improve my grades.

#10 I recognize my own strengths and weaknesses.

#11 Overall, I develop skills (i.e., organization, problem-solving, etc.) in core high school classes that prepare me to be successful in college and/or career.

RESEARCH-BASED FROM TRANSFERABLE SKILLS NEEDED TO BE COLLEGE AND CAREER READY
BENNET (2002)

Thank you for your participation in this voluntary survey. You may withdraw from the survey at any time. Your responses are anonymous, and your role is limited to the completion of this survey. If you have any questions regarding this research, then you may contact Ms. Kristin, the principal investigator, at any time.

APPENDIX B

STUDENT ENGAGEMENT QUESTIONNAIRE

Instructions for Respondents: These questions ask you about your engagement in class.

Please mark how strongly you feel about each statement.

1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree

1. During class, I express my preferences and opinions (agentic).
2. I let my teacher know what I'm interested in (agentic).
3. The first time my teacher talks about a new topic, I listen very carefully (behavioral).
4. I work hard when we start something new in class (behavioral).
5. I pay attention in class (behavioral).
6. When we work on something in class, I feel interested (emotional).
7. I enjoy learning new things in class (emotional).
8. When doing schoolwork, I try to relate what I'm learning to what I already know (cognitive).
9. When I study (learn/work on assignments), I try to connect what I'm learning with my own experiences (cognitive).
10. As I study, I keep track of how much I understand, not just if I am getting the right answers (cognitive).
11. When I am in class, I feel curious about what I am learning (emotional).

ADAPTED REEVE, J., & TSENG, C.-M. (2011). STUDENT ENGAGEMENT QUESTIONNAIRE [DATABASE RECORD].

Thank you for your participation in this voluntary survey. You may withdraw from the survey at any time. Your responses are anonymous, and your role is limited to the completion of this survey. If you have any questions regarding this research, then you may contact Ms. Kristin, the principal investigator, at any time.

APPENDIX C

EPORFOLIO EXPERIENCE SURVEY

Demographic Information:

Age:

Gender: _____ Male _____ Female

Ethnicity: Black/African American _____ Hispanic/Latino _____ White/Caucasian _____ Other _____

Instructions for Respondents: These questions ask you about your experiences using the ePortfolio with a reflection on transferable skills during class. Please consider the entire instruction and assignments over the last 4 weeks as you answer these questions. Please mark how strongly you feel about each statement.

1 = Strongly disagree; 2 = Disagree; 3 = Agree and Disagree Equally; 4 = Agree; 5 = Strongly agree

1. The use of the ePortfolio led to more personalized learning.
2. The use of the ePortfolio provided well-structured and focused learning.
3. The use of the ePortfolio was relevant to my education.
4. The use of the ePortfolio helped me learn course content.
5. The use of the ePortfolio included helpful instruction and feedback from my teacher.
6. The use of the ePortfolio enhanced my learning overall.
7. The use of the ePortfolio included support from my teacher.
8. The use of the ePortfolio included connections to course content.
9. The use of the ePortfolio included additional resources to aid my learning.
10. The ePortfolio included appropriate computer equipment to complete tasks.
11. I could easily use my ePortfolio (i.e., add reflections to my ePortfolio).
12. The ePortfolio Workshop was a useful learning experience.
13. The instruction on transferable skills was useful when completing my learning tasks in my ePortfolio.

Adapted from SES, (2018).

Thank you for your participation in this voluntary survey. You may withdraw from the survey at any time. Your responses are anonymous, and your role is limited to the completion of this survey. If you have any questions regarding this research, then you may contact Ms. Kristin, the principal investigator, at any time.

APPENDIX D

STUDENT INTERVIEW QUESTIONS

Interviewer opening: Welcome, please have a seat. Before we begin, I wanted to let you know that this interview session is recorded for research purposes for the study in which you have chosen to participate. Before we begin, please state your participant ID numbers.

Now, I would like to ask you a few questions about your experience with the ePortfolio these past few weeks to gain a better understanding of its impact on you as a learner.

1. Are you willing to answer these questions?

Again, thank you!

2. In your own words, how would you define an ePortfolio? (Research Question #1)

Now that you have developed a definition of the reflective ePortfolio,

3. How did your experiences with the ePortfolio affect your awareness of the skills needed for you to be ready for your future, whether it is college or a career? (Research Question #1)

Potential probes:

- a. How did the reflection affect your view of high school preparing you for college or a career?
- b. Which specific activities or aspects of the ePortfolio were most helpful? Why?
- c. Which specific activities or aspects of the ePortfolio were least helpful? Why?

Thinking about the ePortfolio you completed and your participation in class,

4. How did your experiences with the reflective ePortfolio impact your participation in class? (Research Question #2)

Potential probes:

- a. Explain why you were more interested in this class before or after using the reflective ePortfolio?
- b. Describe any specific moments where you felt that you were especially interested in class? Thank you so much for your answers. Now, I want you to think about your perception of the reflective ePortfolio overall.

5. How did you feel about using an ePortfolio and specifically reflecting on skills used in your assignments before taking this course? (Research Question #3)

Potential probes:

- a. Which experiences caused you to feel this way?
- b. Describe how you have reflected on your coursework in other classes?

Great. Now that you have thought about your perception of ePortfolios before taking this course,

6. How has your opinion of using an ePortfolio changed, specifically using an ePortfolio for reflection on your assignments? (Research Question #3)

Potential probes:

- a. Describe specific experiences that have caused a change?

Finally, I would like for you to think about future education,

7. How, if at all, do you think that reflection on transferable skills within class assignments, like in the reflective ePortfolio, could help you and other students in future courses to understand how high school assignments prepare you for college or career? (Research Question 1 & 3)

Potential probes:

- a. What benefits do you see to using a reflective ePortfolio in other classes?
- b. How would your interest in this class be affected?

Before we end the interview,

8. Do you have any additional comments you would like to make about your experience using the ePortfolio?

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed-method approaches* (4th ed.). Thousand Oaks, CA: SAGE Publications.

Thank you for your participation in this voluntary interview. You may withdraw from the interview at any time. Your responses are anonymous. If you have any questions regarding this research, then you may contact Ms. Kristin, the principal investigator, at any time.

APPENDIX E

PRE INTERVENTION CREATING A VIDEO ACTIVITY 1

GA Standard/Student Learning Target:

ELAGSE9-10W1: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence

I can produce clear and coherent writing that is appropriate to task, purpose, and audience.

Assignment: *Night* News Video

After reading and discussing *Night*, WWII articles, you will now create a 2 – to 5-minute News-type video in which you will imagine that you can warn Jews of Hitler’s horrific plan to transport all Jews to death camps. Include information on Hitler’s rise to power, Nuremberg Laws, and reports of death camps (like Moshe the Beadle tried to warn them about).

APPENDIX F

PRE INTERVENTION WRITING A LETTER ACTIVITY 2

GA Standard/Student Learning Target:

ELAGSE9-10L1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

I can write to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

Assignment: Informal vs. Formal Writing

Imagine that you are at your friend's house, and when you go down to the kitchen to grab a snack, you accidentally break your friend's mom's expensive china plates that were stacked on the counter. In a panic, you run out of the house and leave. You realize that you must apologize immediately, but you're still too scared to return to their house. Write one formal letter to your mom's friend to explain the accident. Then, write an informal text to your friend explaining what you did and why you left. Be sure to use informal and formal language as appropriate.

APPENDIX G

PRE INTERVENTION CREATING A TIMELINE ACTIVITY 3

GA Standard/Student Learning Target:

ELAGSE9-10W3: Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

I can write to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

Assignment: Create a Timeline from *Night*

Night is full of "big events" history and the lives of those who lived during Hitler's rise to power and the Holocaust. Today, you are going to reflect on the most significant events that happened in Elie Wiesel's life.

- Fill out the life events sheet completely
 - **10 historical events** (think: Hitler's rise to power, Nuremberg laws, selection, etc.)
 - **5 more personal events** (think: being put in the ghetto, being separated from his mother and sisters, etc.)
 - **Draw out your map** (be creative as you want, just make sure it's in chronological order and is easy to read)

Do include at a minimum: title of the event, year & age of Elie Wiesel, and symbol (picture) for each event that you mark on your map.

APPENDIX H

PRE INTERVENTION WRITING A NARRATIVE ACTIVITY 4

Student Learning Target:

ELAGSE9-10W9: Draw evidence from literary or informational texts to support analysis, reflection, and research.

I can use a variety of media to develop and deepen my understanding of a topic or idea.

Assignment: Write a Narrative

Today, you are going to reflect upon the characters in various chapters of *Night*. You will choose 1 character and 1 scene, and then you will rewrite the scene in a different way. The (minimum) one-page narrative should be from the point of view of the character that you chose, and you should change or show a different perspective of the scene that you chose.

You should remember to include:

- some dialogue
- descriptive adjectives
- a title

APPENDIX I

INTERVENTION CREATING A VIDEO ACTIVITY 1

GA Standard/Student Learning Target:

ELAGSE9-10W1: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence

I can produce clear and coherent writing that is appropriate to task, purpose, and audience.

Assignment: *Night* PSA Video & Script Overview

After reading and discussing *Night*, WWII articles, and watching Oprah’s interview with Elie Wiesel, you now have a message (of humanity) to share with your peers. You will share your definitions of indifference and desensitization and explain how these two concepts impact our humanity--specifically, how it impacts teenagers as messengers of humankind in a school culture context. Include information about your “teen” culture--how it desensitizes teens, affects school culture (and ultimately, humanity), and why/how students can combat indifference and desensitization.

APPENDIX J

INTERVENTION WRITING A LETTER ACTIVITY 2

GA Standard/Student Learning Target:

ELAGSE9-10L1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

I can write to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

Assignment: Informal vs. Formal Writing

Imagine that you are late for school, and you are now facing punishment based on the school's tardy policy. Write one formal email to your principal to explain why you were late to school and why you shouldn't get ISS. Then, write an informal email or text to your mom to tell her the reason why you were late as well.

APPENDIX K

INTERVENTION CREATING A TIMELINE ACTIVITY 3

GA Standard/Student Learning Target:

ELAGSE9-10W9: Draw evidence from literary or informational texts to support analysis, reflection, and research.

I can write to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

Assignment: Create a Timeline of Your Life

An Island Like You is full of stories that are "big events" in teenager's lives. Today, you are going to reflect on the most significant events in your life thus far and what you want your life map to consist of in the future.

- Fill out the life events sheet completely
 - **12 events from your past** (think: life stages you've already experienced, like being a baby or toddler, did anything significant in your family life happen, like a move to a new school, state, or country? Also include major historical events that took place during your life stages, like ISIS, Obama, Trump, whatever!)
 - **4 events for your future** (think: life stages you haven't experienced, imagine what you'd like them to be like. Include education, career possibilities, health, hobbies, lifestyle, and family.
 - **Draw out your map** (be creative as you want, just make sure it's in chronological order and is easy to read)
 - you do not have to include all the info from the chart in your map
 - DO include at a minimum: title of the event, year & your age, and symbol (picture) for each event that you mark on your map.

APPENDIX L

INTERVENTION WRITING A NARRATIVE ACTIVITY 4

Student Learning Target:

ELAGSE9-10W3: Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

I can use a variety of media to develop and deepen my understanding of a topic or idea.

Assignment: Write a Narrative

Today, you are going to reflect upon the characters in various chapters of *An Island Like You*. You will choose 1 of the following prompts to write a (minimum) one-page narrative that describes the situation given from the selected prompt.

1. Rewrite the church scene from "Abuela Invents the Zero" and what happens afterward from the perspective of Abuela.
2. Rewrite one of the scenes from "Bad Influence" from a grandparent's perspective.
3. Still reflecting on the behavior of the characters from these chapters, you may choose to reflect on your own experience with your parents/grandparents. Think back to a time where you did something similar to Connie or Rita. Write the experience from your own perspective AND then rewrite it from the adult's perspective.

You should include:

- some dialogue
- descriptive adjectives
- a title
- possibly some Spanish words if doing #1 or #2
- appropriately use formal/informal language as necessary
- minimum of 1 page

APPENDIX M

EPORTFOLIO WORKSHOP PLAN

This chart is a workshop plan for the ePortfolio based on (2) 45-minute sessions in a classroom with Chromebooks.		
Students will take notes, discuss, and interact.		
Time	Title	Content
	Objectives	<ul style="list-style-type: none">• By the end of this workshop, students should understand:<ul style="list-style-type: none">- What an ePortfolio is- How to use Google Sites to create a reflective ePortfolio- How the ePortfolio can be used to reflect on transferable skills within artifacts.- Where to get help• Students should be able to:<ul style="list-style-type: none">- Add artifacts- Add reflections

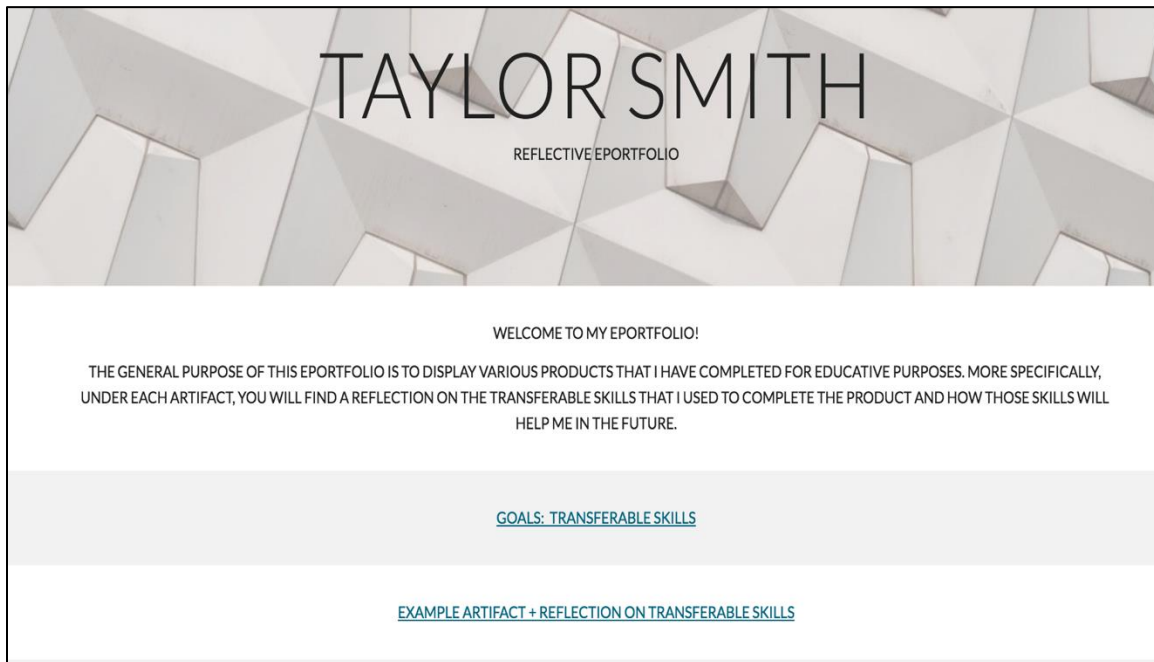
<p>15 Min</p>	<p>Background and Information on ePortfolios</p>	<p>This workshop This workshop is a hands-on introduction to creating the outline of your reflective ePortfolio.</p> <p>What is a Portfolio? For many years Portfolios have been used in the areas of visual media such as art and drama, and the fields of student teaching and nursing. They are often collections of things used to provide potential clients or potential employers with proof of capabilities. They resided in a filing cabinet or on a shelf until required. They were often singular and had to be carried from one place to another.</p> <p>What is an ePortfolio? ePortfolios are an updated form of a portfolio, an electronic tool that offers the possibility of incorporating electronic artifacts, the World Wide Web, and databases for storing, sorting, and viewing artifacts and experiences. They can exist as multiple entities; many viewers can view them synchronously; and they can be stored online for sorting, viewing, safety, and backup.</p> <p>The ePortfolio It is an online tool that students can use to record, catalog, retrieve, and present reflections on experiences and artifacts, such as photos, documents or videos.</p> <p>Students are responsible for their ePortfolio. They have control over the input of experiences and artifacts and assign who can view their work. The ePortfolio also offers a dynamic environment for students to seek feedback from peers, academic staff, and career officers.</p> <p>Uses of ePortfolio</p>
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		<p>The ePortfolio can support all three styles of portfolios which enable flexibility in construction and presentation:</p> <p><i>Employment</i> – students add experiences and artifacts against a matrix of graduate attributes and settings.</p> <p><i>Learning</i> – the work evolves dynamically as a result of interest, motivation, and reflection. Students can reflect on experiences to make new connections, personalize their learning experiences, and gain insights about the current and future activities.</p> <p><i>Assessment</i> – as required by individual academics or Faculties.</p> <p>Benefits of an ePortfolio</p> <p>Deepens the quality of learning, in the form of critical thinking or development of a questioning attitude</p> <p>Enables students to understand their learning processes better</p> <p>Increases active involvement in learning and personal ownership of learning</p> <p>Enhances creativity by making use of intuitive understanding</p> <p>Fosters reflective practice and creative interaction</p> <p>Enhances employability through a viewable ePortfolio, assisting with writing selection criteria, and preparation for an interview.</p>
75	Creation of ePortfolio	<p>This lesson is a hands-on demonstration of the features of the ePortfolio. Students should follow the process on their Chromebook to</p>

		<p>create their ePortfolio with sample reflection.</p> <ol style="list-style-type: none">1. Creation Creating a simple, generic ePortfolio on Google Sites.2. Sample ePortfolio Show the sample ePortfolio so that users have an idea of what the finished ePortfolio will look like.3. Overview From the main page, talk briefly about each of the tools – including how to add artifacts and reflections.4. Adding artifacts & reflections Activity: students add the teacher’s sample artifact (A journal entry based on an image and text from Humans of New York + sample reflection on transferable skills)5. Additional Help Answer questions. Briefly show how to get access to help/tutorials on Google and YouTube.
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APPENDIX N

EXAMPLE OF STUDENT EPORTFOLIO HOME PAGE/PURPOSE
STATEMENT



APPENDIX O

LESSON ON TRANSFERABLE SKILLS

<u>OBJECTIVES:</u>	<p>By the end of this workshop, students should understand:</p> <p>(a) definitions of transferable skills, (b) examples of transferable skills, (c) transferable skills that pertain to their career interests, and (d) how to add a page of significant transferable skills to their ePortfolio.</p> <p>Students will take notes, discuss, and interact.</p>
<u>Context of Transferable Skills</u>	<p>Many high school students feel that four (or more) years of high school haven't sufficiently prepared them to begin work or college after graduation. And like these students, you may have carefully reviewed your class schedule, and you may still have a difficult time seeing how the skills you learned in high school will transfer to the workplace. But keep in mind that you've been acquiring skills since childhood. Whether learning the value of teamwork by playing sports, developing editing skills working on your high school newspaper, or developing many skills while completing your coursework, each of your experiences has laid the groundwork for building additional skills. Many times, students are unaware of the skills that they are developing while completing coursework, so you will have time to reflect upon skills used in each of your assignments to discover how high school is making you more career/college-ready.</p>
<u>Definition of Transferable skills</u>	<p>A transferable skill is a "portable skill" that you deliberately (or inadvertently, if you haven't</p>

	<p>identified them yet) take with you to other life experiences. Your transferable skills are often:</p> <ul style="list-style-type: none"> • Acquired through a class (e.g., an English major who is taught technical writing) • Acquired through experience (e.g., the student government representative who develops strong motivation and consensus-building skills)
<u>Importance of Transferable skills</u>	<p>Transferable skills supplement your degree. They provide an employer with concrete evidence of your readiness and qualifications for a position. Identifying your transferable skills and communicating them to potential employers will significantly increase your success during the job search. In your reflective ePortfolio, you will create a body of work to show future professors or employers.</p>
<u>Bennett's (2002) 13 indicators of college and career readiness - transferable skills</u>	<p>The following 13 skills are most sought after by employees according to research:</p> <p>(a) adaptability, (b) analysis, (c) communication, (d) initiative, (e) IT, (f) leadership, (g) motivation, (h) numeracy, (i) organization, (j) presentation, (k) problem solving, (l) self-confidence, and (m) team-working.</p>
<u>Specific transferable skills needed for your future</u>	<p>Think about what career or major you plan on having in the future. What skills will you need to be successful? For example, some transferable skills can be used in every workplace setting (e.g., organizing or public speaking) while some are more applicable to specific settings (e.g., drafting or accounting).</p>
<u>Activity</u>	<ul style="list-style-type: none"> • Explore this list of transferable skills needed for various career interests • Make a list of those most necessary for your future success • Add a page to your Google Site entitled "Goals: Transferable Skills" • List Bennett's (2003) 13 skills • Add your list of skills based on career interests

<u>Additional Resources</u>	Checklist - this list can give you more ideas on more specific transferable skills.
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APPENDIX P

EXAMPLE OF GOALS: TRANSFERABLE SKILLS WEBPAGE WITHIN EPORTFOLIO

The image shows a screenshot of a webpage with a dark brown header containing the title "GOALS: TRANSFERABLE SKILLS" in white. Below the header, the text reads: "I have set goals to acquire certain transferable skills to help me be successful in the future! While there are a myriad of transferable skills, employers commonly seek out people who have the following skills: (a) adaptability, (b) analysis, (c) communication, (d) initiative, (e) IT, (f) leadership, (g) motivation, (h) numeracy, (i) organization, (j) presentation, (k) problem solving, (l) self-confidence, and (m) team-working". Below this, it states "Since I want to have a career in law, these skills are important to me!!!!". At the bottom, there are two columns of bulleted items. The left column lists: Critical thinking, Logical thinking, Problem solving, Sound judgment, and Explaining complex ideas clearly. The right column lists: People skills, Working with others, Investigation, Legal research, and Posing research questions. A mobile navigation bar is visible on the right side of the page.

GOALS: TRANSFERABLE SKILLS

I have set goals to acquire certain transferable skills to help me be successful in the future!

While there are a myriad of transferable skills, employers commonly seek out people who have the following skills:

(a) adaptability, (b) analysis, (c) communication, (d) initiative, (e) IT, (f) leadership, (g) motivation, (h) numeracy, (i) organization, (j) presentation, (k) problem solving, (l) self-confidence, and (m) team-working

Since I want to have a career in law, these skills are important to me!!!!

- [Critical thinking](#)
- [Logical thinking](#)
- [Problem solving](#)
- Sound judgment
- Explaining complex ideas clearly

- People skills
- Working with others
- Investigation
- Legal research
- Posing research questions

APPENDIX Q

LESSON ON GUIDED REFLECTION ON TRANSFERABLE SKILLS

By the end of this lesson, students will understand how to reflect on transferable skills used in each artifact, and students will use this guided reflection when using their ePortfolio.


1. Topic sentence - briefly state assignment details
2. Concrete detail(s) - brief reflection on the assignment
 - a. state the specifics on what you did/actions you took within the assignment
 - b. state any significant experiences - positive or negative
3. Commentary/analysis - more in-depth reflection on transferable skills
 - a. state which of the 13 major transferable skills that you used in the task
 - b. list any other transferable skills or specifics
 - c. state how these skills and experiences connect to your future goals
4. Concluding sentence - briefly state what you achieved/what you learned overall

APPENDIX R

EXAMPLE OF EPORTFOLIO ARTIFACT WITH GUIDED REFLECTION

EXAMPLE ARTIFACT + REFLECTION ON TRANSFERABLE SKILLS

Click to edit text



Dispelling Stereotypes by Knowing Others' Stories - Humans of New York

1. The first thing I noticed about the picture was that she looked around the same age as me, and so I read her story. Honestly, I was surprised with her opinion.
2. There is a stereotype about teenagers, that they're reckless and are in a hurry to grow up, like she said, and people most likely thought that about her.
3. I think that her statement is proof that not all teenagers want to do drugs or get drunk, and that her story can help dispel the stereotype of the "typical teenager".

"I'm fourteen and all my friends are crazy about being grown-ups right now. They're drinking alcohol, they're smoking cigarettes. They're trying to act vulgar. They'll do anything to separate from their parents and prove that they're independent. Personally, I'd like to be a child once a little bit longer. I love spending time with my parents. I'm not in a rush to get away. I'd like these times to last as long as possible." -Cici, 14, Birmingham, Bhamad

HUMANS OF NEW YORK

1. Topic sentence - briefly state assignment details
2. Concrete detail(s) - brief reflection on the assignment
 - state the specifics on what you did/actions you took within the assignment
 - state any significant experiences - positive or negative
3. Commentary/analysis - more in depth reflection on transferable skills
 - state which of the 13 major transferable skills were used in the task
 - list any other transferable skills or specifics
 - state how those skills connect to your future goals
4. Concluding sentence - briefly state what you achieved/what you learned overall

Above are the steps you learned to thoughtfully reflect on skills used in class assignments. An example reflection might read:

Example Product of an Activity Assigned in Class

Reflection on Transferable Skills:

(1) In the Humans of New York blog assignment, I had to find an image that interested me and read that person's story to see if their story could dispel any stereotype that I may have about that person because of their gender, race, or appearance in general.

(2) I found several pictures that interested me but I chose to read and write about a young girl who looked about my age.

(3) I used a lot of transferable skills as I completed this assignment. Of the 13 major transferable skills, I used analysis (when I analyzed the picture and the girl's story), communication (written communication to express my ideas), initiative (I started the assignment right away and finished within the deadline), IT (I was able to navigate the HONY blog online and use the ePortfolio to post images and text), leadership (I helped a classmate screenshot the HONY post), organization (I organized my thoughts in regards to the list of prompts), presentation (I was able to present the info clearly within the ePortfolio). Additionally, I was able to: work independently, meet a deadline, research, create new ideas, write clearly, and edit my writing. All of these skills will help me in the future as I want to become a lawyer, and a lawyer needs all of these skills in order to be successful. Lawyers need to have analytical ability and writing ability in order to do their job well.

(4) I also felt very accomplished because I was able to discuss with my classmates about my HONY post and my thoughts. I was able to explain my ideas on dispelling the "party teenager" stereotype. I learned that there are so many skills being learned and sharpened each time I do even a small assignment in class.

APPENDIX S

EXAMPLE OF STUDENT REFLECTION ON INTERVENTION VIDEO

ACTIVITY 1

Reflection on PSA Video

<https://youtu.be/ZDDjrdqM7Sk>

1. My statement on the assignment is that we need to stop cyber bullying.

2. Reflect on the assignment itself

We are discussing how students are discriminated against on social media.

3. Reflect on 13 transferable skills and reflect on your own goals/skills.

The 13 translatable skills are going to help me be a great physical therapist. For example, I will need to be caring, humble, positive, etc, to be a good physical therapist. A physical therapist needs to care for their patients, stay positive for the patient when they are at a low, stay humble so your patients do not think they have someone who is a jerk taking care of them and if they feel like that they will not feel safe or trust you. These skills that I need to be a physical therapist also helped me in the project by staying patient since knowing that I had very little time to work on the project and had to stay patient and wait. Also I communicated with my partner and teacher, explaining to them that I was going to be out of town and had very little to no time to work on the project.

4. Conclude overall what you learned/accomplished.

Overall I learned that online and in person the same thing is happening and it is just as bad getting bullied online just as getting bullied in person, since there are people who take what people say to heart and can't let things go as easy as others.

APPENDIX T

EXAMPLE OF STUDENT REFLECTION ON INTERVENTION

WRITING ACTIVITY 2

1. My statement on this assignment is it is ok to change formality depending on who you talk to.
2. We were working on different formalities for specific people, like one for talking to your principal and one to your mother or family member.
3. In this assignment, I wrote two letters, one to my principal explaining why I was late to school, and one to my mom explaining the same thing, but not as formal. Of the 13 transferable skills I had to be well organized and communicative to write the letters to give a good layout and explain what was going on to the reader. My hard working side of me came into play when, it came to writing the letters. I started on them right away and kept going until I finished. I also had to be flexible since we had to change from formal, to informal from one letter to another right away. Since I want to be a physical therapist I need to be well organized, and when writing the letters, I organized the formal letter and informal letter to make sense. From going to the start of the story I was telling to the end. I had to make sure the story was in order and both of the letters matched in the parts the story was told and make sure that I used different types of formality according who I was writing to.
4. Overall I learned that there is a time to use formal writing and a time to use informal writing. For example, it is fine to use informal writing when talking or sending a letter to someone that you know personally. This is because, you know them well enough for them to understand what you are saying plus they know you are not trying to be rude.

APPENDIX U

EXAMPLE OF STUDENT REFLECTION ON INTERVENTION

TIMELINE ACTIVITY 3

1. My statement on this assignment is we often forget about what we did in life and what we want to do in life.
2. There is a time where we just need to relax and see what we have accomplished and look at what we need to accomplish to help us in the moment.
3. In this assignment, I made a list explaining the basic and some little but some big events in my life. Then I made a few explaining what I want to accomplish later on in life. This assignment needed me to be well organized because, the events needed to be in chronological order and make sense on how it flows on. Just like in physical therapy you need to have stretches, therapy, and many more organized so you can treat the right thing in the right order and not harm the body. I also communicated well with my teacher to make sure that it was fine to use pictures that were not uploaded from drive.
4. Overall I learned to slow down a little bit and appreciate what life has to offer, and some decisions on what I want accomplish a few years down the road.

APPENDIX V

EXAMPLE OF STUDENT REFLECTION ON INTERVENTION

NARRATIVE ACTIVITY 4

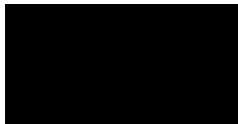
1. My statement on this assignment is, we are often close minded, only care about ourselves and not how others feel.
2. We need to stop only focusing on how we feel in the moment and start to look how other people feel. Put yourself in their shoes and try to reason why they are doing something, before you jump to conclusions and judge.
3. In this assignment, I rewrote the chapter "abuela invents the zero." In that chapter the original perspective is first person from Connie's point of view. I had to use my creative thinking to rewrite the chapter and make it through abuelas point of view. To do this I used my creative thinking to put the chapter in abuelas point of view, to make sense and to show what abuela was trying to do. This also took critical thinking, and to be a physical therapist I need to be able to use critical thinking to be able to think in a time someone really needs me to react and not just sit there and think.
4. Overall, I learned that we need to stop just thinking about how we feel, start to care how others feel, and put ourselves in others shoes to be able to relate to them.

APPENDIX W
IRB APPROVAL FORM



OFFICE OF RESEARCH COMPLIANCE

INSTITUTIONAL REVIEW BOARD FOR HUMAN RESEARCH
APPROVAL LETTER for EXEMPT REVIEW



Dear Ms. Julie Kristin:

This is to certify that the research study ***Exploring the Effect of ePortfolios with Reflection on Transferable Skills on High School Students' Perceptions of College and Career Readiness: A Mixed-methods Approach*** was reviewed in accordance with 45 CFR 46.101(b)(1), the study received an exemption from Human Research Subject Regulations on **11/15/2018**. No further action or Institutional Review Board (IRB) oversight is required, as long as the study remains the same. However, the Principal Investigator must inform the Office of Research Compliance of any changes in procedures involving human subjects. Changes to the current research study could result in a reclassification of the study and further review by the IRB.

Because this study was determined to be exempt from further IRB oversight, consent document(s), if applicable, are not stamped with an expiration date.

All research related records are to be retained for at least three (3) years after termination of the study.

The Office of Research Compliance is an administrative office that supports the University of South Carolina Institutional Review Board (USC IRB). If you have questions, contact Lisa Johnson at lisaj@mailbox.sc.edu or (803) 777-6670.

Sincerely,

A handwritten signature in blue ink, appearing to read "Lisa M. Johnson".

Lisa M. Johnson
ORC Assistant Director and IRB Manager