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The Impact of Interactive Journaling on Seventh-Grade Students' Writing Self-Efficacy, Writing Performance, And Attitudes Towards Writing

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THE IMPACT OF INTERACTIVE JOURNALING ON SEVENTH-GRADE
STUDENTS' WRITING SELF-EFFICACY, WRITING PERFORMANCE, AND
ATTITUDES TOWARDS WRITING

by

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DEDICATION

To my wonderful husband, Norm, who provided such love and support throughout this endeavor. To my twin girls, Lexi and Emme, whose smiles and love helped me get through the hardest days. I could not have done this without my family.

ABSTRACT

The purpose of this action research study was to evaluate the impact of interactive journaling on the writing self-efficacy, writing performance, and attitudes towards writing of seventh-grade students. According to the 2011 National Assessment of Educational Progress (NAEP) Writing Test, only one-fourth of 8th and 12th graders are proficient at writing. This means thousands of people are entering the job market with inadequate writing skills (U.S. Department of Education, 2014). Research suggests that if people feel more confident in their writing abilities, writing performance will improve. This study was guided by several research questions. First, the study aimed to reveal the impact of interactive journaling on student writing self-efficacy. Second, the impact of interactive journaling on writing performance was evaluated. Lastly, the study assessed the impact of interactive journaling on students' attitudes towards writing.

Participants for this study were 22 seventh-grade students at a middle school in the Southeast. This study utilized pre-tests for writing self-efficacy, writing performance, and attitudes towards writing. A digital tool called SeeSaw was used to implement interactive journaling as a five-week innovation. This consisted of daily narrative writing prompts for five minutes per day. Afterward, post-tests for writing self-efficacy, writing performance, and attitudes towards writing were administered. Lastly, participants were interviewed about perceived impacts on writing self-efficacy, writing performance, and attitudes towards writing

Results from paired-sample t-tests showed no statistically significant differences from pre-tests to post-tests on writing self-efficacy or attitudes towards writing. Wilcoxon Signed-Rank tests were performed on the subsections of writing performance and again, found no statistical significance. However, student interviews revealed that students felt they were better at writing and reported feeling more positive towards writing after having undergone the intervention.

These findings indicate a complex relationship between interactive journaling, writing self-efficacy, writing performance, and attitudes towards writing. Students' positive views of interactive journaling indicate the potential power it may wield over student writing. However, the lack of significant results in the quantitative measures suggest that more research is needed in this area. Implications and limitations are provided.

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LIST OF ABBREVIATIONS

MMS ....Middling Middle School

NAEP ....National Assessment of Educational Progress

NCTE ....National Council of Teachers of English

SEWS... Self-Efficacy Writing Survey

WAS...Writing Attitude Survey

CHAPTER 1

INTRODUCTION

National Context

From essays to texting, writing permeates our lives. We write emails, grocery

lists, and posts on social media, in addition to writing for a plethora of more formal

purposes in school and in the workplace. Why, then, are so few Americans proficient at

writing? According to the most recent writing assessment from the 2011 National

Assessment of Educational Progress (NAEP), only one-fourth of 8th and 12th graders are

proficient at writing. This translates to around 21,000 out of approximately 28,000

twelfth graders nationwide entering the job market with inadequate writing skills (U.S.

Department of Education, 2014).

Trends in writing instruction are partially to blame for inadequate writing skills.

Writing has often been pushed to the back burner because it has not been regularly tested

(Arneson, 2014). Often, when it is taught, writing is taught in a procedural way and

focuses on the formulaic writing required for standardized testing (Robb, 2013; Brown,

Morrell, & Rowlands, 2011; Applebee & Langer, 2011), which is not typically enjoyed

by students. In a large-scale study of writing instruction, Applebee and Langer (2011)

found that 6.3% of instructional time was spent in the teaching of writing strategies, even

though writing is a complex, problem-solving that students need help mastering activity

(Harris, Graham, Friedlander, & Laud., 2013). It is no wonder that many children fear writing (Musgrove, 1999) and may avoid it due to the stress it causes them (Vue et al., 2016). Lack of innovative writing instruction may also be one reason that many students have negative attitudes towards writing (Bulut, 2017; Graham, Berninger, & Fan, 2007).

Graham et al. (2007) found that students with more favorable attitudes toward writing were likely to write more often and expend greater effort than students with less favorable attitudes. Several studies have found significant positive relationships between attitude towards writing and writing performance (Kotula, Tivnan, & Aguilar, 2014; Lee, 2013: Bulut, 2017; Sanders-Reio, Alexander, Reio, & Newman, 2014). As students progress through grades, their attitudes toward writing tend to become less favorable (Hogan, 1980; Bulut, 2017). However, Robb (2013) found that students who could choose their writing topics were more likely to find writing to be relevant to their lives.

Several initiatives have been established to address the lack of writing skills nationwide. The National Council of Teachers of English ([NCTE], 2009) created *The Writing Initiative*, a school-wide program that trains teachers in writing instruction across content areas. Its impact is unclear, as no results yet have been reported. The National Writing Project instituted College-Ready Writers Program in 22 school districts among 10 states and did find a degree of success in argumentative writing (Gallagher, Arshan, & Woodworth 2016). These initiatives cost money and while they have undoubtedly incurred some change, national writing scores have not experienced an increase, making one doubt their effectiveness. In addition to these initiatives, Common Core Standards were implemented in 2009 and focused on improving writing with an emphasis, again, on argumentative writing (Walpert-Gawron, 2011).

The work being done at the national level does not seem to be effective. None of these initiatives are focusing on connecting with students' lives and senses of self, which have been found to be the most effective way of motivating students to write (Behizadeh, 2014; Graham, Kiuhara, Harris, & Fishman, 2017). Students often find writing to be "stressful and challenging" (Vue et al., 2016, p. 92). In order to facilitate learning, emphasis must be placed on learners' ability and interest (Robinson, Molenda, & Rezabek, 2008). The use of technology in the classroom tends to spark interest in students and motivate them to engage in classroom activities (Hilton, 2015).

Local Context

The study took place at Middling Middle School (MMS) in southeastern South Carolina which serves 1,226 students in grades 6-8. It is a part of a larger school district, which serves 15,026 students in grades K-12. According to South Carolina Department of Education, the racial composition of the school is as follows: 53% White; 36% Black; 6% Hispanic; and 4% two or more races. The school serves a high proportion of low-income families at 58% (South Carolina Department of Education, 2018).

Students at MMS take a state assessment each year called SC Ready. It consists of three tests: Reading, Writing, and Mathematics. According to the South Carolina Department of Education website (2018), 65% of the total students at MMS failed to meet reading and writing standards in 2017 (see Table 1.1). 70% of the 711 students living in poverty did not meet expectations for reading and writing. Black students have the highest percentage of failing scores at 76%. It is evident from the data that scores in reading and writing are low at MMS. It is also evident that the theory that students living

in poverty tend to do worse on standardized tests (Graham et al., 2007) may indeed ring true in this case.

Table 1.1 *Performance results on 2017 SC Ready Reading and Writing tests in percentages*

Group	Met or Exceeded expectations (%)	Did not meet Expectations (%)
School-wide	33	67
Female	38	62
Male	29	71
White	43	57
Black	24	76
Hispanic	30	70
Poverty	28	72
6th grade	38	62
7th grade	30	70
8th grade	35	65

MMS SC Ready scores are below district and state performance, whose failure rates were 54% and 60%, respectively. When writing scores are isolated, MMS scored an average of 4.51 out of 16. In fact, no students scored higher than 12 in the 2017 test administration. The district did not fare much better at an average score of 4.54 (Enrich, 2018). Indeed, South Carolina public school students at large are struggling with writing skills.

I conducted a poll at the beginning of the 2017-2018 school year at Middling Middle School about student's opinions about writing. Out of 30 sixth-grade students, 21 (70%) reported having negative attitudes towards writing. Upon further questioning (as a class), they admitted they did little writing in their classes.

Statement of the Problem

An informal poll at the beginning of the 2017 school year revealed that out of 30 seventh-grade students, 21 (70%) have negative attitudes towards writing at Middling Middle School. These students also revealed that they felt they were not good at writing, which indicates low self-efficacy. Many studies have linked negative attitudes toward writing and low writing self-efficacy with poor writing performance (Nobles & Paganucci, 2015; Bulut, 2017; Musgrove, 1999; Graham, Daley, Aitken, Harris, & Robinson, 2018; Limpo, 2014). Further, DeMent (2008) confirmed that fostering a more positive attitude towards writing leads to eventual improvement in writing ability. Certain pedagogical practices such as daily writing, providing encouraging and detailed feedback, as well as writing for a variety of prompts (Schunck & Zimmerman, 2007; Zumbrunn & Krause, 2012; Graham & Harris, 2016) are key to making writing more approachable for students, thus improving their attitudes towards writing and writing self-efficacy. The implementation of digital tools in instruction may also help students write more effectively (Williams, 2018), as well as increase motivation to write (Williams, 2018; Jesson, Mcnaughton, Rosedale, Zhu, & Cockle, 2018; Hilton, 2015).

Purpose Statement

The purpose of this action research is to evaluate the impact of interactive journaling on seventh grade students' writing self-efficacy, attitudes towards writing, and writing performance.

Research Questions

1. What is the impact of interactive journaling on students' writing self-efficacy?

2. What is the impact of interactive journaling on students' writing performance?

3. What is the impact of interactive journaling on students' attitudes towards writing?

Subjectivity and Positionality

We have an inherent need to make sense of the world around us. As a result, we often judge and label people and events, albeit subconsciously, to obtain an understanding for ourselves. Often these understandings are bestowed upon us by parents when we are children. We take them as fact because we trust our parents. Unfortunately, many children like me grew up locking the car door when a person of color would walk by our vehicle. Why? My family believed that people of color were inferior to Whites, that they were criminals who took advantage of government welfare programs and were to be avoided at all costs. This was all communicated to me as truth through a thousand little actions and comments throughout my impressionable years. At 41 years old, I have had over two decades to negotiate my own beliefs to be separate from the antiquated ones passed down to me. I can confidently declare they differ greatly, almost mirror opposites in some regards. However, will I ever be able to completely untangle the knot of stereotypical biases that were ingrained in me consistently throughout my formative years? The answer is no. I don't believe those lessons will ever disappear. However, I can battle this subjectivity by actively seeking it out and doing my best to keep it out of my research and interpretation of data (Peshkin, 1988).

Fortunately, throughout my thirteen years of working in education, I have had many experiences that have challenged my family's beliefs (I am loath to call them my

own, though I know they are part of me). However, there are many more stereotypes that I must battle on an everyday basis. For example, I work with many children from low-income families, including homeless children and those in foster care. Often these students are low achievers for a variety of reasons. I must remind myself that academic performance does not always indicate ability; in fact, it often does not. Rather, it often reflects beliefs students have about their own abilities (Sanders-Reio et al., 2014). This is a limitation in any study of student performance that needs to be recognized and one that I feel I am aware of as a classroom teacher. I get to know my students in greater depth than many teachers due to the personal nature of writing. As a result, I find myself forming bonds with certain students more than others. This not only has the potential to affect how student participants respond, but also how I interpret their responses (Zeni, 1998).

As an educator, I have encountered many students who show no interest in learning, but much interest in getting the attention of others. I have found myself getting angry with this behavior but remind myself that these students have had experiences that reinforce this behavior and maybe only a few academic experiences they have found to be rewarding. Often, these children are boys. Often, they are minorities. But always, they are children, and as such, deserve my careful consideration on how to best meet their needs. My obligation to students always comes first, even if it skews my data and results in my action research being deemed ineffective. My identity as a moral person and educator is priority.

Indeed, negotiating positionality (Merriam et al., 2010) as a researcher will prove to be my biggest challenge as a teacher-researcher. I believe one of my greatest attributes

that makes me an effective teacher is my status as an insider with middle school students; that is, my ability to remember my identity as a middle schooler. This commonality is enough for some students to grant me the trust needed for honest responses in my study and classroom. In terms of gender, culture, age, race, and socioeconomic status, I am certainly an outsider which means my access to trust and honesty from some students is limited (Merriam et. al, 2010). There is nothing I can do about my status as an outsider except acknowledge it, deeply reflect on it, and ensure it does not negatively impact my interpretation of results.

As a pragmatist, I believe that truth lies in one's actions, situations, and consequences (Creswell, 2013), and to access these, I need to interview my participants. Without understanding one's experiences and beliefs, I am unable to think past my own. As a social researcher and a teacher, it is imperative that I understand my students' motivations and experiences to make sense of them and formulate a kind of hypothesis as to why things are the way they are and why people respond the way they do. After all, I am not dealing with detached subjects of research; rather, I am involved with student participants who depend on me to have their best interests at heart.

Definitions of Terms

Self-efficacy

Albert Bandura (2002) defined self-efficacy as "people's judgments of their capabilities to exercise control over events that affect their lives" (p.59). He also described it as a person's belief about their capabilities to perform a certain skill (Bandura, 2002).

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Writing self-efficacy

Writing self-efficacy can be defined as "one's beliefs about one's own writing skills" (Sanders-Reio et al., 2014, p.1).

Attitude towards writing

Attitude towards writing can be defined as "how the act of writing makes the author feel, ranging from happy to unhappy" (Graham et al., 2007, p. 518)

Writing performance

Writing performance will be defined by number of words written, use of adjectives (Graham et al., 2017; McCurdy, Skinner, Watson, & Shriver, 2008; Hetthong & Teo, 2013), in addition to an idea development score.

Digital tools

Digital tools are technology programs that "foster communication among students and enable them to share ideas, knowledge, content, and resources" (Durovic, Dlab, & Hoic-Bozic, 2019, p. 636). The primary tools used in this study will be SeeSaw, a journal-writing tool.

Interactive journaling

Writing that is exchanged between students, peers, and sometimes the teacher (Parr, Haberstroh, & Kottler, 2008). In this study, online interactive journaling will refer to journaling accomplished through digital tools, with feedback from peers.

CHAPTER 2

A REVIEW OF THE LITERATURE

The purpose of this action research is to evaluate the impact of interactive journaling on the writing self-efficacy, writing performance, and attitudes toward writing of seventh-grade students. The study also aims to reveal factors contributing to students' writing processes after having experienced the innovation.

The primary databases used for this literature search were *Academic Search Complete*, *ERIC,* and *Education Source*. In most cases, publication dates were limited to 2015 and after to ensure timely relevance. However, in some cases, valuable information was derived from older sources. Almost all sources were peer-reviewed articles, book chapters, or dissertations. The exceptions to this were the websites of national organizations such as The National Assessment of Educational Progress, and the National Center for Educational Statistics. The keywords and search terms that I used when searching the library databases included *digital, digital tools, self-efficacy, journaling, interactive journaling, writing*, *writing self-efficacy*, *attitudes towards writing*, *middle school*, *action research*, *writing performance*, and *writing assessment*. In order to obtain data on the many psychological constructs involved in the study, I used research with no date limitations and used different combinations of the following search terms: *self-efficacy, Bandura, writing efficacy, assessment, measure*, and *middle school.* I combined

This review of the literature will start with establishing the importance of writing and what the research suggests should be done. Subsequent sections of this review will deal with major themes of this study. First, self-efficacy will be introduced and examined as it pertains to writing. Research on issues contributing to writing self-efficacy will be discovered, as well as an examination of how writing self-efficacy has been assessed in the research. This section ends with an examination of how research indicates writing self-efficacy can be improved, particularly through digital tools.

Second, nationwide writing performance will be examined, as well as the importance of writing and the skills involved in writing. Writing assessment will also be investigated, in addition to an analysis on the trends in writing performance as it applies to age, and gender. Research on the impact of writing in an online environment will be examined as it pertains to student writing performance.

Third, research on students' attitudes towards writing will be presented. There will be reports on how attitudes towards writing have been assessed, in addition to what trends research has uncovered. Contributing factors and strategies for improving attitudes towards writing will also be explored, as well as the impact technology may have on attitudes.

Last, will be an overview of a best writing practice, daily journaling, specifically, interactive journaling. The importance of daily writing will be examined. Additionally, the digital journaling tool SeeSaw will be introduced. What will follow is an analysis of how the use of daily interactive journaling can impact writing self-efficacy, attitudes towards writing, and writing performanc

Importance of Writing in the Classroom

Research has shown that middle school students tend to spend little time writing inside and outside of the classroom. After visiting 260 middle and high school classrooms, Applebee and Langer (2011) found that only 7.7% of class time was devoted to writing instruction. Similarly, a survey of 114 middle school teachers revealed that writing is taught an average of six minutes per day (Graham, Capizzi, Harris, Hebert, & Morphy, 2014). Graham, Berninger, & Abbot (2012) found an increase in writing quality and quantity in students who were provided extra time to write each week. Similarly, Graham and Harris (2016) found that an extra 45 minutes devoted to writing weekly in the classroom led to a 12-point increase in writing quality, demonstrating that providing more time to write may lead to higher writing performance. Students need to have uninterrupted time for writing (Zumbrunn & Krause, 2012). Researchers have repeatedly revealed that writing is a skill that can be improved by practice (Limpo & Alves, 2014; Parida, Rout, & Swain, 2017; Hodges, Wright, & McTigue, 2019). Findings indicate that when students repeatedly plan their writing, writing quality is improved (Limpo & Alves, 2014). Evidence also indicates the more opportunities students are given to freely write, the more likely they will have positive experiences (Troia, Harbaugh, Shankland, Wolbers, & Lawrence 2013). Providing students time to write shows them that teachers consider writing to be important (Limpo & Alves, 2014). In fact, DeSmedt et al. (2019) posit that by not giving students time to practice writing, they are "actively hampering" students' opportunities for writing improvement (p. 162).

Many students do not consider in-school writing as a way of expressing themselves; rather, they consider it as a task to transfer knowledge, which results in

feeling restricted in their creativity (Bal, 2018). Students are better able to connect with writing if they are given a choice of topic (Tindal, 2017; Graham & Harris, 2016). If given many opportunities to write with flexibility in topic selection, students will get the practice they need to succeed when faced with prescriptive, standardized-test-type writing prompts (Robb, 2010). By focusing on authentic (real-life) writing topics in the classroom and teaching students how to find authenticity in standardized writing prompts, teachers are preparing students to be successful in a variety of situations (Behizadeh, 2014).

Research has uncovered several elements that may factor into students' reluctance to write and these will be the targets of this study. These include self-efficacy, assessment of writing performance, and attitudes towards writing. The importance of daily writing in the form of journaling will be explored, along with the implications of integrating technology with each of these constructs.

Self-Efficacy

When students walk into a classroom, they bring their beliefs, past experiences, and pre-conceived notions about themselves as learners. Students' past stories of success and failure that have played out in the classroom inform their feelings about writing and academics (Musgrove, 1999). These experiences inform their feelings of self-efficacy. (Bandura, 2002). Albert Bandura (2002) defined self-efficacy as "people's judgments of their capabilities to exercise control over events that affect their lives" (p.59). He also described it as a person's belief about their capabilities to perform a certain skill (Bandura, 2002). In fact, "those with high self-efficacy for acquiring a skill or performing a task participate more readily, work harder, persist longer when they encounter

difficulties, and achieve at higher levels" (Schunk & Zimmerman, 2007, p. 9). This confirms the importance of targeting self-efficacy when seeking to improve writing performance.

Research has shown that past experiences with a skill will likely determine students' feelings of self-efficacy, which helps shape their identities (Limpo & Alves, 2014; Merchant, 2005; & Pajares, 2007). In fact, people's identities are produced, in part, through actions and performance (Merchant, 2005). Indeed, Pajares (2007) found that students' past experiences with a task was the strongest predictor of self-efficacy: meaning if a student had had good experiences with writing, he or she is likely to feel good about writing. To further illustrate, Merchant (2005) points out that if a student is proficient at a skill, that skill is more likely to become part of their identity.

Low self-efficacy has been shown to adversely affect academics in all grade levels (Webb, Vandiver, & Jeung, 2016). These negative feelings of self-efficacy may cause apprehension in students before they walk into a classroom (Sanders-Reio et al., 2014). Webb et al. (2016) go on to posit that a student's decision to complete a task is made in part by their feelings of self-efficacy about their current task. According to Bandura (2002), self-efficacy is linked to motivation and plays a crucial role in the goals people set for themselves. For an example, he offers that people may not even try for something they want because they are sure they will fail (Bandura, 2002). This can apply to any activity one sets out to do, such as writing.

Writing self-efficacy

Self-efficacy is domain-specific; that is, one's self-efficacy will be different for different skills (Bandura, 1997). Writing is a domain that crosses all courses through a

student's academic career, but instruction for writing originates in the Language Arts classroom (Olsen, 1962). Writing is a multifaceted skill that many students find daunting; in fact, students who do not feel they are skillful writers may consider writing assignments a threat to their sense of competence (feelings of self-efficacy) and intrinsic motivation (Camacho & Alves, 2017).

Writing self-efficacy can be defined as "one's beliefs about one's own writing skills" (Sanders-Reio et al., 2014, p.1) and has been identified as a strong predictor of writing performance (Graham et al., 2018; Limpo & Alves, 2014; Webb et al., 2016). Limpo and Alves (2014) posits that self-efficacy is the strongest motivational predictor of writing performance. Graham et al. (2018) found that of 185 sixth, seventh, and eighth grade participants studied, self- efficacy toward writing was the strongest predictor of writing performance when other factors such as gender, race, and socioeconomic status were controlled. According to this same study, writing self-efficacy should account for variability in writing performance (Graham et al., 2018).

Research supports that certain teaching strategies can impact students' writing self-efficacy and writing performance (Limpo & Alves, 2014; Dement, 2008; Liao, Chang, & Chan, 2018). Limpo and Alves (2014) found that students receiving self-regulated strategy instruction, where goals are set and monitored by students and supported by teachers, had more positive beliefs about themselves as writers than those students who received standard writing instruction (grammar instruction and writing with no support). Furthermore, they wrote longer and higher quality texts. Dement (2008) found that students' self-efficacy increased with their level of engagement in writing. Similarly, a study by Liao et al. (2018) discovered that game-based learning can improve

students' writing self-efficacy and interest in writing. This shows that focusing on what students find interesting can make them feel more confident about a task. This also exemplifies the positive effect of targeting self-efficacy in order to improve performance.

Allowing students some choice in their writing topics has been shown to improve students' feelings toward writing. Pruden, Kerkhoff, Spires, & Lester (2017) found that allowing students choice of topic arouses interest and may improve feelings of self-efficacy. Behizadeh (2014) found that students in her study all expressed different needs and interests in writing topics, further illustrating that allowing choice in writing is important to connect with students. Giving students choice in writing has been shown to be a well-tested foundation of writing instruction, but in efforts to raise test scores, many teachers focus on prescriptive strategies and topics, which work to damage student identities as writers (Brown et al., 2011). Indeed, providing students a modicum of choice can serve to empower them as writers and was cited by students as one of the most meaningful aspects of writing (Behezidiah, 2014).

Students come to school with self-efficacy beliefs and feelings already in place, though the school year presents many opportunities to impact these beliefs. If a student believes that a skill is innate, that he or she is either born with it or not, and they believe they were not born with the skill, any attempt to improve self-efficacy for that skill will be futile (Limpo & Alves, 2014). On the other hand, if students feel that writing is a skill that can be cultivated, they will work harder to improve (Limpo & Alves, 2014). One study found that after exposure to a six-week enriched writing course, students' ratings of writing self-efficacy increased (Webb et al., 2016), showing that it is possible to impact students' levels of self-efficacy in the classroom.

In order to improve student's feelings of writing self-efficacy and accompanying attitudes, teachers should provide students with encouraging feedback, models with which to build their writing, and ensure that students experience a modicum of success (Schunck & Zimmerman, 2007). Providing an environment in which students feel comfortable taking the risks in writing will help them gain the confidence to try their best at writing without fear of failing (Pruden et al., 2017). Wright, Hodges, & McTigue (2019) suggest that by not making the effort to impact students' self-efficacy beliefs in a positive way, teachers are indirectly contributing to low academic performance.

The lighter side of this phenomenon is the power of positive self-efficacy. Students with high self-efficacy are able to identify and acknowledge strengths and weaknesses in their writing more readily (Wright et al., 2019). In addition, students with high writing self-efficacy tend to be high performers on writing assessments and have more positive attitudes toward writing (Limpo & Alves, 2014). Teachers and the classroom environments they create can change student attitudes toward writing and learning (Kotula et al., 2014) and increase students' feelings of self-efficacy by providing them with positive experiences (Hier & Mahony, 2018).

Digital Tools and Their Impact on Self-Efficacy

Digital tools have proven to be a convenient and highly engaging way to implement writing practices (Peterson & McClay, 2014). Digital tools are technology programs that "foster communication among students and enable them to share ideas, knowledge, content, and resources" (Durovic et al., 2019, p. 636). Using digital tools to complete writing tasks can help students develop skills needed for the real world (Zumbrunn & Krause, 2012). Many students use texting on their phones as a way of

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communication, so they are accustomed to using technology to transform their thoughts into text (Vue et al., 2016). Based on these findings, it makes good sense to maximize on this phenomenon by letting students use digital tools in their writing.

Research indicates that integrating digital tools with classroom writing results in increases in writing motivation and self-efficacy (Hitchcock, Rao, Chang, & Yuen, 2016; Pruden et al., 2017; Graham et al., 2018). Students reported they enjoyed using computers to write in a study by Hitchcock et al. (2016) and these participants also experienced gains in writing performance after using technology. A study by Pruden et al. (2017) found that all three case study participants had gains in self-efficacy after using a science-based digital writing platform. Graham et al. (2018) found a statistically significant correlation between measures of self-efficacy and the use of digital writing tools. Indeed, many uses of technology can contribute to gains in self-efficacy.

Research supports the notion that engagement with digital tools motivates students to learn to write (Jesson et al., 2018; Hilton, 2015). In a study by Jesson et al. (2018), teachers discussed how digital tools motivate children to write due to not having to focus on spelling and grammar errors, as many digital tools point out mistakes for them. In another study, teachers reported that digital tools sparked student interest in writing and held student attention longer (Hilton, 2015), which will hopefully, result in better writing performance.

Writing Performance

According to the 2011 National Assessment of Education Progress (NAEP), only one-fourth of 8th and 12th graders are proficient at writing (NAEP, 2011). This translates to around 17,000 of the 24,000 eighth graders tested nationwide entering high school

without adequate writing skills. Likewise, when leaving high school, 20,000 of the 28,000 twelfth graders tested entered the job market with inadequate writing skills (NAEP, 2011). Interestingly, the proficiency rates of both grades, though different groups, were 27%. This indicates that writing proficiency is consistently lacking throughout the high school years. Trends from the NAEP's last 20 years show writing performance has remained consistent, demonstrating a lack of improvement in writing performance throughout the years (Lee, 2013). This is indicative of a systemic problem affecting the American educational system.

This section examines the importance of writing in addition to the assessment of writing at the state and national levels. The many skills involved in writing will be described as well as trends in writing performance throughout the years, according to different demographic factors. Analysis of this information will provide the basis for this study.

Writing Skills

Writing is not an isolated skill that can be casually ignored by students or teachers. In fact, "no learning can be disassociated with reading and writing" (Villalón & Cuevas, 2013, p. 653). In fact, writing is argued to be the most difficult language skill to learn (Polatcan & Sahin, 2019) and it is vital for learning in all subject areas (Hier & Mahony, 2018). Students use writing to demonstrate knowledge and help them learn (Zumbrunn & Krause, 2012), so without adequate writing skills, students will be at a disadvantage when they are required to take a test or answer questions in writing. Failure to acquire strong writing abilities can also limit opportunities for employment (Harris et al., 2013).

Writing connects student learning goals with teacher instructional goals (Eodice, Geller, & Lerner, 2017). In their examination of years of NAEP testing data, Applebee and Langer (2009) found that students are asked to do little complex or extended writing in the classroom, which allows them few opportunities to improve writing skills. The process of writing includes invention, planning, drafting, revising, and editing (Brimi, 2012). According to Harris et al. (2013) skilled writing requires flexibility of thought and problem-solving skills. The ability to engage in higher order thinking, plan, transcribe and fluently put together sentences are cognitive skills needed to write (DeSmedt et al., 2017). Nasir, Naqvi, & Bhamani (2013) also cites the ability to organize and discovery of thought as prerequisites for writing. In order to address these critical writing requirements, students need training in critical thinking (Jesson et al., 2018). Idea development, organization, and relevant details are just some of the elements that are often found to be missing in student writing (Henderson, Rupley, Nichols, Nichols, & Rasinski, 2018). Indeed, lack of idea development and details may be responsible for the fewer number of words written by beginning writers (Graham et al., 2017). Teaching students to independently execute the psychological processes associated with writing will help students overcome writing difficulties (Pruden et al., 2017).

The NAEP describes skilled writers as those who can move beyond formulaic approaches to their writing, use technology to write and revise, and respond to on-demand prompts (NAEP, 2011). A large-scale study by Applebee and Langer (2011) revealed that in their visits to over 260 middle and high school classrooms, only 19% of assignments given in all core areas required students to write a paragraph or more. Interestingly, the participating schools were those which were known for high-quality writing instruction.

Often, the writing practice that is done in the classroom tends to focus on writing for evaluative purposes, which does not typically capture student interest (DeSmedt et al., 2019). Results of this type of approach is made apparent when examining trends in writing performance. There are many ways to assess the multi-faceted skill of writing; therefore, there is a wealth of writing assessments used to test writing performance.

Assessing Writing Performance

The NAEP is the largest nationally representative writing assessment in the U.S.(Mo & Troia, 2017). The test is broken down by the genres of persuasive, expository, and narrative writing and is timed. Writing performance on this test is based on idea development, organization of ideas, language use, and conventions (United States Department of Education, 2011). Performance on this test is used in research as a generalized representation of student writing ability (Lee, 2013). Another norm-referenced test that is widely used to assess writing is the Weschler Individual Achievement Test (WIAT) Essay Composition Subtest. This test measures writing by word count and text structures such as paragraph structure, introduction, conclusion, and use of transitions (Graham et al., 2018).

The assessment of writing is subjective, and it is difficult to confidently produce a valid and reliable score (Schoonen, 2005). Therefore, researchers use combinations of many elements to come up with what they believe to be the most accurate method of evaluating writing performance. DeSmedt et al. (2018) measured writing performance by combining scores of basic essay elements such as sentence structure and word choice into a holistic text quality score. Hettong and Teo (2013) used the same elements but added relevance of content, punctuation, spelling, and grammar to come up with a holistic total

of 27. Still others measure writing performance through number of words written, use of supportive details, and how well one idea flows to the next (Graham et al., 2018). A study headed by some of the leading experts in the field of writing instruction, used number of words written, idea development, idea organization, and mechanics to assess writing performance (Graham et al., 2017). A score for overall text quality is often assigned in the assessment of writing (DeSmedt et. al., 2017). While no ideal assessment of writing has been discovered, it is certain that there are elements (idea development, sentence structure, number of words written) considered by many to represent good writing.

Trends in writing performance

Regardless of how it is assessed, certain trends in writing performance tend to emerge. Unfortunately, the most recent data available from the NAEP writing test is from 2011. The 2011 test shows a finding that has been duplicated over and over in research studies: writing performance is higher for females than males (NAEP, 2011). In fact, the report shows that twice the number of boys scored low on writing performance than girls. When analyzing race, the discrepancy widens. While 13% of White students are failing at writing, 37% of Black and 33% of Hispanic populations scored below basic on writing performance. Black and Hispanic students are 2.5 times more likely than White students to fail at writing. Socioeconomic status also plays a role in writing performance. Those eligible for free lunch were three times more likely to score below basic on writing performance than students not eligible. The largest discrepancies in the 2011 NAEP Writing Test lie in the special education and English Language Learner (ELL) populations. Two-thirds of students receiving special education services scored below basic on writing, compared with one-fifth of the general population. The ELL population

shows a large downward trend of 65% of 8th eighth graders scoring *Not Met,* increasing to 80% by twelfth grade. Overall test results clearly indicate deficiency in writing instruction and not just for a few groups. In addition, writing performance seems to decline through grades with every category of students experiencing a decrease in performance except for White females..

Females consistently score higher on writing performance assessments than their male counterparts (Troia et al., 2013; Graham et al., 2019). This could be due to several factors, one of which is learning behaviors. Lee (2013) found that girls reported engaging in learning behaviors such as reading and writing for pleasure, more than boys in her study, who reported engaging in more physical behaviors such as sports. Another could be the fact that females tend to have more positive attitudes toward writing (Troia et al., 2013), which has also been linked to writing performance. However, research has shown many teaching practices can impact student writing performance and feelings about writing.

Using Digital Tools to Improve Writing Performance

Digital tools have the potential to close the writing ability gap that exists in the nation (Vue et al., 2016). In her recent review of research, Williams (2018) found 28 studies supporting the notion that utilizing technology in writing improves writing performance. In addition, research has shown that composing on computers has positively impacted writing quantity (word count) and quality (Peterson & McClay, 2012; Yim, Warschauer, & Zheng, 2016). Students also tend to spend more time writing when using a computer as compared with pencil-paper (Williams, 2018).

It is common practice for teachers to require rough drafts to be written by hand, only utilizing word processing programs as a means of producing the final draft (Peterson & McClay, 2012; Kervin, Comber, & Woods, 2017) However, digital tools should be used to impact the how and why students are writing, instead of being used to reinforce traditional writing practices (Anderson & Mims, 2014). For example, digital tools can be used to help students generate ideas for writing and digital publishing allows students to share their writing with an authentic audience (Kilpatrick, Saulsburry, Dostal, Wolbers, & Graham, 2014).

Digital tools allow students and teachers to communicate in many ways. Instead of merely typing a story on a word processor, students can virtually share their writing with their teachers and peers, which fosters a sense of community (Yim et al., 2016). Many internet platforms allow for interaction in the forms of feedback, collaboration and multi-modal publishing to reach more authentic audiences, such as friends and family (Nobles & Paganucci, 2015; Yim et al., 2016; Sessions, Kang, & Womack, 2016; Skains, 2017).

Indeed, digital tools have untapped potential in the writing classroom, and it is only through integrating technology into instruction that we will be able to change the ways students interact with texts (Kervin et al., 2017). Using technology in lessons helps students make connections to prior knowledge and sparks interest in learning (Kilpatrick et al., 2014), thus improving attitudes toward learning. Technology is a cornerstone of communication in the 21st century, so using it to connect students with writing in the school setting makes sense.

Despite the numerous benefits associated with the use of digital tools in the classroom, some educators are hesitant to fully incorporate them into curriculum for a variety of reasons. Teachers' beliefs about technology play into their decisions on how it is used or not used in their classrooms (Anderson & Mims, 2014). Research indicates that many teachers find that utilizing a computer with writing adds an unnecessary layer of complexity and cognitive demand, with students focusing on the typing process, rather than the generation of ideas (Peterson & McClay, 2012; Williams, 2018). Many educators also find editing tools such as spellcheck, to be a crutch for students, causing them to rely on a computer's advice instead of their own knowledge (Peterson & McClay, 2012). Henderson et al. (2018) found that a major reason for teachers' hesitation to incorporate digital tools into their curriculum stems from lack of training with technology. Whatever the reason, research has shown that utilizing technology in the classroom positively impacts students' willingness to write (Peterson & McClay, 2012) and through proper instruction can become an integral part of the writing process (Kimbell-Lopez, Cummins, & Manning 2016).

The Impact of Feedback on Performance

Many teaching practices focused on writing have been implemented and researched throughout the years in order to find the best strategies to fit all learners. In order to effect change in writing performance, instructional practices based on research-based evidence must be utilized in the classroom (Graham & Harris, 2016). Graham and Harris (2016) compiled a list of writing strategies that have found success in classrooms. Some of the strategies discussed include interacting with students by giving them feedback throughout the writing process, use of digital tools in writing, and providing

daily writing opportunities. Interestingly, these practices blend seamlessly together. Daily writing practice can be achieved through digital tools, as can writing feedback. An in-depth look at the research concerning each practice and an analysis of the many ways they can interact will elucidate the importance of their integration in instructional design.

Feedback from peers and teachers on one's writing improves writing skills (Zheng, Lawrence, Warschauer, & Lin, 2015; Townsend, Nail, Cheveallier, & Browning, 2013). A study by Zheng et al. (2015) found that students exhibited positive attitudes toward giving and receiving feedback on their writing using digital tools. Participants in another study found feedback helpful but categorized positive feedback as the least helpful (Townsend et al., 2013), showing a preference for constructive comments. Alternately, Birch (2016) found that positive feedback, can provide the encouragement needed to motivate students to write and contribute to a more positive attitude toward writing. Part of feedback is the interactive discussion about writing that happens among students and teachers. Students and teachers need to discuss the writing process in order to personalize instruction (Rothermel & O'Connell, 2002) and this can be done through face-to-face conferences or digital feedback, both of which are research-based strategies for teaching writing (Harris et al., 2013) It is through the discussion and feedback of one's work that one can identify errors in thinking and ways to improve. Peer feedback can provide this.

Peer Feedback. Receiving feedback from peers has many benefits for both the students because it requires students to think critically about the quality of their own and others' writing (Andrade, Buff, Terry, Erano, & Paolino, 2007), rather than relying on their teachers as the sole source of evaluative judgment. Furthermore, students enjoy receiving feedback from peers (Li et al., 2014). Communicating with others in class is an

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event that is typically not encouraged in a traditional classroom, so it makes sense that students would enjoy interaction. Birch (2016) found that students generally consider peer feedback to be more positive than teacher feedback. When a peer reads a student's paper, the students receive an authentic audience or one that occurs in real life that is not the teacher (Behizadeh, 2014). Though peer feedback usually focuses on mechanics and grammar (Yim, Warschauer, Zheng & Lawrence 2014), students can be taught to analyze content if given enough practice and if instructed. One study found that students who were provided detailed instruction on how to give peer feedback performed better on their own papers than those students who did not receive the guidance (Liu, Lu, Wu, & Tsai, 2016). It is only through practice that students can get better at the higher-level thinking required for the self-evaluation of one's writing (DeMent, 2008). In the meantime, identifying and suggesting ways to fix grammar and spelling in others' writing will help them become more cognizant of their own errors (Lu & Law, 2012).

Attitudes towards writing

Attitudes are "one's habitual tendencies toward a response or action" (Musgrove, 1999, p.2). Attitude toward writing is defined as "how the act of writing makes the author feel, ranging from happy to unhappy" (Graham et al., 2007, p. 518) or in the case of this study, positive or negative. Attitudes are informed by one's experiences and feelings of self-efficacy and impacts the motivation one has to complete a task (Graham et al., 2007). All of these factors influence how much effort one decides to put into an assignment.

Students who do not like writing are likely to develop a negative attitude towards writing in addition to lower feelings of self-efficacy (Bulut, 2017; Erkan & Saban, 2011), both of which can lead to lower writing performance. In her study of fourth 335 graders,

Bulut (2017) found statistically significant relationships between students' attitudes towards writing and self-efficacy and both constructs had significant positive relationships with writing performance.

Student attitudes toward writing have repeatedly been shown to have a positive relationship with writing performance (Graham et al., 2007; Lee, 2013; Baştuğ, 2015). In their study, Graham et al. (2007) found that students with more positive attitudes towards writing tended to expend more effort towards writing, leading them to perform better at writing tasks than their peers with less positive attitudes towards writing. Furthermore, this study found statistically significant relationship between attitudes towards writing and writing performance. Similarly, in her analysis of data from 2007 NAEP, Lee (2013) found significant relationships between student attitude towards writing and writing scores. Interestingly, the relationships were stronger with females than males. Additionally, in his study of 735 fourth graders, Baştuğ (2015) not only found a statistically significant relationship between attitudes towards writing and writing performance, but also an inverse relationship between attitudes toward writing and writer's block (the inability to come up with ideas for writing). Indeed, attitudes toward writing has shown to be a powerful lever for writing performance. In addition to its relationship with other constructs, attitude toward writing has proven to have its own trends along the lines of gender and age.

Trends in Attitudes

Students' past stories of success and failure that have played out in the classroom inform their feelings about writing and academics (Musgrove, 1999). Negative attitudes toward writing often result in poor writing performance, while positive attitudes toward writing are more likely to result in higher performance. As students progress through

grades, their attitudes toward writing tend to become less favorable (Arneson, 2014; Hogan, 1980; Bulut, 2017; Troia et al., 2012). Research has also indicated that the older students are, the more likely their attitudes towards writing will impact their writing performance (Graham et al., 2018). Repeated negative experiences can lead to the formation of negative attitudes toward writing. Indeed, many students fear writing due to negative experiences (Musgrove, 1999) and may avoid it due to the stress they experience when writing (Vue et al., 2016). On the other hand, students who report writing more frequently, tend to avoid writing less (Troia et al., 2012). The idea behind this phenomenon is that the more one writes, the more comfortable one becomes with the skill, thus tamping away the negativity associated with it.

A study by Graham et al. (2017) found a relationship between student attitudes toward writing and word count, which is a popular measure of writing performance. This indicates that students with negative attitudes towards writing may write less, thus giving them fewer opportunities for skill development (Applebee & Langer, 2009).

Research has consistently found that males are more likely to have negative attitudes toward writing than females (De Smedt, Graham, & Keer, 2018; Ekholm, Zumbrunn, & Debusk-Lane, 2018; Kotula et al., 2014). Gender differences in attitude toward writing become evident as early as first grade (Graham, Berninger, & Abbott, 2012). Coupled with the assertion that attitudes toward writing impacts writing performance, this phenomenon has predictable, if discouraging, results. Lee (2013) found that females with more negative attitudes tended to outperform males with more positive attitudes, suggesting that attitudes toward writing not only impact, but may also predict writing performance. However, when attitudes toward writing were controlled, females still

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performed higher on writing performance assessments than their male counterparts (Lee, 2013). Lee (2013) also found a stronger relationship exists between attitudes toward writing and writing performance with girls than boys, indicating that the writing performance of males was not as reflective of their writing attitudes.

Though attitudes toward writing tend to decline with age (Arneson, 2014; Hogan, 1980; Bulut, 2017; Troia et al., 2012), research by Erdogan & Erdogan (2013) suggests that students generally harbor positive attitudes toward writing until eighth grade, at which point attitudes suffer a sharper decline. However, studies have shown that it is possible to change students' attitudes towards writing by exposing them to different types of writing experiences. Brown et al. (2011) held a two-week writers' camp where students where immersed in high-interest writing activities. As a result, all students experienced positive changes in their attitudes toward writing.

Journal writing

Educators often neglect to focus on the impact daily writing has on the life of a child (Brown et al., 2011). Journal writing is one way to provide students with daily writing practice, while providing authentic writing contexts (Williams, 2018). Research supports its benefits in the classroom (Rosário et al., 2017). Daily journal writing has also been found to increase feelings of self-efficacy toward writing (Jones & East, 2010). In addition, it is generally well-received by students (Robb, 2010). It is important that students experience writing as fun at times so they can gain the confidence they need to become more skilled at writing (Brown et al., 2011). Children's writing will flourish in a pleasant and motivating environment (Graham & Harris, 2016), where they feel comfortable expressing themselves.

A study by Rosário et al. (2017) required half of the students in the study to write in a journal once a week for 45 minutes for 12 weeks. The students could write about anything pertaining to their lives in or out of school. These journal entries were not graded nor discussed with students; the point was to give them positive writing experiences and practice writing freely. They also wrote a weekly composition based on specific prompts. The other half of the class did not write in journals but did write the weekly compositions. Results showed the students who wrote regularly in journals outperformed students who did not in the weekly compositions. In fact, students whose journal writing was of lower quality, still achieved higher writing performance than those who did not write in journals, making it evident that providing extra authentic writing tasks improves writing performance.

Journal writing is one way to integrate daily writing into the curriculum and the wealth of digital tools available for online journaling makes it easy to do so.. Many online journals offer users the ability to share, comment and interact with their peers, which creates a fully-functioning digital environment where students have the freedom and flexibility to write in a way with which they can connect (Kervin et al., 2017). Children's writing will flourish in a pleasant and motivating environment (Graham & Harris, 2016), where they feel comfortable expressing themselves. Evidence indicates the more opportunities students are given to freely write in genres that appeal to them, the more likely they will have positive experiences that will outweigh the negative (Birch, 2016; Troia et al., 2013).

Interactive Journaling

Interactive journaling is defined by Parr et al. (2008) as writing that is exchanged between students and leaders. Students write and respond to others' writing and this interaction provides an enriched writing environment (Jones & East, 2010). In the past, interactive journaling has consisted of students writing in a notebook or on a piece of paper and teachers providing responses (Taniguchi, Okubo, Shimada, & Konomi, 2017; Jones & East, 2010). But as Birch (2016) contended, if there are free online tools to facilitate learning, we should use them, and the advent of wikis and blogs changed the face of interactive journaling.

The wealth of digital tools available for online journaling makes it an easy way to integrate technology in the classroom. Many online journals offer users the ability to share, comment and interact with their peers, similar to social media, where students upload writing in the anticipation of an authentic audience's responses (Birch, 2016). Blogs provide an interactive forum for users to share and leave comments (Alkhataba, Abdul-Hamid, & Ibrahim, 2018), similar to wikis (Williams & Beam, 2019). Little research has been done on online interactive journaling beyond the use of these two digital tools, but studies have found positive impacts from their use. Birch (2016) found that students utilizing digital online journals reported feeling more confident in their writing abilities and more positive about writing in general. Jones and East (2010) contend that interactive journaling with the teacher promotes students' ability to write, while allowing the teacher to remain an active part of the teaching process. Teachers can respond to student writing and students can respond to teacher writing as a way for the teacher to model responses and comments. According to Lacina and Griffith (2012), journal

responses should be appropriate, polite, acknowledge the author, state whether agree or disagree, give details, ask questions, and check for spelling and grammar. Studies have shown that daily writing with the use of interactive journaling has increased student enjoyment of and confidence in writing (Alkhataba et al., 2018; Birch, 2018), which are both intimately connected with motivation. Motivation is made up of several constructs, two of which are feelings of self-efficacy and attitudes towards writing (Troia et al., 2013). These constructs are the focus of the current study.

Chapter Summary

National test results from the NAEP show that 75% of students across America are not achieving mastery in writing during their K-12 schooling. Writing is a skill that pervades our lives from writing job applications, to professional emails. It requires organization, critical thought, and imagination, much of which is lacking from student writing, according to NAEP. Test results suggest that writing skills are not being taught effectively in K-12 schools, especially in regard to boys, ethnic minorities, students with learning disabilities, and English Language Learners.

Students' self-efficacy has been consistently linked with performance. Writing self-efficacy appears to have the same impact on writing performance. Students with low writing self-efficacy typically underperform those with positive attitudes. Research indicates that males are more likely to have lower writing self-efficacy than their female counterparts, in addition to scoring lower on measures of writing performance. Certain teaching strategies can impact students' writing self-efficacy, as can the use of digital tools.

In an effort to improve writing self-efficacy and subsequently, writing performance, students should practice writing daily through journaling. Research indicates that the more a student writes, the more skilled he or she will become. Interactive journaling is a particular type of journaling that utilizes peer and teacher feedback to impact students' daily writing. Though it has mostly been done through pencil-paper, many digital tools exist that can make its implementation flawless and engaging.

The goal of this study is to discover how interactive journaling can impact students' writing self-efficacy, writing performance, and attitudes toward writing. Though some research has been conducted on how digital tools can impact student writing performance and writing self-efficacy, none of these addresses digital interactive journaling through the use of the online portfolio management system, SeeSaw. The research in this chapter supports the need for research in this area.

CHAPTER 3

METHODOLOGY

Research Design

The purpose of my research was to discover the impact of interactive journaling on seventh-grade students' attitudes toward writing, writing self-efficacy, and writing performance. This study required the use of action research, as it occurred in my area of study and in my sphere of influence (Buss & Zambo, 2008). The results of this study helped me to better understand how students learn so I can improve the quality of my instruction (Mertler, 2017). I used a mixed-methods design, which easily lends itself to action research (Creswell, 2013). The quantitative segments on which the study focused provided objective data on students' ratings of attitudes toward writing and writing self-efficacy, as well as their scores on writing performance. The qualitative portion consisted of student interviews, which provided more information on the impact of interactive journaling. Together, these data provided a more comprehensive image of student learning in the classroom, which is the purpose of action research.

Action research is systematic inquiry into how students learn in order for teachers to examine the context of the learning and improve instruction (Calhoun, 2002). In contrast with traditional educational research, action research requires the teacher to be directly involved with the participants in their classroom setting (Mertler, 2017). Action

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research is practitioner-research using practical knowledge (Carr, 2006), rather than a theory being tested in a far-away lab, where the researcher does not know the students or have a personal stake in their success. Much of traditional educational research aims to be generalizable; thus, it involves large, randomized samples and a control group. The aim of action research, on the other hand, is to address a small group of participants in a classroom or immediate environment, making true experimental design impossible (Cain, 2011).

Conducting action research is the key to improve education, as it is a way to carry out changes required for social improvement (Hine, 2013). Teachers get to choose what area is of most concern and apply action research to improve student learning in that area. Action research helps educators become more reflective in teaching practices by comparing their current practices with those based on research (Calhoun, 2002), rather than simply teaching the same way year after year out of habit. Action research allows me to study my own teaching practices with an array of students and use my results to "effect educational change," (Mills & Exley, 2014, p. 5) in practical ways in my classroom. While I cannot personally tailor instruction for each child, I can certainly try by conducting action research to find how different students are affected by teaching strategies and how their motivation to write might be aroused.

In my action research evaluation study, a convergent parallel mixed-methods design was employed to assess attitudes toward writing, writing self-efficacy and writing performance as a baseline assessment for seventh-grade students. Convergent parallel mixed-methods design is where the researcher separately collects and analyzes quantitative and qualitative data, but uses them both to form interpretations (Creswell,

2005). This method allowed for triangulation, which involves using more than one method to study a phenomenon (Behket & Zauszniewski, 2012). In this study, student surveys, interviews, and writing assessments were used. The use of triangulation also broadens insight into the different issues impacting the phenomena being studied (Behket & Zauszniewski, 2012). I chose mixed methods because this design allowed me to not only gather quantitative data from attitudes toward writing, writing self-efficacy, and writing performance, but also provided an opportunity to seek out the reasons behind the data by interviewing students. A mixed methods design combined with action research can produce a scientifically sound, contextually relevant study (Ivankova & Wingo, 2018). A mixed-methods design provided me with more comprehensive data so I could provide a fuller picture of how my students learn and what teaching strategies work best for them. It also allowed me to get to know my students better, which is helpful to the overall instructional environment. While my action research cannot be considered generalizable to my city, state, or country, the information derived from the study can shed light on other students in my school and in my other classes. In that way, I am not just helping 22 students; I am helping all students that come into my classroom.

Setting and Participants

Setting

The setting of the current study was my English Language Arts classroom at Middling Middle School, in the county seat of a largely rural area in southern South Carolina. There were 30 desks arranged in five rows. The classroom environment was bright and colorful, with motivational posters hung throughout. Students have remarked that just walking into the classroom improves their mood. This is all part of providing a

positive environment for learning where students are more likely to flourish in their writing (Graham & Harris, 2016). Each student had a Chromebook, as our school is part of a 1:1 initiative.

Participants

At Middling Middle School, there were 401 students enrolled in 7th grade. Using purposive sampling, 27 of those students were selected to participate in this study. These students were placed in my D period by school guidance counselors at the beginning of the year. Although I taught four classes per day, I chose to use my "D period" class as participants because they had overall good behavior and were all on the general education track (opposed to advanced or gifted) in English Language Arts. It was also my smallest class. Their class ran from 10:35 A.M.-11:35 A.M.

Participants ranged in age from 12-13 years old. 41% of participants were females, while 59% were males. 52% of participants were African American, 30% are White, 11% are Hispanic, and 2% are of mixed races. Additional demographic information can be in found in Table 3.1. It is interesting to note that 30% of students did not meet grade-level expectations for the South Carolina state Language Arts assessment in Spring 2019, while 52% obtained a score of "Approaching Expectations" of grade-level standards. Seven percent (two students) earned a score of "Meets Expectations" on the test. These state-test scores were used to place students in the general curriculum English Language Arts class.

Table 3.1 *Participant Demographics*

Demographic	Number of students (percentage)
African-American	14 (52%)
White	8 (30%)
Hispanic	3 (11%)
Mixed	2 (7%)
Male	16 (59%)
Female	11 (41%)
Met Standards	2 (7%)
Approaching	14 (52%)
Did not Meet	8 (30%)
Not Tested	2 (7%)

I was the teacher researcher and conducted the study, as well as provided the innovation. I have been teaching for twelve years, seven of which have been spent teaching English Language Arts. During the other five years, I created and taught the Creative Writing program at MMS. I have been teaching at MMS for eight years.

Innovation

The innovation used in this study was interactive journaling. Students wrote daily in short bursts and provided and received feedback from peers on their writing. Prompts were provided by the teacher five days a week, as the school calendar permitted. The prompts vary in medium, ranging from a typical written writing prompt to picture prompts. All prompts were of the narrative genre and required students to either use their imaginations or use reflective thinking about themselves in order to create a response. This continued for a period of five weeks, after which the effectiveness of the innovation was assessed. Daily writing and peer feedback were integral parts of interactive journaling and were delivered using the internet platform SeeSaw.

SeeSaw

SeeSaw is an internet platform that functions as a writing portfolio. It is available on a web browser and in mobile apps. According to commonsense.org, SeeSaw is "a robust digital portfolio and learning system" (2018) used for writing that allows students to collaborate with one another to provide feedback. Its interface is user-friendly and while it allows for student interaction, it also gives teachers complete control over the extent of student interaction and content. Teachers choose the content and which student responses can be visible to the class, with a feature allowing teacher approval for each post. The teacher can also comment and interact as needed throughout. The ability to post and interact with others through comments makes SeeSaw similar to a blog (Alkhabata, Abdul-Hamid, & Bashir, 2018).

SeeSaw organizes and keeps tracks of all entries, so each student's comments and responses are organized under each student's name, making it easy for teachers to keep track of participation. SeeSaw organizes information by student or by assignment, so the teacher can easily browse to see activity. The capability of being able to view individual student writing to see growth over time qualifies SeeSaw as a writing portfolio (Jesson et al., 2018). SeeSaw also has the capability for the teacher to approve posts before they are live on the website, but this function will not be used. Students will be taught how to use SeeSaw and some practice posts will help get them get acclimated to the tool (see Appendix A).

Daily writing prompts

Each school day, students were provided with a writing prompt. The prompts were either in the form of a text or picture. Many were mined from writing websites, while others were created by the researcher. A complete list can be found in Appendix B.

All prompts used in the journaling experience were considered to be relatable or of high interest to middle school students. This was determined through the researcher's five-year experience as a Creative Writing teacher, as well as through information gleaned from writing websites. The point of the writing prompts was to get students to use their imaginations to write; creativity was strongly encouraged.

Some example prompts were: *If you could do something that you never have done before, what would it be? Why would you want to do it?* (Dailyteachingtools.com); *If you could do something that you never have done before, what would it be? Why would you want to do it?* (teacher-created); There were also picture prompts that asked students what is going on in the picture. *Figure 3.1* shows a typical picture prompt. Responses to journal prompts had minimal required length of 3-5 lines (requirements were listed for each prompt). The term *lines* does not refer to sentences; rather, it refers to the blue notebook-like lines provided on the SeeSaw journal-writing page (see Figure 3.2). Students were able to write more than the minimum, with no maximum, but had to write the minimum to receive full credit in the gradebook. In addition to being part of the study, activity in the interactive journal was also used as a completion classwork grade in the gradebook. Failure to meet requirements resulted in a lower grade in the gradebook.

Write about what led up this picture. Where is this person going?
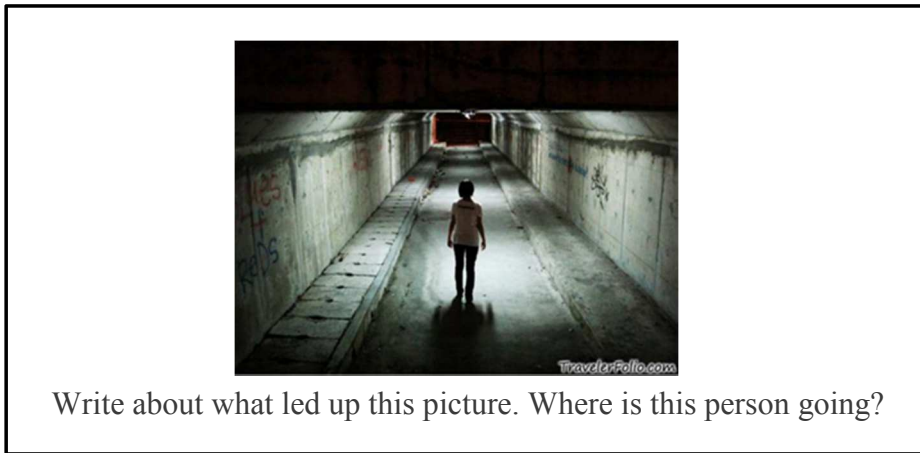
Figure 3.1. Example picture prompt

Peer feedback

   Students responded to their peers' writing in the form of comments. Students underwent training on how to effectively write a comment in response to a peer's writing (see Appendix C). While every student was required to comment on another peer's writing, the peer who received the comment was encouraged (though not required) to respond back. Students' initial comments were to be made to a student's post who did not already have a comment, so each student would be sure to receive comments. However, if a student chose to comment on more than one post, he or she could continue to comment on any posts.
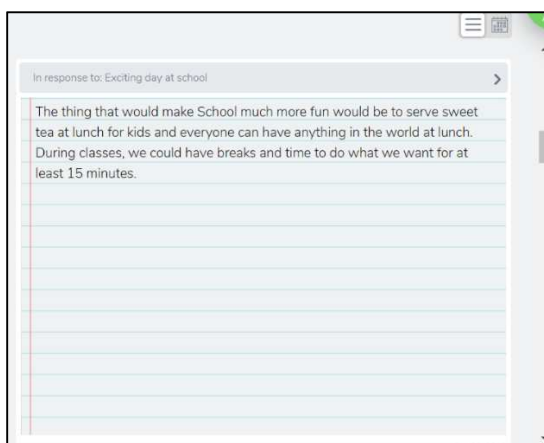
Figure 3.2. Example response page in SeeSaw.

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Justification for Innovation

      I chose to use interactive journaling because of my experience with traditional journaling. Part of my curriculum in the past has been having students respond to daily journal prompts and that experience taught me two things. First, the more often students write, the easier it becomes for them. Secondly, many students enjoy sharing what they have written. Interactive journaling not only allows students to share their ideas in writing, but it also allows an interaction about their writing to happen, which provides a more authentic writing experience (Behizadeh, 2014). Interactive journaling with feedback is similar to blogging, where one writes a post and others respond to it. Several studies have found blogging to be a successful writing strategy (Jesson et al, 2018; Birch, 2016; Alkhabata et al., 2018; Nobles & Paganucci, 2015), so it stands to reason that interactive journaling with feedback would positively impact students' writing experiences.

Data Collection

      Data was collected in a variety of ways to ensure that the most comprehensive information was available. Surveys assessing writing self-efficacy and attitudes toward writing, as well as a writing performance assessment was given before and after the intervention. Interviews were conducted after the intervention to gain a richer understanding of students' overall writing process. Table 3.2 depicts what data sources were used to answer each research question.

Table 3.2 *Research Questions and Data Sources*

Research Questions	Data Sources
1. What is the effect of interactive journaling on students' writing self-efficacy?	• Self-Efficacy for Writing Scale • Student Interviews
2. What is the effect of interactive journaling on students' writing performance?	• Writing performance measure/rubric • Student Interviews
3. What is the effect of interactive journaling on students' attitudes towards writing?	• Writing Attitude Survey • Student Interviews

Self-Efficacy for Writing Scale

The Self-Efficacy for Writing Scale (SEWS) is a self-report survey used to assess students' feeling of self-efficacy for writing (Bruning, Dempsey, Kauffman, McKim, & Zumbrunn, 2013). It consists of 16 items, divided into three subscales of writing activities: ideation, conventions, and self-regulation, but for the purposes of this study, the ideation scale was isolated (see Appendix D). The reason for this is that grammar was not assessed and the five-week innovation interval was not long enough to test self-regulation. Ideation is the ability to generate ideas and "writing cannot proceed without ideas" (Bruning et al, 2013, p. 28). The generation of ideas for writing and the way ideas are translated onto paper or on the computer are fundamental aspects of writing (Crossley, Muldner, & McNamara, 2016).

The ideation subscale was tested for internal consistency in two studies and scored an alpha of .90 and .92, respectively, indicating high reliability. Responses for each item on the SEWS were indicated on a 0-4 scale, 0 indicating *no confidence* and 4 indicating *complete confidence*. Table 3.3 shows how each item on The SEWS aligned with the appropriate research question.

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Table 3.3 *Self-Efficacy for Writing Survey Alignment with Research Questions*

Research Question	Writing Self-Efficacy Survey Questions Aligned with Theoretical Framework
1. What is the effect of interactive journaling on students' attitudes towards writing?	
2. What is the effect of interactive journaling on students' writing self-efficacy?	1. I can think of many ideas for my writing. 2. I can put my ideas into writing. 3. I can think of many words to describe my ideas. 4. I can think of a lot of original ideas. 5. I know exactly where to place my ideas in my writing.
3. What is the effect of interactive journaling on students' writing performance?	

Writing Attitude Survey

Attitudes towards writing was assessed using an instrument entitled Writing Attitude Survey developed by Kear, Coffman, McKenna, and Ambrosio (2000). It is a self-report survey consisting of 28 questions assessing students' attitudes towards a variety of writing situations and genres (see Table 3.4). Students indicated their responses using a scale of 1-4, 1 indicating *very unhappy,* 2 indicating *somewhat unhappy*, 3 indicating *somewhat happy*, and 4 indicating *very happy*.

The Writing Attitude Survey (WAS) was tested for internal reliability with Cronbach's alpha and the entire sample received a score of .88, indicating statistically significant reliability. This assessment was tested for each grade level and provided a chart for percentile ranking for scores in each grade level, making it easy to compare participants with grade-level peers. Content validity was established by the authors through the use of experts and college textbooks.

Table 3.4 *Research Questions and Writing Attitude Survey Alignment*

Research Question	Writing Attitude Survey Question
1. What is the effect of interactive journaling on students' attitudes towards writing?	How do you feel about: 1. Writing a letter to the author of a book you read? 2. Writing about something you have heard or seen? 3. Writing a letter to a store asking about something you might buy there? 4. Telling in writing why something happened? 5. Writing to someone to change their opinion? 6. Keeping a diary? 7. Writing poetry for fun? 8. Writing a letter stating your opinion on a topic? 9. Being an author who writes books? 10. Having a job as a writer for a newspaper or magazine? 11. Becoming a better writer than you already are? 12. Writing a story instead of doing homework? 13. Writing a story instead of watching T.V.? 14. Writing about something you did in Science? 15. Writing about something you did in Social Studies? 16. Writing more in school? 17. Writing down the important things your teacher says about a new topic? 18. Writing a long story or report at school? 19. Writing answers to questions in Science or Social Studies? 20. Your teacher asking you to go back and change some of your writing? 21. Your classmates talking to you about making your writing better? 22. Writing an advertisement for something people can buy? 23. Keeping a journal for class? 24. Writing about things that have happened in your life? 25. Writing about something from another person's point of view? 26. Checking your writing to make sure the words you have written are spelled correctly? 27. Your classmates reading something you wrote? 28. How would you feel if you didn't write as much in school?

Writing Pre-Test and Post-Test

In order to evaluate the impact on students' writing ability before and after the intervention, a writing performance pre-test and post-test was administered. The instrument to assess writing performance is teacher-created, with the guidance of South Carolina State Standards. This particular assessment was created because the test prompt ran parallel to the prompts in the intervention. The grading criteria and prompt were identical for both pre- and post-test (see Appendix E). The prompt was narrative, which aligned with the writing prompts throughout the innovation.

Writing performance was assessed by number of words, number of adjectives, and overall idea development (see Appendix E). McCurdy et al. (2008) links use of adjectives with improved writing performance. In addition, number of words written, or word count, has been shown to account for significant variance in children's writing (Morphy & Graham, 2007). Idea development was assessed using a teacher-created rubric indicating how many sentences were used to expand on the initial topic. The writing performance from the pre-test and post-test was individually analyzed and compared in order to discern the impact of the innovation. Table 3.4 shows the alignment of the writing performance rubric with research questions.

The writing performance assessment and rubric was based on South Carolina College-Ready Career Standards for Seventh grade English Language Arts (see Appendix F). The grading criteria was based on what has been used in noteworthy studies from Graham, et al. (2018) and McCurdy et al. (2008).

Table 3.5 *Writing Performance Alignment with Research Questions*

Research Question	Writing Performance Aligned with Theoretical Framework
3. What is the effect of interactive journaling on students' attitudes towards writing?	Number of adjectives Word Count Overall idea development

Student Interviews

While the SEWS assessed student writing self-efficacy, student interviews were conducted after the innovation to reveal more information about students' feelings about their writing self-efficacy, attitudes towards writing, and their opinions on their writing performance and how interactive journaling may have impacted these constructs. The interviews were semi-structured and organized around a set group of questions, but other questions may emerge, based on responses (Whiting, 2008). Semi-structured interviews were used to provide structure and uniformity to interviews, but also allowed for flexibility that may be needed to help explain survey responses (Creswell, 2013).

The interview questions required students to provide explanations for their responses to each of the questions in the SEWS. The questions were neutral and aligned to the study's research questions, as evidenced in Table 3.6 The complete interview protocol can be found in Appendix G.

Table 3.6 *Research Questions and Interview Question Alignment*

Research Question	Instructor Interview Question Aligned with Theoretical Framework
1. What is the effect of interactive journaling on students' writing self-efficacy?	• How do you come up with ideas for your writing? • Would you consider yourself a good writer? Why?
2. What is the effect of interactive journaling on students' writing performance?	• Do you feel like you became a better writer after using SeeSaw (interactive journaling)?
3. What is the effect of interactive journaling on students' attitudes towards writing?	• Do you like to write? Why? • Give an example of a writing prompt you enjoyed in SeeSaw (interactive journaling).

Procedures

This study was conducted in three phases. Table 3.7 depicts the timeline and activities for each phase for both researcher and participant. Phase One consisted of obtaining consent from the IRB. This consent can be found in Appendix I. The names of the students, district and school are referred to by pseudonyms. It was emphasized that there was no requirement for parental consent for participation in activities because doing so would provide an innovative educational experience for each child. Once IRB consent was confirmed, Phase Two of the study began.

In Phase Two, students completed a survey assessing writing self-efficacy created by Bruning et al. (2013) that can be found in Appendix D. Responses were recorded using a Likert Scale. Next, students completed a teacher-made writing pre-test (see Appendix E). This consisted of one narrative writing prompt. They then completed a survey assessing attitudes toward writing created by Kear et al. (2000) that can be found in Appendix G. Next, students were provided training on how to use the computer

application called SeeSaw. This training was conducted by the researcher, as there was no official tutorial video created by SeeSaw at the time this study was created. The teacher explained how to log into SeeSaw with students' Google accounts and how to join the online classroom (see Appendix A). There was a short journal prompt they will used to practice.

The teacher researcher then went over expectations for posts. Posts were expected to be school appropriate and follow guidelines as to length unless otherwise noted. They were also to be written in full sentences. There was a minimum length requirement for each entry. Each student was required to produce a practice entry. Students were instructed on how to view, like, and comment on each other's posts. Next, students received training on how to comment on their peers' writing. Aside from the technical details involved in SeeSaw, students were taught a lesson on what an appropriate comment looks like (see Appendix C). Comments were be expected to be insightful responses, interacting with the original entry. Students practiced commenting on the practice post. After everyone practiced and submitted successful posts, the training was considered complete This concluded Phase Two.

In Phase Three students were given daily writing prompts in their SeeSaw interactive journals. Monday through Friday, students were expected to respond to the provided prompts. Each prompt had a minimum number of lines expected to be written, though students were allowed to write more if desired. Students were required to comment on Tuesdays and Thursdays. Throughout Phase Three, the teacher monitored journal responses and comments. Phase Three lasted approximately five weeks.

Table 3.7 *Data Collection Procedures and Timeline*

Role	Phase One (1 week)	Phase Two (2 weeks)	Phase Three (5-6 weeks)	Phase Four (1 week)
Participant	Agree to be part of the study	• Complete writing self-efficacy • Complete writing pre-test • Complete writing attitude survey • Training for SeeSaw, an interactive journaling digital tool • Lesson on peer responding	• Participate in daily journal writing and responses	• Complete self-efficacy survey • Complete writing post-test • Complete attitudes towards writing survey • Interview • Receive reward for participating
Researcher	• Obtain consent from school district	• Administer self-efficacy survey • Administer writing pre-test • Administer writing attitude survey • Conduct training for SeeSaw • Teach lesson on peer responding	• Make sure students are participating	• Administer self-efficacy survey • Administer writing pre-test • Administer attitudes towards writing survey • Administer interviews • Debrief participants

Finally, in Phase Four, students completed all post-tests. The teacher researcher also conducted interviews with student participants after the innovation had been experienced for five weeks. Interviews were conducted during class time and took approximately 3-5 minutes per student. Interviews took place in the hallway outside of the classroom. While the interviews were being conducted, a colleague monitored the rest of the class. Interviews were recorded with the consent of the students. Students were assured that they could stop the interview at any time and were encouraged to ask questions if needed. The teacher researcher planned on providing debriefing on the study and giving students the choice of reward: a pizza party, an ice cream party, or class outside with popsicles.

Results were analyzed and reported to the school for data purposes. The assessments using surveys with Likert-type responses were quantitatively analyzed for descriptive statistics. Pre- and post-tests scores were planned to be compared using paired-samples *t*- tests. Qualitative and inductive analysis was performed on the interview questions. Writing performance was scored by the researcher and an outside source, using a rubric aligned to South Carolina state standards. Results of the study were shared with the district and school to help improve instructional practices.

SeeSaw was used as the interactive writing journal. Students arrived in the classroom each day and spent the first five minutes of class responding to writing prompts on their Chromebooks. Every Tuesday and Thursday there was an extra five minutes allowed for students to comment on another student's entry.

Data Analysis

This study used a convergent parallel mixed-methods design, in which the researcher collects quantitative and qualitative data and uses both to form interpretations (Creswell, 2005). Paired-*t* tests and inductive analysis were planned to analyze quantitative and qualitative data, respectively. Table 3.6 below shows the alignment of research questions with methods and analysis.

Table 3.8 *Research Questions, Data Sources, and Data Analysis Methods*

Research Questions	Data Source	Analysis Methods
1. What is the effect of interactive journaling on students' writing self-efficacy?	• *Self-Efficacy for Writing Scale*	• Paired *t*-test • Qualitative/inductive analysis
2. What is the effect of interactive journaling on students' writing performance?	• Writing performance measure/rubric	• Paired *t*-test • Qualitative/inductive analysis
3. What is the effect of interactive journaling on students' attitudes towards writing?	• *Writing Attitude Survey*	• Paired *t*-test • Qualitative/inductive analysis

Quantitative Data

Data from both administrations of the SEWS (found in Appendix D) was analyzed with a paired *t*-test to see if real change in writing self-efficacy occurred. A paired *t*-test determines the differences between two groups and tests if that difference is due to chance (Mowery, 2011). The p-value was set at 0.05, which if met, indicates that differences found between the outcomes is due to chance less than 5% of the time. Additional information about the SEWS can be found in the Data Collection section.

The writing performance assessment (found in Appendix E) was planned to be analyzed using paired-*t* tests. However, when the data sets were tested for normality, it was revealed that *t*-tests were not appropriate, thus Wilcoxon Signed-Ranks Tests were used to assess the difference between the pre-test and post-test writing performance subscales: number of words, number of adjectives, and idea development scores. The p-value for these tests was adjusted to 0.02.

The WAS was analyzed using a paired-*t* test. Responses from the 28-question survey were compared before and after the innovation to discover if any significant differences between the two administrations exist. The p-value was set to 0.05. Descriptive statistics of the data are provided to show the frequency of ratings. Quantitative data from the SEWS, writing performance assessment, and the WAS are represented in separate tables in order to display as much information as clearly as possible.

Inductive Analysis

Data from student interviews were audio recorded and transcribed by the researcher. The interview questions and protocol can be found in Appendix H. Data was coded and chunked into categories (Creswell, 2013), making it easier to group. Coding is a mechanism used to understand phenomena (Weston et al, 2001) and by using inductive analysis in the interpretation of coding, rich descriptions of the data can be created. Inductive analysis is "a systematic procedure for analyzing qualitative data where the analysis is guided by specific objectives" (Thomas, 2006, p.1). The purpose of inductive analysis is to witness the emergence of themes that can be used to make sense of the data (Thomas, 2006). Using the constant comparison method requires the researcher to

constantly compare units of data to ensure categories and codes stay focused (Fernandez, 2017). Information from the student interviews provided a means of triangulation with the quantitative data in order to get the most accurate interpretation possible.

Rigor and Trustworthiness

My action research implemented two quantitative methods and one qualitative method to explore the effects of interactive journaling through SeeSaw on students' writing self-efficacy, writing performance, and attitudes towards writing. The quantitative methods used were paired t-tests on writing self-efficacy and attitudes towards writing, and Wilcoxon Signed-Rank tests for writing performance. Validity of these assessments can be found in the *Instruments* section. The qualitative method used was semi-structured interviews. In order to create a research study that is rigorous, trustworthy, and minimally biased, certain practices were applied when using these qualitative methods. The use of peer debriefings, member checking, confirmability, and triangulation were all strategies I used in this study to ensure rigor and trustworthiness.

Peer Debriefing

Getting to know the students may introduce bias into my interpretation of data. To ensure trustworthiness of my data presentation, I had two colleagues function as peer examiners (Creswell, 2013), or impartial observers, who examined the data and pointed out any inconsistencies, assumptions, or bias that may have been presented in the study, so it could be removed.

Member Checking

Another method of optimizing the internal validity of my qualitative assessments is member checking, where I asked participants about their views on my interpretation of

their responses to ensure accuracy (Xerri, 2018). This improved the credibility of my study and prevented bias interpretation (Stevens, Emil, & Yamashita, 2010). I did member checking throughout each interview, as I verbally re-worded participants' responses to them to clarify my understanding.

Confirmability

An important trait needed in research studies is confirmability (Shenton, 2004). I provided this by admitting my biases as a researcher and by indicating shortcomings in my study. I also provided the study's methods in detail, so another researcher could duplicate the study if needed (Creswell, 2013). Having an external auditor is instrumental in establishing the confirmability and credibility of my study (Mertler, 2017). The audit was conducted by my dissertation chair and the dissertation committee at University of South Carolina.

Triangulation

The last important method of ensuring validity and trustworthiness I used was triangulation. This involved using "a variety of instruments and sources to collect data" (Mertler, 2017, p. 141). I combined my qualitative interview data from each participant with the quantitative assessment results of surveys and writing performance to reveal inconsistencies or connections. Triangulation helped to broaden my insight into issues underlying the research questions being studied (Bekhet & Zauszniewski, 2012). Analyzing one data source in conjunction with others through triangulation provided me with the most comprehensive information I could use for analysis.

Representation of Findings

The qualitative data gleaned from student interviews was displayed through full, rich, narrative descriptions of responses. Direct quotes have been included throughout the narrative to give readers the most accurate representation of the data. I also provided examples of interview coding/chunking in a table to reveal my organization of the interview data.

Plan for Sharing and Communicating Findings

I planned to share the results of this research study shared with my student participants by providing them with a short presentation displaying the findings and explaining with "unbiased language appropriate for the audience" (Creswell, 2013, p.132). Confidentiality of participants was maintained through pseudonyms. I planned to ask participants if they had questions about the study and if they had comments about anything that would be helpful to them as writers. A similar presentation was planned to be shown to building-level administration and comments will be collected and considered for reflection in preparation for meeting with district-level officials, particularly the Chief Academic Officer and the Lead Secondary ELA Coordinator. Feedback from student participants and education officials provides different ways to reflect on the action research process (Mertler, 2014). Upon approval from the district, the study may be shared at a local or district-level conference. After working closely with the dissertation committee and making the required revisions, I planned to apply to present at national conferences such as The National Council of Teachers of English and South Carolina Association of Educational Technology, among other professional conferences or symposiums. Finally, the research study was planned to be submitted for publication to

peer-reviewed academic journals such *as Journal of Writing Research, The English Journal, and Reading & Writing Quarterly*, in addition to action research journals, such as *Networks: An Online Journal for Teacher Research and Educational Action Research.*

CHAPTER 4

ANALYSIS AND FINDINGS

The purpose of this action research was to evaluate the effectiveness of interactive journaling on students' writing self-efficacy, writing performance, and attitudes towards writing. The research questions guiding the study are as follows:

1. What is the impact of interactive journaling on students' writing self-efficacy?

2. What is the impact of interactive journaling on students' writing performance?

3. What is the impact of interactive journaling on students' attitudes towards writing?

Quantitative Results

Quantitative measures were used to assess all three research questions. Writing self-efficacy, writing performance, and attitudes towards writing were assessed respectively, by comparing pre- and post-assessments to ascertain the change, if any, brought about by interactive journaling. Paired-sample t-tests were planned to compare the pre and post-test data of all instruments administered both before and after the innovation, but before doing these analyses, the normality of each data set was measured by conducting Shapiro-Wilk tests. Data sets for the first (writing self-efficacy) and third (attitude towards writing) research questions were determined to be parametric, so I was able to go ahead with the paired-sample t-tests. However, all of the writing performance

sub-scales used to measure the second research question were determined to be nonparametric. When data is considered nonparametric, a *t*-test cannot be run; rather, a Wilcoxon Signed-Rank test is necessary to compare the signed-rank differences between pre-test and post-test results (Zimmerman, 1996). The Wilcoxon signed-rank test was conducted for the word count, number of adjectives, and idea development subscales of writing performance. In sum, paired sample *t*-tests were run on the first and third research questions, while Wilcoxon Signed-rank tests were run on the second research question. Descriptive statistics were used to analyze the interactive journaling survey data, as well as students' preferred writing prompt.

Self-Efficacy for Writing Survey

The Self-Efficacy for Writing Scale (SEWS) was used as a pre-test and post-test to assess student self-efficacy for writing (see Appendix D). This instrument consists of three subscales, but for the purpose of this study, only the ideation subscale was used. The subscale consists of 5 questions that participants answered on a three-point Likert scale. The Cronbach alpha of the subscale for this study is .88, indicating strong reliability.

Descriptive statistics for results from the SEWS can be found in Table 4.1. A paired sampled-*t* test was conducted to compare the SEWS pretest and posttest data (N=22). Results of this test indicated that there was no significant difference between the pretest and posttest measures of writing self-efficacy *t*(21)=0.44, *p*=0.59.

Table 4.1. *Self-efficacy for Writing Survey scores*

	M_{Pre}	M_{Post}	**Difference**	*t*	*df*	*p*
Self-Efficacy for Writing	11.55	11.41	-0.14	0.44	21	0.66

Writing Performance

Writing performance was assessed using a teacher-created instrument designed to meet South Carolina State Standards (see Appendix F). The instrument consists of a narrative writing prompt (see Appendix E). Participants' responses were then analyzed by looking at number of words written, adjectives used, and idea development. Two other teachers independently assessed the writing performance responses, in addition to myself, in order to provide inter-rater reliability. The assessment was conducted in a pretest-posttest design to ascertain any change that may have occurred after the implementation of the innovation.

In addition, a Bonferroni adjustment was done for each of the writing performance sub-scales. A Bonferroni-type adjustment needs to be run if several comparisons are being used to test the same hypothesis, in order to reduce Type I error (Napierala, 2012). For this study, writing performance consisted of number of words written, number of adjectives used, and idea development. The alpha level was originally 0.05, but since three tests were being run on the same research question, the alpha level had to be divided by three in order to apply the Bonferroni-type adjustment. The adjusted alpha level $p < 0.02$ became the threshold for determining statistical significance.

Wilcoxon Signed-Rank tests were run on each part of the writing performance instrument. The output for the tests was as follows (N=23): word count, W=137, p=0.99; number of adjectives, W=106, p=0.99; and idea development, W=32, p=0.66. When

comparing these with the corrected alpha level of 0.02, none of these subscales showed significant differences from pre-test to post-test. The descriptive statistics for the writing performance subscales can be found in Table 4.2.

Table 4.2. *Student scores on measures of writing performance*

Subscales	M_{Pre}	M_{Post}	*Difference*	W	p
Number of words	68.96	76.04	+7.08	137.0	0.99
Number of adjectives	3.35	3.70	-0.35	106.0	0.99
Idea Development	1.57	1.48	-.09	32	0.67

Note. Bonferroni correction level is $p < 0.02$.

Attitudes towards Writing Survey

Student attitudes toward writing were assessed using the Attitudes towards Writing Survey developed by Kear, et al. (2000). The instrument consists of 28 items, each of which respondents answered on a three-point scale (see Appendix G). A paired sample *t*-test was conducted to indicate a difference between pre-test and post-test scores. Results were $t(22)=.59$, $p=.57$, indicating that there was no significant difference. Descriptive statistics can be found in Table 4.3.

Table 4.3 *Writing Attitude Survey scores*

	$M_{Pretest}$	$M_{Postest}$	*Difference*	t	df	p
Writing Attitude Survey	64.64	63.10	-1.51	0.59	20	0.69

Students' Favorite Writing Prompt

A section of the student interview consisted of participants reporting their favorite writing prompt in the interactive journal. The narrative writing prompts were divided into the categories of reflective and fictional, respectively. Reflective writing prompts asked

students to reflect on their thoughts and feelings or asked them how they how they would handle a situation. The fictional prompts involved students writing creatively in response to a prompt. Prompts can be found in Appendix B. Table 4.4 shows how students rated their favorite writing prompts.

Table 4.4. *Students' Preferred Writing Prompts*

Writing Prompt	Frequency	Percentage
Reflective Prompts	11	49
Fictional Prompts	12	51

Qualitative Results

Qualitative data for this study were collected through student interviews and reflections from the interactive journaling survey. Student interviews were conducted individually and consisted of six questions. The interactive journaling survey consisted of five quantitative rating questions with the opportunity to respond openly with additional information. It also consisted of two open-ended questions asking students about their favorite writing prompt and least favorite part of interactive journaling. Responses were recorded and transcribed by the researcher within three days of collection. Table 4.5 presents a summary of the qualitative data sources in this study and the number of qualitative codes developed from the inductive analysis. The following sections will explore the inductive analysis used to create codes, categories, and subsequent themes that will represent the qualitative data in this study.

Table 4.5. *Summary of Qualitative Data Sources*

Qualitative Data Source	N	Codes
Student interviews	23	53

Qualitative Analysis

One-on-one interviews were conducted and digitally recorded using a voice recording application on a personal cell phone. Personal semi-structured interviews allowed the researcher to ask follow-up questions in addition to the six fixed questions, in order to get the most comprehensive information possible (Doody & Noonan, 2013). The interview protocol can be found in Appendix H. The day after the interviews, the data was manually transcribed and documented in a Microsoft Word document. It is important to note that no software was used to analyze this qualitative data. However, Google Docs and Google Drawing were used to digitally present codes and provided a way to arrange codes into categories. In this way, Computer-Assisted Qualitative Data Analysis Software (CADQAS) was used. The data in the Google Doc was put into a Google Drawing document, where codes were organized into categories, which were subsequently analyzed and grouped into themes, and an overall emergent idea. The emerging themes were determined solely through the critical thinking of the researcher, which ensured understanding of the connections underpinning the themes (Ryan & Bernard, 2003). Then, I listened to the interviews again to check for transcription accuracy. Most responses consisted of a few words to a sentence or two. The interview transcription document consisted of 16 pages and 2,791 words.

Coding of the interview data was done in three cycles with multiple rounds of coding in each cycle. Codes are labels given to data as a way of organizing them (Basit, 2003). In the first cycle, there were three rounds of coding. In the first round, I did a line-by-line analysis, looking for codes that represented different meanings. In the second round, I utilized structural coding, which is a question-based grouping strategy (Witt,

2013), as well as in-vivo coding, where I used participant quotes to capture authentic responses (Creswell, 2013). In the third round of coding, I went back through the codes to refine language to best capture ideas presented by participant responses.

Here is an example from the first cycle of coding. I applied the code *Think about it* twelve times for responses to the question *How do you get ideas for your writing?* Another code that emerged frequently in responses to this same question was *Pops into my head*, which occurred six times. Both codes were salient in-vivo codes, making them difficult to misinterpret. These first-round coding methods not only helped me to organize the data, but they also allowed for further analysis to ensure the data remained authentic throughout the coding process. Table 4.6 shows some of the coding processes used for responses to the interview question *How do you come up with ideas for writing?*

Table 4.6. *Initial Coding of Interview Data*

Responses	Codes
"I just write the first things that came to mind"- George	COMES TO MIND
"I think about it a long time, like 6 months before I start writing." AFTER BEING REPHRASED: "Well since you have a topic you are working on, you can make an idea about it just like that."-Davone	THINK ABOUT IT
"I just think about it. It's kind of easy for me using my imagination."-Micah	THINK ABOUT IT IMAGINATION
"Sometimes, I don't know, it just pops into my head."-Daisy	POPS INTO MY HEAD
"If I get a topic I think about what the topic is about, and depending on what it is, I get ideas."-Ivan	THINK ABOUT IT

"I take a little time to think about it and then when it comes to my mind, I write it."-Laniyah	THINK ABOUT IT
"I read the question and I think about what I can write about."-Jason	THINK ABOUT IT
"It just comes to mind."-Abby	COMES TO MIND
"Uh, normally I just write about stuff that happens in my life like sports and family-related things."-Bailey	LIFE EVENTS

The second cycle of coding began with round one, where I combined codes to create categories. I did this by using focused coding. Focused coding involves the creation of categories through common codes (Pytash, 2016). Codes were put into a Google Drawing document, each in a separate text box, which allowed me to easily move around the separate codes, similar to the mapping strategy suggested by Saldaña (2016). I then grouped the codes into similar groups or categories. In the second round of coding, the groupings of categories were refined. I re-grouped and created tentative categories by using color coding. In round three, I was able to come up with final categories. Figure 4.1 shows information from the second cycle of coding. In this document, I color-coded codes that seem to be similar and included a label for their similarities along the right margin. These labels then became final categories for the full data set.
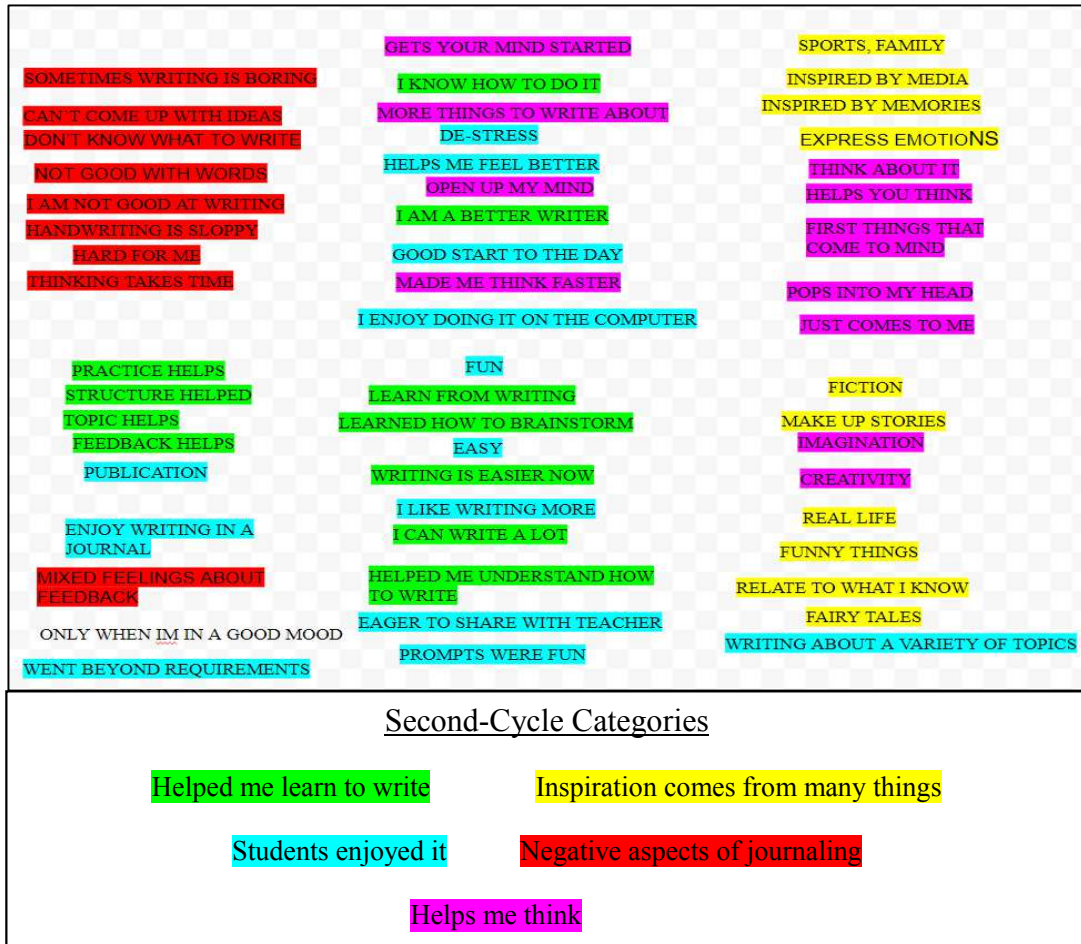
Figure 4.1 Mapping of codes into categories

Some in-vivo codes were exactly the same, which made grouping obvious at

times. Other codes were deemed to be similar after thinking critically about the meaning

behind participants responses. Thus, they were synthesized into the same category. For

example, codes such as *pops into my head* and *just think about it* were deemed by the

researcher to be similar enough to group into the category *Helps thinking process*. Many

other codes that involved thinking and imagination were also grouped into this same

category. Frequent codes such as *I am a better writer* and *practice helps*, as well as codes

with similar, salient meanings were subsumed into the category *Made me a better writer*.

When asked about inspiration, participants cited many sources, and these were listed

under the category *inspired by many things*. Codes created for complaints about the difficulty of writing as well as the dislike of writing were put under the umbrella category of *writing is hard and boring*. Lastly, codes which indicated enjoyment of interactive journaling were absorbed into the category of *Interactive journaling is fun*. These categories were refined to best represent common features of the data, but it is acknowledged that codes have different degrees of belonging (Saldaña, 2016).

In order to accurately keep track of codes and subsequent categories, I kept a codebook that contained participant responses, applied codes, and explanations for those codes. Table 4.7 shows an example of codebook entries. Keeping a codebook is a way for me to double-check the accuracy of my assignments of codes and make sure I captured responses as unbiased as possible (Peterson & McClay, 2010).

Table 4.7 *Example of Codebook Entries*

Code	Definition	Examples
Trouble coming up with ideas	Any evidence indicating difficulty in knowing what to write about	"When I'm in a bad mood, I don't like to write 'cause I can't think of anything."-Lauren
Practice helps	Any evidence indicating that repeated exposure to the journal was helpful	"Sometimes because it helps you get better at doing it when you just try to do it more and more."-Abby
Enjoyment	Any evidence indicating enjoyment	"It could be fun sometimes."-Micah

Upon completion of the codebook and the shifting and refining of categories, I then began cycle three of coding where I used theoretical coding. Theoretical coding is examining connections between codes and categories to create themes (Thornberg & Charmaz, 2014). I examined and organized the categories until I discovered three overarching themes of my interview data: Theme 1: *Interactive journaling provides inspiration and improves thinking*; Theme 2: *Participants overcame obstacles to become*

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better writers; and Theme 3: *Enjoyment of interactive journaling improved experiences.*

Figure 4.3 shows how codes and categories were combined to create selected themes. For

instance, when a participant indicated they had *trouble coming up with ideas*, it was

categorized as *writing is hard and boring*, which eventually transformed into the second

theme (*Overcame obstacles to become better writers*). Similarly, when a participant

indicated that daily practice with interactive journaling was helpful, it was categorized as

interactive journaling made me a better writer, which also came under the second theme

(*Overcame obstacles to become better writers).*

HELPS THINKING PROCESS

- Helps you think
- I think about it
- First things that come to mind
- Pops into my head
- Just comes to me
- Gets your mind started
- Opens up my mind
- Made me think faster
- Use my imagination
- Use creativity
- More things to write about

MADE ME A BETTER WRITER

- I am a better writer
- I learned how to brainstorm
- I learned from writing
- Writing is easier now
- I can write a lot
- It helped me understand how to write
- Structure helped
- Practice helped
- Topics helped

THEME 1: Provides inspiration and improves thinking

INSPIRED BY MANY THINGS

- media
- real life
- memories
- emotions
- sports
- family
- fiction/made-up stories
- fairy tales
- funny things
- relate to what I know

WRITING IS HARD AND BORING

- Writing is boring sometimes
- Can't come up with ideas
- I don't know what to write
- Not good with words
- I am not good at writing
- My handwriting is sloppy
- It's hard for me
- Thinking takes time
- Mixed feelings about feedback

THEME 2: Overcame obstacles to become a better writer

INTERACTIVE JOURNALING IS FUN

- Helps me de-stress
- Helps me feel better
- Good start to the day
- Enjoyed using the computer
- Prompts were fun
- It was easy
- I like writing more
- Enjoyed publication
- Enjoyed writing in journal
- Went beyond requirements
- Eager to share with teacher
- Enjoy writing about a variety of topics

THEME 3: Enjoyment improved experience

Figure 4.2 Mapping of codes, categories, and themes

Presentation of Findings

Three themes became apparent after analyzing the qualitative data: (a) Interactive journaling provides inspiration and improves thinking; (b) Interactive Journaling helped students overcome obstacles to become better writers; and (c) Enjoyment of interactive journaling improved experience. These themes support the assertion that *most students enjoyed interactive journaling and found it helped them to become better writers*. The relationship between the categories, themes, and assertion can be found in Figure 4.3 and will be described more fully in the sections below. Table 4.8 shows examples of how the study's themes were built from categories, codes, and participant interview responses.
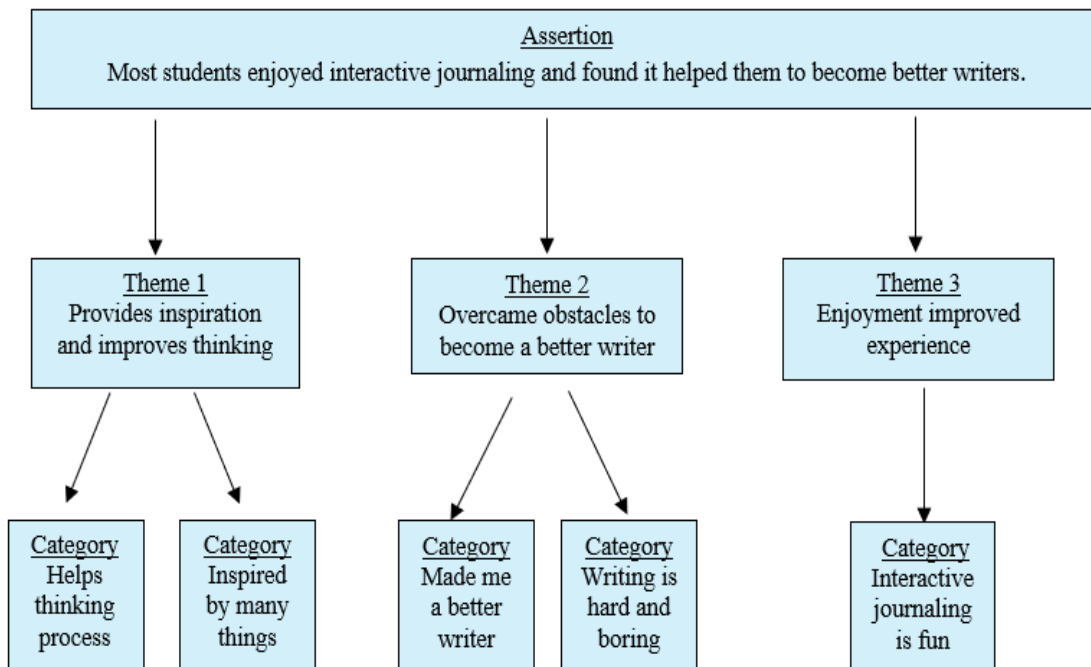
Figure 4.3 Relationships between assertion, themes, and categories

Table 4.8 *Qualitative finding at a Glance*

Theme	Category	Code	Example
Provided inspiration and improved thinking	Helps thinking process	Think about it	"If I get a topic I think about what the topic is about, depending on what it is I get ideas."
		Opens my mind	"Yes, I like to write because it lets me open up my brain, open up my mind, get to know a few things."
		Creativity	"I feel like I can be creative about things and stuff like that."
	Inspired by many things	Funny things	"I like to write about funny things, stuff like that."
		Life Events	"I usually, whenever I try to come up with ideas, I usually go to like my memories."
		Express emotions	"It helps me express my emotions."
Overcame obstacles to become a better writer	Made me a better writer	Brainstorm	"After using SeeSaw I learned how to brainstorm ideas."
		Practice helps	"Sometimes because it helps you get better at doing it when you just try to do it more and more."
		Better writer	"SeeSaw made me a better writer, but I see myself...well, I am better than I was before."

	Writing is hard and boring	Trouble coming up with ideas	"Most of the time I can't come up with stuff."
		Boring	"Usually when I write, I think about boring stuff"
		Hard	"Somethings, like if I have to write an entire story it is kind of hard for me."
Enjoyment improv- ed experience	Interactive journaling is fun	Good start to the day	"It was a good start to the day."
		Fun	"It was very fun while it lasted."
		De-stress	"I feel like it's just a great way to de-stress and have fun."

Theme 1: Provided inspiration and improved thinking. Robb (2010) found that middle-grade students have a strong desire to communicate their ideas and feelings. Theme 1 is built around students' assertions that interactive journaling helped them to become better at expressing their ideas. In addition, writing also helps students connect ideas (Gillespie, Graham, Kiuhara,& Hebert, 2014), which is supported by the improved thinking reported by student participants, and is a component of Theme 1. This theme is composed of two categories: a) helps thinking process and b) inspired by many things.

Helps thinking process. This category was built upon student responses to how they get their ideas for writing, as well as the role creativity played in improved thinking processes. When faced with a writing prompt each day, some students had a difficult time knowing what to write about. However, after using the interactive journal, many students reported being better able to think. While many reported *ideas just pop in my head*, others

indicated that coming up with ideas sometimes takes a while, and may depend on the topic:

Laniyah:	I take a little time to think about it and then when it comes to my mind, I write it.
Jason:	I read the question and I think about what I can write about.
Sage:	I just think about it in my head and like be creative about it

Some students indicated that interactive journaling helped them come up with ideas more easily.

Laniyah:	After using SeeSaw I learned how to brainstorm ideas.
Micah:	It kind of opened my mind a little bit more.
Lauren:	It made me think faster of what I was writing about, we only had a few minutes to do it.

Writing in response to a prompt can help develop students' ability to come up with ideas and inspiration (Robb, 2010). This was expressed by the following students:

Sarah:	I don't really know what to write about unless there is a topic in front of me.
Ivan:	If I get a topic, I think about what the topic is about, and depending on what it is, I get ideas.

The way teachers define creativity may influence the ways in which they facilitate creative development (Rubenstein, Ridgley, Callan, Karami, & Ehlinger 2018). In this study, I chose a variety of narrative prompts such as: *An elderly person escapes from a retirement home. What does he or she do for fun that day?* and *If you were in charge of school, what would you change?* (for more examples, see Appendix B). I used prompts I

believed participants would find interesting and would propel their creativity. This seemed to be the case with some students:

Kane: The prompts you told us to do it gives us like more creativity

Deandre: I can express my creative ideas without having to say anything

Creativity, personal reflection, and idea development are core components of writing (Daffern, Mackenzie, & Hemmings, 2017). It makes sense then, that these elements all play a part in students' interactive journaling experience. Another important aspect of Theme 1 is the inspiration used by students to complete their writing tasks.

Inspired by many things. To inspire comes from the Latin *inspirare* and means to "infuse with life" and "to stimulate or impel some creative or effective effort" (Smith, 2008, p.7). Indeed, students may find inspiration when faced with relatable writing tasks (Ballinger, 2009). Several students indicated they found topics to be relatable:

Daisy: Yes. Usually when I write, I think about boring stuff, but your prompts weren't about boring stuff.

Doug: Yes, because with the prompts you told us to do it gives us like more creativity to do.

Davone: Yes, because it is pre-made and helps you think bigger about things.

These responses indicate students were inspired to write after being given a prompt. Inspiration facilitates creativity (Rubenstein et. al, 2018), and if one does not have to wait for inspiration to strike, one may find writing to be relatively stress-free (Bruning &

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Horn, 2000). Vue et al. (2016) found that seventh-grade students in their study considered inspiration to be the most important aspect of writing motivation. One student even indicated that the interactive journaling experience inspired her to create a book.

> Cheyanne: Thanks, now I am making a least like 2 books called *Archives*. They are comics with words in it. I hope I can show them to you one day when I finish.

Her use of the word "now" implies that she is doing something now that she was not before the interactive journaling. This was in response to the *Additional Comments* question on the Interactive Journaling Survey. Indeed, the importance of inspiration was communicated by students and was integral to the construction of Theme 1.

Theme 2: Overcame obstacles to become a better writer. Fostering independent thinking can help students persist when faced with obstacles (Green & Johnson, 2009). In this way, it is easy to see how Theme 1 and Theme 2 are connected. Many students indicated they felt they were better writers after having used the interactive journaling. Others indicated they did not like writing because they found it to be difficult or boring. Theme 2 was constructed of two main categories: a) made me a better writer and b) writing is hard and boring.

Made me a better writer. Many students indicated that interactive journaling helped them become better writers. Indeed, journaling can positively impact students' self-growth (Fritson, 2008). The more a child works at overcoming obstacles, the easier they are able to, it seems. Brainstorming was one way students reported that helped them overcome obstacles to become better writers. This was in response to the question *Do you feel like you became a better writer after using SeeSaw (interactive journaling)?*

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Ivan:	After using SeeSaw I learned how to brainstorm ideas.
Lauren:	I think it made me a better writer because it made me think faster of what I was writing about.
Deandre:	Now I can, when I have to write about something, I can understand like what I need to write about.

Words and phrases such as *now* and *after* indicate they feel they are better writers after having used the interactive journaling. Specifically, they specified that interactive journaling helped them overcome the obstacles of knowing what to write about by helping them brainstorm and think faster. Indeed, consistent journal writing sessions can engage students and inspire their development into master writers (Jones & East, 2010). Several students did indicate that the daily practice in writing was instrumental to improving writing skills.

Abby:	It helps you get better at doing it when you just try to do it more and more.
Jason:	Every day you write you get better at it
Bailey:	With SeeSaw you get different types of subjects to give you practice with writing.

Writing is hard and boring. While most interview responses centered on the positive and beneficial aspects of interactive journaling and writing in general, some students did report finding writing to be boring or difficult. A few students indicate they had trouble knowing what to write about.

Daisy:	I really don't like writing because most of the time I can't come up with stuff.,

Deandre: Sometimes I can't come up with creative stuff.

Kane: Sometimes I get them mixed up

Because writing requires other skills such as reading and thinking, some may find it difficult and actively avoid it (Erdogan & Erdogan, 2012). Some students may think of writing as scholarly essay questions they sometimes get on standardized testing (Tindal, 2017), instead of writing as an engaging way to communicate ideas. While a few students indicated that sometimes they had trouble with writing in general, no students indicated they found writing to be boring or difficult when asked about their writing experiences associated with the interactive journaling.

Theme 3: Enjoyment improved experience. The overwhelming majority of students indicated they enjoyed the interactive journaling experience. The word *fun* was mentioned nine times in the interviews. When students were asked if they like to write, most responses were positive:

Laniyah: Yes, ma'am. 'Cause it gets you started with your day and I
                think it gets your mind going.

Davone: I feel like it is just a great way to de-stress and have fun.

Kane: Yeah. I just do it just for fun when I'm bored.

Studies show that if students get to engage in activities they enjoy, their motivation to learn increases (Wang & Han, 2001; Behizadeh, 2014). Providing students with meaningful choices is one way to promote enjoyment in writing (Zumbrunn & Karuss, 2012). Similarly, when asked which writing prompts students preferred in the interactive writing journal, participants chose the ones they found to be the most fun or could write the most about.

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Davone:	It was when there were two paths, that way it allowed you to make anything because you would be able to make your own creation.
Sage:	The elderly one because I think it was fun to write about it
Sara:	The one I enjoyed is when you asked if you lost something valuable.

These participant responses support the notion that meaningful topics enhance students' motivation to write (Graham et al., 2017).

Chapter Summary

Quantitative and qualitative data were analyzed to answers the research questions for this study. Quantitative data included participants' pre-test and post-test from the WAS (n=21), the SEWS (*n*=22), and writing performance (*n*=23). The Interactive Journaling Survey was also administered following the intervention. Descriptive statistics and paired *t*-tests indicated no significant differences from pre-test to post-test for neither the WAS nor the SEWS. The writing performance measure was found to be non-parametric, so a Wilcoxon signed-rank test was run on all sub-scales of writing performance in place of the paired *t*-test. All subscales showed no significant differences from pre-test to post-test.

Qualitative data were also collected in the form of post-intervention one-on-one student interviews (*n*=22). Inductive analysis generated the assertion that *most students enjoyed interactive journaling and found it helped them to become better writers*. This assertion is supported by the following themes: (a) provided inspiration and improved thinking; (b) overcame obstacles to become a better writer; and (c) enjoyment improved

experience. The data supports that students enjoyed interactive journaling and felt it made them better writers. The quantitative and qualitative data did not align, indicating a complexity that will be further analyzed in the following section.

CHAPTER 5

DISCUSSION, IMPLICATIONS, AND LIMITATIONS

This chapter situates the study's finding within the literature available on interactive journaling, writing self-efficacy, attitudes towards writing, and writing performance. The purpose of this study was to examine the impact of interactive journaling on students' writing self-efficacy, attitudes towards writing, and writing performance in a seventh-grade classroom. Both quantitative and qualitative data were collected. Quantitative data showed little impact on students' writing self-efficacy, attitudes towards writing, and writing performance. However, qualitative data showed that students' perceptions of the interactive journaling were positive, as were their opinions on its impact on their writing. Analysis of the qualitative data led to the assertion that *Most students enjoyed interactive journaling and found it helped them to become better writers.* The following sections will present the discussion, implications, and limitations of this study.

Discussion

It is important to position the results of this study within the existing framework of research. Many studies have examined attitudes towards writing, writing self-efficacy and how these concepts impact writing performance. However, little is known how interactive journaling can impact writing self-efficacy, writing performance, and attitudes towards writing. To answer the research questions, the data from this study was analyzed

and compared with current research in order to draw reasonable conclusions that contribute to the existing knowledge base. This discussion is organized by research question.

Research Question 1: What is the impact of interactive journaling on students' writing self-efficacy?

Self-efficacy is one's beliefs about his or her ability to complete a task (Bandura, 1997). According to Bandura (1997), those with higher self-efficacy are more likely to perform better on a task than those with low self-efficacy. Many studies have applied the theory of self-efficacy to writing and writing performance (Bruning et al., 2013; Sanders-Reio, et al., 2014; Hetthong & Teo, 2013) and have found varying degrees of positive correlations. While the current study does not specifically investigate the link between writing self-efficacy and writing performance, the study assumes that an increase in self-efficacy will positively impact student writing.

Journaling has been shown to have a positive impact on individuals' self-growth (Fritson, 2008), helping them to articulate their feelings and beliefs (Spalding & Wilson, 2002) and inspiring their development as writers (Jones & East, 2010), all of which indicate a likelihood of an increase in self-efficacy toward writing. In fact, several studies have found links between journaling and increased writing self-efficacy (Fritson, 2008; Jones & East, 2010; Alberth, 2019).

In order to answer the first research question, both quantitative and qualitative data were collected. Findings from the Self-Efficacy for Writing Scale (SEWS) before and after a six-week interactive journaling intervention were analyzed with a paired-sample *t* test. Results indicated no significant difference in writing self-efficacy between

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the pre-test (M = 11.54, SD = 2.13) and post-test (M=11.41, SD=2.06) t(21) = .44, p >.05. These results line up with a study done by Rosario et al. (2017), which found that students did not experience an increase in self-efficacy after a journaling experience. However, when participants were asked if they felt themselves to be good writers, their responses and explanations indicated that: students' identities as writers are complex and some students attributed their identity as good writers to the interactive journaling.

Students' identities as writers are complex. When asked if they would consider themselves good writers (which directly assessed student's writing self-efficacy), many students responded positively. Out of 23 responses, 18 (78%) indicated they see themselves as good writers. Some students were specific about what makes them good writers.

Researcher:	Do you consider yourself a good writer?
Davone:	Yes, I can make about ten pages in a few hours.
Micah:	Yes. I mean I have a pretty big imagination, like there's a little kid inside of me.
Sage:	Yeah, because like I feel like I can be creative about things.

Some students who indicated they did not feel they were good writers attributed it to lack of skills.

Daisy:	Not all the time, because sometimes I don't know what to write.
Laniyah:	No. I don't know fancy words that much.
Kara:	No. I just don't consider myself a good writer.

Research indicates a connection between writing self-efficacy, writing ability, and writing apprehension (Sanders-Reio et al., 2014). When students have anxiety about writing, they are likely to experience low writing self-efficacy, and their writing performance may reflect that (Pajares & Johnson, 1996). This connection makes it clear that targeting writing self-efficacy may be key to improving writing performance.

Some students attributed their identity as good writers to the interactive journaling. Even though the interactive journaling tool, SeeSaw, was not mentioned in the question, some students attributed their identity as good writers to having used the interactive journal.

Researcher:	Do you consider yourself to be a good writer?
Ivan:	Yes, because after using SeeSaw I learned how to brainstorm ideas.
Jason:	Almost, because I'm just now starting SeeSaw and just now writing like that.

Students need to reconceptualize their identities as writers (Brown et al., 2011) and students' experiences of success using the interactive journal may be the impetus needed to do just that. The interviews revealed that some students believed their writing self-efficacy was, indeed, positively impacted by the interactive journaling experience.

The answer to the first research question is, indeed, complex. Qualitative data revealed that students had thoughts and opinions about their feelings of themselves as writers that could not be adequately captured with objective test measures. It could be that students did not all interpret items on the SEWS the same way, or there was a misunderstanding of the Likert scales. Another possibility is that self-efficacy for writing

is so complex, it cannot be communicated through simple, close-ended questions. Either way, more research is needed to uncover the discrepancy between qualitative and quantitative responses.

Research Question 2: What is the impact of interactive journaling on students' writing performance?

Research has found consistent journal writing to be correlated with improved writing performance (Jones & East, 2010; Rosario et al., 2017; and McCurdy et al., 2008). In fact, just extra time spent writing, with or without a journal, leads to gains in reading and writing performance (Graham & Harris, 2016). The impetus for the second research question was to see if consistent interactive journaling would be enough to improve writing performance. In the current study, writing performance was measured by the constructs of number or words, number of adjectives, and idea development, all based on a response to a narrative writing prompt administered before and after the six-week interactive journaling innovation. For each response, number of words and adjectives were counted respectively. Idea development was assessed by counting how many sentences were related to one topic. For example, if there was only one sentence discussing each topic, that resulted in a score of one. If there were two sentences that talked about one topic, that resulted in a score of two, and do one. This indicated idea development. Results from the Wilcoxon Signed-Rank tests revealed that although there was an increase in number of words written from the pre-test (M=68.96) to the post-test (M=76.04), the difference was not statistically significant (W=137, p=0.99). Number of adjectives showed no significant difference from pre-test (M=3.35) to post-test (3.70), with W=106, p=0.99. Finally, idea development scores from pre-test (M=1.57) showed

no significant difference from post-test (M=1.48), with W= 32, p=0.66. The corrected alpha level for all of these non-parametric tests was 0.02.

Still, when asked in personal interviews if they felt SeeSaw (interactive journaling) made them better writers, almost every student in this study (91%) indicated they felt like they were better writers after doing the interactive journaling. This question assessed students' opinions of their own writing skills after using the interactive journaling, which is indicative of their perceptions of their own writing skills or performance. Some indicated the consistent practice was beneficial, whereas others indicated the array of writing prompts helped them use their imaginations more, making it easier to write.

Researcher:	Do you feel like you became a better writer after using SeeSaw (interactive journaling)?
George:	Definitely. It helped me open up my mind.
Jason:	Yes, ma'am because every day you write you get better at it and the questions help.
Mike:	Yes, ma'am, because now I know; like the last grade (6th grade), I didn't know how to write clearly.
Callie:	SeeSaw made me a better writer, but I see myself...well I am better than I was before.

Students frequently indicated the different types of prompts helped them become better writers.

Kane:	Yes, because with the prompts you told us to do it gives us like more creativity.

Sarah: Yes, because I don't really know what to write about unless there is a topic in front of me.

Abby: Yes, because with SeeSaw you get different types of subjects to give you practice with writing.

Clearly, students felt that interactive journaling helped them become better writers because of practice and the variety of topics. Indeed, people form strong impressions from their own writing experiences, particularly by judging their levels of success (Bruning & Horn, 2013).

There did not appear to be a change in writing performance levels when analyzing writing samples. However, students reported feeling that their writing performance had improved. Success in writing can be judged in many ways; perhaps the method of writing performance assessment in this study did not match up tostudents' ideas of successful writing performance. After all, it was not defined for them. Rather, they were left to openly interpret their writing success, which leaves it completely up to each individual student to judge. Perhaps a definition of writing performance or success would assist in helping these definitions align in the future.

Research Question 3: What is the impact of interactive journaling on students' attitudes towards writing?

Attitudes toward writing have the potential to influence a variety of writing outcomes (Jones & East, 2012; Eckholm, Zumbrunn, & Debusk-Lane, 2018). Research has shown that students who have a positive attitude towards writing are more willing to devote effort to it than peers with negative views of writing (Graham & Harris, 2016; Wright et al., 2019). One study found that after a two-week intensive writing camp,

students displayed an improvement in attitudes towards writing (Brown, Morrell, & Rowlands, 2011). Another study found an improvement in attitudes towards writing after students participated in a collaborative writing activity (Suwantership & Wichadee, 2014). All of this supports the notion that writing activity has a positive impact on attitudes towards writing (Polotcan & Sahin, 2019). Positive attitudes towards writing may lead to improved writing performance (Graham, Berninger, & Fan, 2007). These ideas are the driving force behind the third research question.

Both quantitative and qualitative data were used to assess the third research question. Paired-sample t-test results from a 27-question question survey, the Writing Attitude Survey (WAS) indicated there was no significant change in attitudes towards writing from pre-test ($M = 64.62$, $SD = 15.50$) to post-test ($M=63.09$, $SD=10.92$), $t(21) = 0.59$, $p < .05$, suggesting that interactive journaling did not impact students' attitudes towards writing. However, when students' attitudes towards writing were assessed with the interview question *Do you like to write?* responses showed that 91% of students liked to write. Their responses show that students' attitudes towards writing are influenced by a variety of factors such as their abilities to use their imaginations and their positive feelings towards using the interactive journal.

When asked if they like to write and why, students frequently cited getting to use their imaginations as being the top reason, in addition to making them feel better.

Researcher:	Do you like to write? Why?
DJ:	Yes, because it gives me more ideas and more stuff.
Deandre:	I like to write because I can express my creative ideas without having to say anything, like without talking.

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> Davone: Yes, I like to write because it lets me open up my brain,
>
>   open up my mind, and get to know a few things.

Others indicated that writing just makes them feel better.

> Davone: Yes, because I feel like it's just a great way to de-stress and
>
>   have fun.
>
> Mike: Yes, because sometimes when I don't feel well, I just write.
>
> Callie: I like it because you get to express your feelings.

These sentiments reinforce what Purcell, Buchanan, and Friedrich. (2013) found in their study:

> They [Students] enjoy writing. When you talk to these kids, they like to
>
> write.   They love to write, and when you look at what they're writing,
>
> they're talking about themselves and expressing themselves. Maybe not
>
> well, but they are speaking their minds, so they are, I think, exploring who
>
> they are and what they're about. (p. 19)

Students expressed not only that they like to write, but provided several different ways it benefitted them. Indeed, journaling is a positive outlet for expression (Zhou & Brown, 2015) and a way to channel one's perceptions and thoughts that may lead to action (Peterson, 2010).

Although most students in this study stated they liked writing, two students (9% of sample) indicated they do not enjoy it.

> Sarah: It takes too much time and is too difficult.
>
> Daisy: I really don't like it because most of the time I can't come
>
>   up with stuff.

Indeed, negative experience with writing may foster poor writing motivation that is challenging to combat (Hall, 2016), especially in the short amount of time of six weeks. The differing results of the qualitative and quantitative data centered on student attitudes towards writing in this study make it evident that attitudes toward writing are complex and indeed, require further analysis.

The quantitative and qualitative assessments of attitudes towards writing yielded different results. One reason for that may be that the complexity of attitudes, which consists of psychological constructs such as mood and motivation, is difficult to assess with close-ended questions. Like self-efficacy, attitudes require participants to use meta-cognition, making them think about how they think and feel. This is a difficult concept for many people and may not be possible for some. Open-ended questions required students to out their complex thoughts and ideas into words. Focusing on qualitative data collection may illuminate the intricacies involved in the forming of student attitudes towards writing.

Implications

The current study has implications for me as a teacher, writing in the classroom, as well as implications for future research. The three types of implications are personal implications, implications for writing in the classroom, and implications for further research.

Personal Implications

This study has helped me grow as an educational practitioner as well as a researcher. Reflecting on the lessons learned from this study will help my growth as an educator and provide me with insight into using technology to incorporate writing into

my curriculum. These major lessons are be aware of student attitudes and feelings of competency, and how to collect and analyze quantitative and qualitative data.

Be aware of student attitudes and feelings of competency. Students often find writing to be a challenging and stressful task (Vue et al., 2016). If teachers just focus on the teaching of the content without taking learner characteristics into account, writing will continue to be an unpleasant task for many students. This study revealed that students' feelings towards writing (attitudes) are important to them and though the quantitative data did not show a difference in writing self-efficacy or attitudes towards writing, the qualitative data revealed that most students felt positively toward writing after the interactive journaling experience. Some students attributed their positive feelings to having used the interactive journal. Most students also indicated they feel confident about their writing skills (writing self-efficacy) in the interviews. Vue et al. (2016) posits that indeed, self-efficacy and attitudes impact motivation for writing. Dement (2008) found that having a positive attitude eventually leads to improvement in writing ability. This finding was not able to be corroborated in the current study because not only was the study short (six weeks), but due to the coronavirus pandemic, the rest of the school year was spent online, limiting opportunities to assess improvement in writing. It would be interesting to see the long-term impact of this study on participants in their approach to writing. Nevertheless, students showed an undeniable enthusiasm for writing in their interviews. Harnessing this enthusiasm for writing is crucial in developing confident and competent writers. This can only be done by taking student views of themselves as writers and their feelings towards writing into consideration when designing writing curriculum.

Collecting and analyzing quantitative and qualitative data. Both quantitative and qualitative data were collected and analyzed in this study. I used a convergent parallel mixed methods design, where I separately collected quantitative and qualitative data and compared results to see if they confirm or contradict one another (Creswell, 2013). I used mostly quantitative data due to the more objective nature of analyzing results. However, looking back, I wish I had focused more on qualitative data collection. I feel like I got the most in-depth and relevant information from the qualitative data, which I only collected at the end of the study. This meant that I was not able to compare qualitative data before and after the interactive journaling intervention to truly understand its impact. Qualitative data such as interviews can provide unique insight into human thought and behavior in a natural setting (Daniel, 2016). As I was interviewing students, I could tell if he or she did not understand the question and I could re-word it to ensure comprehension. Participants could also add more information and expand on responses to provide a clearer picture. The quantitative data, on the other hand, depended on students' interpretation of each question, and their willingness to seriously consider their responses instead of rushing through. The quantitative data was easy to collect and analyze, but I found it to provide limited insight into participants' experiences.

My analysis of the quantitative data on writing self-efficacy, attitudes toward writing, and writing performance showed little to no improvement from pre-test to post-test, yet the qualitative data I collected in the form of interview questions, revealed that participants did indeed indicate they experienced change in these areas. Inductive analysis of the interview data was paired with comparison of descriptive statistics and paired-*t* tests to formulate conclusions, themes, and the overall assertion of this study. My

experience collecting and analyzing data for this study was enriching and revealed to me the necessity of qualitative research in action research. While qualitative data can reveal phenomenon, qualitative data can help to explain it, by allowing participants to shed light on important information that may not have been included in quantitative measures, such as surveys (Kozleski, 2017) and in this case, provides insight into how strategies might be used in different contexts.

Implications for Writing in the Classroom

This study reveals two major implications for writing in the classroom: the importance of student input when making curriculum decisions; and utilizing technology to provide an interactive element to writing.

Importance of student input when making curriculum decisions. It was clear from the interviews that students have real interests, preferences, and relationships with writing. If we do not pay attention to these qualities, we will be missing out on getting to know students, as well as deprive students of their opportunities to flourish in writing. Involving students in the creation of writing prompts and curriculum has been shown to result in enhanced student achievement and increased engagement (Brough, 2012; Ballinger, 2009). A good approach would be to offer students a range of options on which to write about. Indeed, offering students a choice has been touted as an evidence-based best practice (Graham & Harris, 2016). In fact, Vue et al. (2016) found that allowing students to choose their writing topics led to higher writing self-efficacy. While I did not offer a variety of prompts each day, I offered a variety throughout the six weeks, and students indicated they enjoyed the different writing prompts. It is important to note that when asked about their favorite writing prompts, they did not all choose the same

ones; in fact, all prompt genres were equally popular, indicating they have a variety of tastes and interests. This study made it increasingly clear that students' input on writing tasks is sorely needed in order to more fully impact their attitudes towards writing, writing self-efficacy, and writing performance.

Utilize technology to provide an interactive element to writing. The participants in this study reported enjoying the interactive journal. While a journal can be done with paper and pencil, using a digital format is an incentive to write for many students. Students in this study attested to enjoying using the interactive journal, which indicates they enjoyed the technological aspect of the journal, as well as the writing itself. Digital technologies give students a reason to write (Purcell et al., 2013). A lot of young people spend their free time using social media and texting, both of which involve writing. However, students do not often consider this as writing. In fact, many students consider writing as something their teachers make them do (Purcell et al., 2013), which feels more like a chore. However, adding the digital element can add student interest, especially when an opportunity for social interaction is offered. Adding an authentic audience increases student interest and motivation (Behizadeh, 2014; Purcell et al., 2013). Students in this study enjoyed sharing their ideas and views and responded mostly positive to receiving feedback on their work. This, along with existing research, indicates adding technology to writing activities could prove to increase student enjoyment and motivation.

Implications for Future Research

   The findings and interpretations derived from this study indicate two implications for future research: longer duration of interactive journal implementation is needed; and different research design and instrumentation should be used.

   Longer duration of journaling is needed. One of the premises of this study is that writing performance will improve the more a person writes (Applebee, 2000; and Graham & Harris, 2016). The duration of six weeks for this study was chosen due to its convenience for the dissertation timeline. While this study's participants reported to have been impacted in this amount of time, results from the surveys and writing performance task suggest that perhaps the intervention period was not long enough to have a significant impact on writing performance, writing self-efficacy, or attitudes towards writing. Rosario et al. (2010) conducted a similar study that lasted 12 weeks and found that frequently writing in journals significantly impacted writing performance. It is recommended that future studies have a duration longer than 6 weeks.

   Different research design and instrumentation. This study utilized the convergent parallell mixed methods design, where I separately collected quantitative and qualitative data (Creswell, 2013). Equal emphasis was given to the quantitative data and qualitative data and while each were analyzed separately, they were interpreted together. (Demir & Pismak, 2018). In this case, the qualitative and qualitative data were contradictory; rather, the qualitative data revealed another dimension to students' feelings and thoughts about writing that were not found in the quantitative data. Therefore, I recommend using more qualitative measures such as observation and interviews that could be done more often throughout the interactive journaling period to get more

precise and comprehensive information about attitudes towards writing and writing self-efficacy. Quantitative assessment will still be needed, particularly in regard to writing performance, but should not be more abundant than qualitative assessment, should this study be replicated.

This study may also be improved by using different instrumentation. The survey used to assess students' attitudes towards writing covered a wide of variety of situations, many of which were unrelated to the areas targeted by the study. This may have led to the insignificant findings of the impact of interactive journaling on students' attitudes towards writing. It would be ideal if a new instrument was created for the sole purpose of assessing attitudes that would be directly impacted by the journaling intervention. Furthermore, the quantitative measure used to assess writing self-efficacy was simply a subscale of a larger assessment and was not created to stand alone. Admittedly, quantitative self-report surveys may not be ideal for noting subtle changes in something as intangible as attitudes towards writing and writing self-efficacy (Rosario et al., 2016), which are subject to the honest sharing of participants' perceptions (Webb et al., 2016).

Limitations

This study, like all action research, comes with inherent limitations. Limitations include 1) lack of generalizability; 2) inappropriate instruments; 3) the novelty affect; 4) the covid-19 pandemic, and 5) minimal journal interactions.

The essence of action research is to focus on a group within the researcher's sphere of influence and cannot be generalized beyond this context (Buss & Zambo, n.d.). The small sample of this study (N=22) makes it unlikely that the results will be replicated

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outside of this classroom. Therefore, lack of generalizability is the first limitation of this study. However, this is inherent in action research and was expected at the start of the study.

The second limitation observed by the researcher is inappropriate instrumentation, particularly the WAS survey. The WAS asked 28 different questions about writing in different situations, such as writing in Social Studies and Science class, as well as student preference of writing over other activities. Responses to these questions did not differ much from pre-test to post, indicating a lack of attitude change. Upon closer inspection of the questions in the WAS, it seems unlikely that the answers to many of the questions would have been impacted by the interactive journaling. For example, number 16 asks how students feel about writing down the important things their teacher says about a new topic. This is equivalent to taking notes, which is not something addressed by the interactive journal; in fact, the journal focused on creative writing, which is the opposite of copying down what someone says. It makes sense that the response to this question would not be changed after experiencing the interactive journal. Therefore, it is practical to wonder if this assessment tool was appropriate to use for this study. It seems that a more direct question such as "Do you like to write?" before and after the intervention would have been more suitable to find a real change in attitude. Unfortunately, this question was only asked at the end of the study.

A third limitation is the novelty effect, where participants respond more positively during the start of a study because of its novelty, but performance tends to decrease as time goes on (Pisapia, Schlesinger, & Parks, 1993). At the start of the study, students were excited to be a part of something they considered elite and were eager to do the pre-

tests and get started with the study. By end of the study, they were noticeably less excited and some even complained about completing the surveys again. I suspect some rushed through them and this would certainly impact their post-test scores.

The study's fourth limitation is the onset of the coronavirus pandemic of 2020. While most of the study had been concluded, there were still a few participants who had not yet taken their post-test surveys. Consequently, there were fewer participants with complete results, decreasing the sample size. In addition, students were not able to receive their reward for participating in the study before we abruptly had to quarantine. Thus, all stages of the study were not able to be completed.

The fifth and final noted limitation is the underdevelopment of the interactive portion of the journal. It was the researcher's intention that students respond to each other's work in regular intervals; however, many students were still writing their posts when they were supposed to be responding to their peers. Due to the chaotic nature of a classroom (students absent, using the restroom, students not responding within the allotted time), peer responses became a secondary concern and were often not completed at all.

Closing Thoughts

This study began with my interest in connecting students to writing through technology and I counted on the interactive journal to impact self-efficacy and attitudes towards writing. I believed an increase in these constructs would improve writing performance. While the quantitative data did not support this connection, students' interview responses indicate there is potential for interactive journaling in the classroom

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and this information is enough to encourage me to keep trying different ways of integrating interactive journaling in my classroom.

The worldwide pandemic that commenced during the close of my study and has continued through the writing of this dissertation has resulted in blended online learning environments, making investigation into online writing and interaction more valuable and necessary.

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APPENDIX A

SEESAW LESSON PLAN

Agenda	Details
Teacher will show students how to log into SeeSaw.	• Students will use their district email address to create an account/log in to SeeSaw. They will join my class by using the class code I provide.
Teacher will explain and show students the different features of SeeSaw.	• The teacher will show students the different tabs and how to access class assignments. Students will complete a practice writing prompt on SeeSaw. They will learn the expectations of posts: they must meet the required number of lines, they must be on the assigned topic, and must not be inappropriate. They must show that they understand by submitting a post.
Conclusion	• Teacher answers student questions.

APPENDIX B

FIVE WEEKS OF WRITING PROMPTS ON SEESAW

<u>Week One</u>

1. Describe an exciting day at school. Use your imagination! 3 lines.

2. ***Imagine you woke up with the ability to fly. What would you do and where would you go?

3. *What do you consider your greatest accomplishment to date and why?

4. ** What is this woman running to or from? Explain.

5. Write a story including All of the following words: jolly, orange, yawn, slide, girl, puffy, bridge, beat.

<u>Week Two</u>

1. ***An elderly person escapes from a retirement home. What does he or she do for fun that day?

2. ***Write about something valuable you lost or broke. What happened and how did you handle it?

3. *Imagine you are an animal. What animal are you? Write five lines about your day as that animal. Feel free to write in 1st person. 5 lines.

4. **What is this man yelling about?

5. Imagine you are 10 years in the future. What is your life like? Where do you live? Use your imagination but be realistic as well. 4 lines.

Week Three
1. ***Write a story including the following words: football, clown, soap, forest, laptop, frog, and slime.

2. *If you could do something that you never have done before, what would it be? Why would you want to do it? 3 lines

3. Where are these two paths leading? What path will the man choose? 4 lines

4.* What is the difficult thing about being your age? Give examples. 3 lines.

5. ***Make up your own holiday. Name it, tell the day, describe what the holiday is for, and how people will celebrate it. 4 lines

Week Four
1. ***Give an object human qualities. Write about what life is like from its point of view. 4 lines

2. What is beyond this door? 3 lines

3. Respond to the picture prompt in 5 lines. Take the perspective of the lead duck or the surrounding ducks.

4. ***Write about your favorite show/movie. What's the title and what is it about? Why do you like it? 4 lines.

Week Five
1. ***School is required for kids. How would you change school if you were in charge? 3 lines.

2. ***Write a paragraph using all of the following words: flower, police officer, eraser, sponge, unicorn, spaghetti.

3. ***What do you want to be when you grow up? Why did you choose this? 3 lines.

4. ***Describe the perfect birthday party. Money is no object. Use your imagination! 3 lines!
*https://www.dailyteachingtools.com/journal-writing-prompts.html

**https://www.slideshare.net/Tpaisey/pictures-to-prompt-creative-writing

***Teacher-crea

APPENDIX C

LESSON PLAN ON RESPONDING TO PEER WRITING

Objective: Students will be able to write thoughtful and beneficial responses to peer

writing. Comments should be appropriate, polite, acknowledge the author, state whether

one agrees or disagree, give details, or ask questions (Lacina & Griffith, 2012).

Standard Alignment: RL13.3 Read and respond to grade-level texts to become self-

directed, critical readers, and thinkers.

Agenda	Details
Teacher will show students a sample writing prompt and student response.	Prompt: Describe an exciting day at school. Student response: The thing that would make School much more fun would be to serve sweet tea at lunch for kids and everyone can have anything in the world at lunch. During classes, we could have breaks and time to do what we want for at least 15 minutes.

Teacher will explain the approaches to responding.	• Ask class what appropriate and polite means. • Explain that acknowledge the author means that you refer specifically to something they wrote. For example: "It would be cool to have 15 minutes to do whatever we want." • Explain how to agree or disagree politely. Instead of saying "Sweet tea is gross", try "I don't like sweet tea, but it would be cool to have soda with lunch." or "I agree. I wish we had sweet tea at lunch" • Explain that give details means add some information to the person's post. For example: "It would also be cool if there was a taco bar and a Chick Fil-a at lunchtime." • Explain the asking questions is another way to show interest. For example: "What kind of things would you want to do during your 15-minute breaks?" One, some, or all of these can be used in a comment as long as it is clear that you are interacting with your peer's response.
Teacher will provide practice.	The teacher provides another student response, on SeeSaw this time, and asks all students to write comments following guidelines set forth in this lesson. Teacher

	informally evaluates comments to ensure students understand expectations.

Closure: This can be done as many times as needed until students have mastered commenting. This is also the expectation going forward for interactive journaling.

APPENDIX D

SELF-EFFICACY FOR WRITING SURVEY

Indicate how each statement is true for you. 1=not at all; 2=sometimes; and 3 = True all the time

<u>Ideation</u>

1. I can think of many ideas for my writing.

2. I can put my ideas into writing.

3. I can think of many words to describe my ideas.

4. I can think of a lot of original ideas.

5. I know exactly where to place my ideas in my writing.

APPENDIX E

WRITING PERFORMANCE PRE-TEST AND POST-TEST

Write a response to the following prompt. You have 20 minutes to write your best, most

detailed response.

What would you do if someone just gave you $1 million?

Grading Criteria	
Number of words	
Number of Adjectives	

Idea development

4	3	2	1
Topic is developed with three or more additional sentences	Topic is developed with two additional sentences	Topic is developed with one additional sentence	No ideas are developed

APPENDIX F

SOUTH CAROLINA STANDARDS

Writing Standard 3: Write narratives to develop real or imagined experiences or events using effective techniques, well-chosen details, and well-structured event sequences.

3.1 Gather ideas from texts, multimedia, and personal experience to write narratives that:

a. Develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences

Writing Standard 6: Write independently, legibly, and routinely for a variety of tasks, purposes, and audiences over short and extended time frames.

6.1 Write routinely and persevere in writing tasks over short and extended time frames, for a range of domain specific tasks, and for a variety of purposes and audiences.

APPENDIX G

WRITING ATTITUDE SURVEY

Indicate how you would feel about the following questions by using a scale of 1-4.

1=Very Unhappy   2=Somewhat Unhappy   3=Somewhat happy   4= Very

Happy

How would you feel about...

1. Writing a letter to the author of a book you read?

2. Writing about something you have heard or seen?

3. Writing a letter to a store asking about something you might buy there?
4. Telling in writing why something happened?
5. Writing to someone to change their opinion?
6. Keeping a diary?
7. Writing poetry for fun?
8. Writing a letter stating your opinion on a topic?
9. Being an author who writes books?
10. Having a job as a writer for a newspaper or magazine?
11. Becoming a better writer than you already are?
12. Writing a story instead of doing homework?
13. Writing a story instead of watching T.V.?
14. Writing about something you did in Science?
15. Writing about something you did in Social Studies?
16. Writing more in school?
17. Writing down the important things your teacher says about a new topic?
18. Writing a long story or report at school?
19. Writing answers to questions in Science or Social Studies?
20. Your teacher asking you to go back and change some of your writing?
21. Your classmates talking to you about making your writing better?
22. Writing an advertisement for something people can buy?
23. Keeping a journal for class?
24. Writing about things that have happened in your life?

25. Writing about something from another person's point of view?

26. Checking your writing to make sure the words you have written are spelled correctly?

27. Your classmates reading something you wrote?

28. How would you feel if you didn't write as much in school?

APPENDIX H

INTERVIEW PROTOCOL

Hello, and thank you for agreeing to be interviewed for my study. The purpose of this interview is to get more information about your writing process. The information you provide today will be recorded, transcribed, and used in my dissertation for the University of South Carolina. For our purposes today, please think about each question as it pertains to your recent writing experiences in class. You are free to pass on any question if at any time you feel uncomfortable. I will be using a recording device to document your answers, as well as writing down notes. Is this all right with you? This interview will take about 5 minutes. Do you have any questions before we start? O.K.! Let's begin!

Interview Questions

1. Explain how you come up with ideas for your writing.
2. Would you consider yourself a good writer? Explain.
3. Do you feel like you became a better writer after using SeeSaw (interactive journaling)?
4. Do you like to write? Why?
5. Give an example of a writing prompt you enjoyed in SeeSaw (interactive journaling)

Conclusion

Thank you for this interview. Your answers will greatly help me understand your writing process.

APPENDIX I

IRB APPROVAL

UNIVERSITY OF
SOUTH CAROLINA

**INSTITUTIONAL REVIEW BOARD FOR HUMAN RESEARCH
DECLARATION of NOT RESEARCH**

Nicholle Arman
300 Lakewind Dr.
Moncks Corner, SC 29461 USA

Re: **Pro00094598**

Dear Ms. Nicholle Arman:

This is to certify that research study entitled **The Impact of Interactive Journaling through SeeSaw on Students' Writing Self-Efficacy and Writing Performance** was reviewed on **1/7/2020** by the Office of Research Compliance, which is an administrative office that supports the University of South Carolina Institutional Review Board (USC IRB). The Office of Research Compliance, on behalf of the Institutional Review Board, has determined that the referenced research study is not subject to the Protection of Human Subject Regulations in accordance with the Code of Federal Regulations 45 CFR 46 et. seq.

No further oversight by the USC IRB is required. However, the investigator should inform the Office of Research Compliance prior to making any substantive changes in the research methods, as this may alter the status of the project and require another review.

If you have questions, contact Lisa M. Johnson at lisaj@mailbox.sc.edu or (803) 777-6670.

Sincerely,

Lisa M. Johnson
ORC Assistant Director and IRB Manager

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