

Rowan University

Rowan Digital Works

Theses and Dissertations

1-27-2023

INTEGRATING MULTILITERACIES IN A THIRD GRADE CLASSROOM TO ENHANCE STUDENT ENGAGEMENT AND MOTIVATION

Rebecca K. McDonough
Rowan University

Follow this and additional works at: <https://rdw.rowan.edu/etd>



Part of the [Elementary Education Commons](#), and the [Language and Literacy Education Commons](#)

Recommended Citation

McDonough, Rebecca K., "INTEGRATING MULTILITERACIES IN A THIRD GRADE CLASSROOM TO ENHANCE STUDENT ENGAGEMENT AND MOTIVATION" (2023). *Theses and Dissertations*. 3083.
<https://rdw.rowan.edu/etd/3083>

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.

**INTEGRATING MULTILITERACIES IN A THIRD GRADE CLASSROOM TO
ENHANCE STUDENT ENGAGEMENT AND MOTIVATION**

by
Rebecca K. McDonough

A Thesis

Submitted to the
Department of Language, Literacy, and Sociocultural Education
College of Education
In partial fulfillment of the requirement
For the degree of
Master of Arts in Reading Education
at
Rowan University
January 23, 2023

Thesis Chair: Marjorie Madden, Ph.D., Associate Professor, Department of Language,
Literacy, and Sociocultural Education

Committee Members:

Kate Kedley, Ph.D., Assistant Professor, Department of Language, Literacy, and
Sociocultural Education
Robert Eisberg, M.A., Lecturer, Department of Language, Literacy, and Sociocultural
Education
Susan Browne Ed.D., Associate Professor, Department of Language, Literacy, and
Sociocultural Education

© 2023 Rebecca K. McDonough

Dedications

I would like to dedicate this manuscript to my husband, Patrick McDonough Jr. I appreciate all of your patience and support throughout this process. Thank you for always being there to listen to or read my work. I would also like to dedicate this to my writing buddy, Baby McDonough, who will be joining our family this summer.

Acknowledgments

I would like to express my gratitude to my students featured in the study. Also, a special thank you to the administration of my district for allowing me to conduct the study at the study site. I would like to thank my advisors from Rowan University. I would especially like to thank my thesis supervisor, Dr. Marjorie Madden. Lastly, thank you to my parents, Tami and Robert, as well as my brother, David, for supporting me as I completed the next step of my education.

Abstract

Rebecca K. McDonough

INTEGRATING MULTILITERACIES IN A THIRD GRADE CLASSROOM TO
ENHANCE STUDENT ENGAGEMENT AND MOTIVATION

2022-2023

Marjorie Madden, Ph.D.

Master of Arts in Reading Education

The purpose of the study is to investigate the growth in student motivation and engagement through a multiliteracy lens. The specific aim is to explore what happens when a traditional writing unit is replaced with a multiliteracy writing unit that utilizes multimodal components. The students demonstrated changes in how they perceived themselves as writers and how they viewed writing in general. The implications for teaching writing with a multiliteracy approach is also discussed.

Table of Contents

Abstract	v
List of Figures.....	viii
List of Tables	ix
Chapter 1: Introduction	1
Purpose Statement.....	2
Statement of Research Problem and Question.....	7
Story of the Question.....	7
Organization of the Thesis.....	8
Chapter 2: Literature Review.....	10
Defining Multiliteracies and Multimodal Frameworks.....	11
Benefits of Multimodal Approaches	12
Multiliteracies Writing Studies.....	15
Multimodal Writing at the Elementary School Level	18
Potential Challenges of Multimodal Writing Instruction	19
Conclusion	20
Chapter 3: Research Design/Methodology.....	22
Procedure of Study.....	23
Data Sources	26
Data Analysis	27
Context of the Study.....	27
Community.....	27

Table of Contents (Continued)

School	28
Classroom	28
Students.....	29
Chapter 4: Data Analysis.....	30
Revisiting the Study	30
The Students’ Growth and Transformation as Writers	31
Students’ Perceptions of Themselves as Writers	41
The Value of Learning From Each Other.....	44
Summary of Data Analysis.....	48
Chapter 5: Summary, Conclusions, Limitations, and Implications	49
Summary.....	49
Conclusions.....	50
Limitations	51
Implications	52
References	54
Appendix A: Motivation to Write Profile – Value of Writing Survey	56
Appendix B: Motivation to Write Profile – Self-Concept as a Writer.....	59
Appendix C: Photos of Student Artifacts.....	62
Appendix D: Photos of Students Collaborating.....	66

List of Figures

Figure	Page
Figure 1. Bridget's Google Sites.....	34
Figure 2. Topic Choice.....	37
Figure 3. Project Choice.....	37
Figure 4. Google Drawings about Scales.....	38
Figure 5. Google Sites about Fur.....	39
Figure 6. Book Creator about Skin.....	40

List of Tables

Table	Page
Table 1. Pre and Post Surveys	42

Chapter 1

Introduction

I began the 2020 school year with the mindset and goal to make learning exciting again for my third grade students. My class attended school in person twice a week with half of the class and met online with the entire class weekly. When they were not learning in the comfort of their own homes, they were sitting at a desk, with a mask, 6 feet apart from one another. Besides the fact that I had students physically in my classroom again, a new reading series was being implemented simultaneously. All aspects of literacy such as reading comprehension, spelling, grammar, and writing would be streamlined into one program that would be used from grades kindergarten through fifth with the ultimate goal of preparing students to meet the New Jersey Student Learning Standards. I was looking forward to utilizing a new program despite the chaos of teaching through a pandemic.

“Today in writing we are going to analyze a print source to find evidence for our informative/explanatory essays,” I announced to the class. “Does anyone know what it means to find evidence?” Silence. “Does anyone recall what is in an informative/explanatory essay?” Silence. I quickly came to the realization that these students were not ready for this type of writing. They were accustomed to a Writer’s Workshop approach, writing about topics that sparked interest, or sitting behind a computer screen, many with their camera off unable to stay focused. Writing a complete sentence was a struggle, writing a four paragraph essay with contextual evidence seemed like an impossible challenge. I found myself on repeat. “Did you capitalize the first letter in the sentence? Don’t forget about punctuation. Does that sentence make sense?” The students would reply with their blank stares or comments such as, “Is it time for recess

yet?” As a teacher, I felt the disconnect between the students and their writing. In the mornings, the students were encouraged to write in their journal. They could select from a variety of topics from their monthly calendar. The students enjoyed this type of writing and enjoyed sharing it with their peers during Morning Meeting. “Do we have time to share one more?” or “I can’t wait to see the writing choices on next month’s calendar!” The difference of the reactions between the two writing activities was alarming. The difference in the students’ reactions made me wonder how I could make formal essay writing as exciting as informal journal writing.

Now I am currently in the 2022-2023 school year. The students are finally allowed to sit in groups without a mask. The pandemic seems to have negatively impacted many students, including their writing abilities. As a teacher, and now a teacher researcher, I see the opportunity to experiment with this arguably intense writing program and make it accessible and enjoyable for my students. Based on what I have observed from the past few years of teaching in a pandemic, I have chosen to focus on making writing engaging. According to current research that will be discussed in Chapter Two, writing taught with a multiliteracy approach supports engagement. I would like to study what happens when writing is taught with a multiliteracy approach to third graders.

Purpose Statement

The purpose of this research is to explore student engagement and motivation when integrating multiliteracies in a third grade classroom. In this study, the students will complete the same writing unit they typically would be assigned but with a markedly different approach. In years past, students seemed unmotivated and did not complete the writing assignment without significant help from the teacher. The curriculum asked the

students to write a four paragraph informative/explanatory that explains the different ways fur helps some animals survive. As stated by the writing program, an informative/explanatory essay requires an introduction, facts and details from both a print and video source, as well as a conclusion. As a teacher, I felt myself feeling overwhelmed and constantly asking myself, “How am I supposed to teach students how to write a well-developed essay with textual and video evidence when a majority of the class cannot write a complete sentence with capital letters and punctuation?”

For the first year, I taught the writing unit as it was written. The new curriculum was implemented to improve students’ scores on the standardized test and to streamline the literacy curriculum in the elementary grades. The students did have a clearer understanding of informative/explanatory writing and how to include evidence from the text when responding to a question; however, I found that the students were not motivated nor engaged in the writing unit. My students struggled with the simple mechanics of a sentence but were being asked to write a four paragraph essay. I quickly found that the demands of the new writing curriculum were far too difficult for my students’ abilities. The writing being asked of students limited their choice and authenticity. The students seemed alive during their morning journal time but lost their light when it was time for the scripted writing curriculum.

The New London Group’s seminal work titled “A Pedagogy of Multiliteracies: Designing Social Futures” provides a theoretical overview of a new approach to writing instruction called multiliteracies. They describe this change in literacy education throughout the years and its connection to the change in society. They argue, “the multiplicity of communications channels and increasing cultural and linguistic diversity

in the world today call for a much broader view of literacy than portrayed by traditional language-based approaches” (New London Group, 1996, p. 60). The framework and argument set forth by the group laid the foundation for other researchers and educators to conduct studies with the focus on multiliteracies. In my study, the multiliteracies framework will lay the foundation for students who will be asked to independently complete a writing project with the opportunity to work collaboratively with their peers while using technology. Multimodal learning will be incorporated into the writing unit as the students will explore various modalities, or ways to make meaning, when publishing their final drafts. In order to develop my understanding of existing research on this theory, I found several studies that incorporate the multiliteracy theory.

Within the multiliteracy theory, there are different modes or designs. Bezemer and Kress (2008) define a mode as “a socially and culturally shaped resource for making meaning” (p. 171). For instance, pictures, audio, and graphics are all modes that the students can use to make meaning. The design of textbooks and learning materials throughout the years has changed to reflect these various modes.

Krishnan (2021) examined the change in engagement with multiliteracies and the impact multiliteracies have on the students’ ability to self-advocate for themselves. The students completed a project that tapped into several modes. The students with complex support needs utilized an online program to create an IEP presentation for their family. The multimodal project incorporated sounds and pictures that permitted the students to create a project with support from their teachers. Krishnan (2021) argues, “The pedagogy of multiliteracies is uniquely placed to provide the vision to create literacy instruction that matters for all students” (p. 121). While my research does not include participants

with complex support needs making a presentation for an IEP meeting, I have a diverse group of students ranging from English language learners to Basic Skills to gifted students. This year, roughly a third of my class is enrolled in the Basic Skills Instructional Program. Following the pandemic, there seems to be more students that require reading and writing support. Regardless of the student, it is crucial to motivate all students. In my study, I plan on using the same online platform mentioned in this qualitative study in a writing unit.

I also examined articles to learn what other teachers and researchers have already done in an attempt to improve the quality of writing. Bal (2018) studies the multimodal informative writing process of middle school students. The data showed that the writing process did not attract the students but the creation of the final project, the comic books, did. However, the writing processes related to multimodal texts had a positive effect on students' interests and responsibilities. Lastly, the peer reviews increased awareness for students in the writing process. Even though I am not working with middle school students or creating comic books, I will value the importance of utilizing multimodal texts and incorporating peer reviews throughout the writing process. In my study, I will have a similar challenge as the author in keeping the students engaged with an informative writing project.

Cordero, Nussbaum, Ibaseta, Otaíza, and Chiuminatto (2018) conducted a study that included third grade students, the same group of students included in my study. Their research question looked at how multimodality and technology work together to support primary school students reading and writing practices. The findings showed that technology presents opportunities for literacy learning but can present challenges if the

students and teachers are not technologically savvy. While my research will focus on a different project and technology, it is important that the students are familiar with the form of technology they will be using. Fortunately, my students have been using their Chromebooks since the beginning of the year and a majority of my students have grown up with technology at their fingertips. When it is time for the publishing process where the students are able to select how they will publish their work, I will take some time with each group to demonstrate a tutorial of each method. Since the students most likely never used the websites or programs being asked of them, I will show them the basics of each platform. Then the students will work in groups based on the project of their choice. Together, the students will share ideas such as adding a text box, changing the font size, or copying a picture while completing their own project.

My particular research is important because I have not found a study that focuses on a similar group of students like my own with a writing project that focuses on the informative and explanatory genres. My class offers a diverse range of students with varying abilities. In an attempt to engage students throughout the entirety of the writing process, and not just the publishing stage, I will offer them a choice on the topic. The writing curriculum is designed for all of the students to write about the same topic; however, they will have the choice between four options. The students will also have the choice between three different ways to publish their final writing projects. During the whole writing process, not just the editing and revising stage, students will have opportunities to collaborate with their peers. After reading previous studies and research, I believe there is power in students working, learning, and collaborating with each other (Wiseman, Ma'kinen, Kupiainen, 2015; Mills & Exley, 2014).

Statement of Research Problem and Question

The intent of the study is to implement a multiliteracy approach with a third grade writing unit. The question guiding the study is as follows: How does a multiliteracy and multimodal approach to writing support third grade students' motivation, engagement, and writing proficiency? How does the multiliteracy approach affect a student's overall achievement and success? How do the students view themselves as writers in the beginning of the study? How will their outlook as writers change by the conclusion of the study?

Story of the Question

Ever since the adoption of the new reading program, I have been struggling with how to effectively teach a curriculum that the students were simply not ready for. I was aware of this problem but at a loss for a solution. After completing the course "Clinical Experiences in Reading" at the Rowan Reading Clinic, I was exposed to several theories prevalent in education. I was assigned to research and present on a Social Learning Lens, the Multiliteracies Theory. I learned about the complexity and challenges of incorporating technology in education in a world full of diversity and inequalities. The New London Group (1996) argue that in order for the students to be prepared for today's society, they must be adept and aware of technology including but not limited to collaborating and exploring projects with peers. Following my presentation on the theory, one of my professors posed the question, "What does teaching writing with multiliteracies look like?" It was at that moment I realized that perhaps this was the solution to my question I have been struggling with.

The framework of the multiliteracies theory makes sense in the ideal classroom setting. The current state of society is relying more and more on technology every day and the world is also growing with diversity. As educators, it makes sense to adapt our pedagogy to meet the needs of today's learners. When you visualize a classroom from several decades ago, it does not mirror the current classrooms. Students are no longer sitting in rows looking at textbooks comprised predominantly of text and containing few, if any, pictures. Now students are sitting in groups and the textbooks are consumable or digital. It makes sense to incorporate more technology and collaboration into the classroom but there are challenges that present themselves. For example, some teachers are not keen on keeping up with technology trends or districts cannot afford the same technology as neighboring schools. The multiliteracy theory was designed to make education more equitable but it could very well have the opposite effect.

After fully immersing myself in the multiliteracies theory and struggling with how to teach writing, I am curious to see if I will be able to incorporate a multiliteracies approach that focuses on various modalities while teaching to the standards. I feel the pressure from stakeholders and the curriculum to teach to the standards in order to prepare the students for the future, but is the current writing program proving successful and is it being implemented effectively? What happens when a teacher researcher takes a risk and lets the students take charge of their learning?

Organization of the Thesis

Following Chapter One, the introduction to the thesis, will be a literature review. This second chapter will consist of studies on various topics such as multiliteracies, multimodal approaches, and writing at the elementary level. Chapter Three will be an

overview of the research, and the context of the qualitative study including the school, its participants, and details regarding the study. The fourth chapter will be a discussion of data findings and analysis. Lastly, Chapter Five will be a summary of the findings, limitations of the study, and implications for teachers and educators.

Chapter 2

Literature Review

If it were possible to define generally the mission of education, one could say that its fundamental purpose is to ensure that all students benefit from learning in ways that allow them to participate fully in public, community, and economic life (New London Group, 1996, p. 60).

The state of the world and education has evolved over time and will continue to do so. Literacy pedagogy needs to change as a result as well (New London Group, 1996; Bezemer & Kress, 2008). A group of ten academics known as the New London Group (1996), met to discuss solutions to meet the needs of students to ensure their success in the real world after exiting school. The group created the idea of multiliteracies where they believe every student, regardless of their cultural background, native language, or gender could be successful. The New London Group (1996) argued for changes in school curriculum and described their framework as a “design for social futures” (p. 73). They presented a theoretical overview of the relationship between the evolving social environment in schools and a new technique of teaching literacy pedagogy. Their multiliteracies framework is the foundation for this teacher research study. In the study, it is argued that writing instruction taught with a multiliteracies and multimodal approach will improve student engagement in writing. Thus, students will be motivated to write and in return, produce better quality writing. The research in this chapter provides a comprehensive overview of the multiliteracies and multimodal frameworks, in particular those related to writing and writing instruction. The chapter sections include the

following: a) defining multiliteracies and multimodal frameworks; b) benefits of multimodal approaches; c) multiliteracies writing studies across board contexts; and d) multimodal writing studies at the elementary school level.

Defining Multiliteracies and Multimodal Frameworks

The multiliteracies framework reimagines literacy pedagogy (New London Group, 1996) and is the focus of this study. The term multiliteracies refers to the “increasing multiplicity and integration of significant modes of meaning-making” and the “realities of increasing local diversity and global connectedness” (New London Group, 1996, p. 64). While society is becoming increasingly diverse, technology is also changing rapidly. The New London Group (1996) believes “there cannot be one set of standards or skills that constitute the ends of literacy learning, however taught” (p. 64). As the world shifts and evolves, The New London Group (1996) argues that literacy pedagogy should as well. The multiliteracy theory promotes inclusive teaching while including multimedia technologies. Within the framework are modes: Linguistic Meaning, Visual Meaning, Audio Meaning, Gestural Learning, Spatial Meaning, and the Multimodal patterns of meaning.

Bezemer and Kress (2008) expand on the idea of the different modes with the social semiotic theory. They bring attention to current learning materials such as textbooks that are incorporating different modes. Text is not the central mode of representation in learning materials. Bezemer and Kress (2008) present the question, “What exactly is the relation between the semiotic designs of multimodal learning resources and their potentials for learning?” (p. 168). They describe potentials for learning as the different ways multimodal learning resources are used to shape learning

(Bezemer & Kress, 2008). When comparing a textbook from 1935 to one from 2005, they found that the current textbook had less text and more charts, diagrams, and photographs. Students use different modes to make meaning. While one student may prefer a visual element such as a diagram to understand the material, another student may prefer an audio component instead. Different individuals need different modes to make meaning.

Benefits of Multimodal Approaches

As mentioned earlier with the example of the 1935 textbook, the world has drastically changed since then. Students of various ages and grade levels are no longer sitting in rows in a room with one teacher. At the turn of the 20th century, a factory model with desks next to each other organized in rows on both sides of a narrow passageway was popular and mimicked the set up of industrial America (DeGregori, 2011). Classrooms today look vastly different as society has evolved as well as education. Classroom models today reflect a more student-centered pedagogy (DeGregori, 2011) that encourages cooperative learning that also immerses students in technology. The New London Group (1996) argues that as society shifts and evolves, literacy pedagogy needs to as well. This multimodal approach may be a new way of thinking and teaching for some, especially if an individual is hesitant to change (Mills & Exley, 2014). In one study, a woman explored a multimodal journaling experience with her son. After this experience, her opinion regarding multimodal writing changed as she found herself preferring this method. She found it easier for her son to make meaning (Krause, 2015).

Multimodal writing projects have often improved the experiences of students. Krishnan (2021) argues that “the pedagogy of multiliteracies is uniquely placed to

provide the vision to create literacy instruction that matters for all students” (p. 121). His study suggests that writing with a multiliteracy framework can be effective for a wide range of students. Krishnan (2021) studied multimodal learning experiences for students with Individualized Education Programs (IEPs). The students were asked to create a digital book using a website called Book Creator. Using the digital book software, the students were able to share their learning with families, using various modes such as text, pictures, and sound.

In addition to benefiting students, multimodal writing has also improved the experiences of teachers. One study in particular focused on the relationship between time, space, and text and what happens when students and teachers take up writing in a digital context. (Mills & Exley, 2014). Time is described as the teachers’ initial perception of multimodal projects taking too much time. Before the study, the teachers believed writing projects with multimodal elements would take a longer time to complete. By the conclusion of the study, the teachers changed their minds. Space refers to the idea that teachers had to relinquish control over their classroom as the students were involved in different projects whether they were recording a podcast in one corner or filming an interview in another. When it came time to evaluate the projects, the teachers questioned whether or not to use rubrics. The teachers found that the projects (a kind of digital text) did not align to the prescribed state curriculum and they did not know how to grade the students’ projects; this became a main issue within the study. Mills and Exley (2014) found that even though teachers were hesitant to adopt a new way of teaching writing, the teachers ultimately found the new experience more beneficial to their students.

Multimodal writing has also led to an increase in student motivation. The idea of motivation playing a key role in a student's success in writing is not new but it is an important factor. Troia, Harbaug, Shanklan, Wolbers, and Lawrence (2013) state that "motivation plays a prominent role in writing development and performance is acknowledged in most contemporary models of writing" (p. 18). Findings in their study showed that the students' motivational beliefs about writing, especially their self-efficacy for writing skills, positively influenced the quality of their stories. Troia, Harbaug, Shanklan, Wolbers, and Lawrence (2013) explain that since the activity of writing requires great effort, motivation may be difficult to attain at times. Regardless of how students motivate themselves to write, motivation is necessary in terms of success (Troia, Harbaug, Shanklan, Wolbers, and Lawrence, 2013). As previously discussed in studies such as Krishnan's (2021), multimodal writing projects have been found to be motivating for students, thus proving to be more successful or meeting the requirements of the proposed writing assignment. If students are engaged and excited about the writing task, the quality of their writing will often improve.

Another example of multimodal writing that led to student engagement took place in a middle school classroom. The study examined the students and their experience with informational and narrative writing through comic books. The study showed that the writing process did not engage the students but the comic book portion of the project did (Bal, 2018). The writing process related to multimodal texts had a positive impact on the students' interest and responsibilities; however, some students were disengaged with the writing process. Bal (2018) found that the students were far more engaged with the culminating project, creating a comic book, rather than writing the draft. Another study

(Yamaç, Öztürk, & Mutlu, 2020) focused on a class blog that motivated students throughout the entirety of the study. The positive feedback the students received from their peers increased their motivation. The students also enjoyed the opportunity for social interaction in an online context.

Multiliteracies Writing Studies

Two studies (Burke, Butland, Roberts & Snow, 2013; Edwards-Groves, 2011) have examined teaching reading and writing through a multiliteracy lens and analyzed its effect on students. These two studies demonstrate the power of writing through a multiliteracies lens and its impact it can have not only on students, but teachers as well. One study examined three teachers who each took on a different multiliteracy project. Butland taught a fairytale unit and she realized that she was able to transform her practice when she realized all of the identities that children bring to school and how it impacts literacy. Through a multimodal approach by using digital media, she was able to engage her students by bridging the technology they use at home to the practices used in the classroom. Butland realized how critical it is to incorporate the identities of the students outside of the school to the classroom (Burke, Butland, Roberts & Snow, p. 46, 2013). Roberts and her students fully embraced a multimodal project but she found herself unsure of how to assess the students. She realized through her multiliteracy project that when it comes to evaluating the students' work, there should be several ways to assess the projects as students may choose to demonstrate their understandings in a multitude of ways (Burke, Butland, Roberts & Snow, p. 48, 2013). Snow realized the process of the digital literature circle project was more important than the product itself when she states, "This shift towards a process versus a product approach is significant in

illustrating how as educators we must look beyond learning simply as a means to an end and focus more attentively on the importance of the journey toward understanding and how it can mould student identities and attitudes toward literacy learning” (Burke, Butland, Roberts & Snow, p. 51, 2013).

Burke et al. (2013) demonstrated that a multiliteracy project can be empowering for students and educators, despite its challenges. For instance, Butland recognized the value of making the connection between the students’ identities between home and school. Snow and Roberts’ (2013) experiences showed the importance of evaluating the students’ work throughout the process and not just waiting for the final project. Through ongoing discussions and the completion of a project, the teacher should collect data that will be ultimately used to grade the multiliteracy project. Educators must look beyond the idea of rubrics and assessments and focus more on the journey. When teaching with a multiliteracies or multimodal approach, this idea of assessing throughout rather than just merely the final product may be new for teachers (Burke et al. 2013).

More importantly, writing that incorporates multiliteracies extends beyond the classroom. The New London Group (1996) promotes the idea of teaching the student to be prepared for society. The New London Group’s (1996) framework and Burke, Butland, Roberts, and Snow’s (2013) study demonstrate the larger idea of the multiliteracy theory: preparing students for their futures. This was made evident when Burke, Butland, Roberts, and Snow (2013) shared in their findings the importance of making the connection between school and home. By incorporating multiliteracies in the classroom, students learn to see technology as part of their lives and future. Through the process of incorporating multiliteracy practices, teachers are making learning more

applicable and enjoyable to students. Burke et. al. (2013) share their opinion of an expanded literacy pedagogy definition:

The definition of literacy will also need to be expanded to include the literacy practices that students participate in their life worlds. In order to accomplish this, connections have to be made between students' out-of-school and in-school literacy practices. The literacy practices that our students take part in must be collaborative in order to prepare them for their future (p. 43).

The definition mirrors the New London Group's call for action in their seminal work. Writing with the multiliteracies framework in mind will prepare students for their futures (New London Group, 1996). Students in today's society are expected to participate in the diverse world in addition to receiving an education.

Another study explored teaching writing in a new multimodal space (Edwards-Groves, 2011). The study examined the use of multimodal writing and the effect of changing writing pedagogy. Students were encouraged to use multimedia and technology throughout the process of writing and collaborate within the classroom. The findings showed that students' design skills were recognized and validated when asked to collaborate with their peers and represent their knowledge with multimodal texts. Edwards-Groves (2011) states, "The view here is that multimodality does not replace important foundational writing skills but that the elements of the writing process are extended to account for the shift in textual practices that technology demands" (p. 62). The students' design and writing skills were recognized and validated when asked to collaborate and represent their knowledge with multimodal texts. The act of collaboration

showed the possibilities of when classroom practices are multimodal. Edwards-Groves (2011) encourages educators to reconsider how writing is taught in today's classrooms.

Multimodal Writing at the Elementary School Level

Multimodal writing projects and experiences have motivated and engaged students in writing at multiple levels, including the elementary grades (Cordero, Nussbaum, Ibaseta, Otaíza & Chiuminatto (2018). Wiseman, Mäkinen and Kupiaine's (2015) study suggested the importance of collaboration amongst peers. Elementary students worked together throughout a photography and visual literacy through writing project. The findings of the study showed how utilizing different forms of communication, such as photography, alongside traditional school literacies, writer's workshop, expanded the options that children have of processing and expressing their understanding (Wiseman, Mäkinen & Kupiaine, 2015). The use of the photographs helped the students create ideas and participate in class discussions. The elementary students were able to make meaning through the different modalities.

Wiseman, Pendleton, Christiansen, and Nesheim's (2017) conducted a case study of a third grade student as she participated in a multimodal literacy project. She examined photographs that helped her articulate her thoughts and writing. During the initial interview, the researchers found the student's answers were halted, she looked downward while answering, and her responses were brief. However, during the final interview, "her motivation, engagement, and learning were best reflected through open-ended conversations and when she had access to her visual images. In other words, the multimodal curriculum was providing her with opportunities to express and communicate in ways that were productive for her learning" (Wiseman, Pendleton, Christiansen, and

Nesheim, p. 64, 2017). The study showed the importance of meaning making and how struggling students can be successful through multimodal experiences (Wiseman, Pendleton, Christiansen & Nesheim, 2017). Yamac and Ulusoy's (2016) study that examined the use of digital storytelling showed that the project enhanced students' ideas, organization, word choice, sentence fluency, conventions and created a learning community. Ulusoy's study also found that the use of computers and the internet increased the students' ambition and encouraged them to participate in the writing process.

Potential Challenges of Multimodal Writing Instruction

Potential hindrances of multimodal writing instruction were briefly mentioned in the overview of the literature found above (Mills & Exley, 2014; Cordero, Nussbaum, Ibaseta, Otaiza & Chiuminatto, 2018). One concern of teachers was the assessment of the writing. Teachers found that rubrics were not sufficient in evaluating writing with multimodal components (Mills & Exley, 2014). Researchers found there was more to assess throughout the entirety of the writing process rather than the final product. The pressure of standardized testing and teaching to the curriculum is another hindrance to multimodal writing. Teachers felt the pressure to teach to the curriculum rather than to explore and integrate new technologies (Cordero, Nussbaum, Ibaseta, Otaiza & Chiuminatto, 2018).

Some students were worried too much about the technology component or the appearance of their writing project rather than the writing process itself. Some students were not engaged in the writing process (Bal, 2018) and others put too much emphasis on the appearance of the project and the comments from peers (Lindstrom & Niederhauser,

2016). When incorporating multimodal writing projects and multiliteracies, these are several factors that the teacher must consider when planning and implementing the lessons (Bal, 2018; Lindstrom & Niederhauser, 2016).

Conclusion

According to existing research, multiliteracies and multimodal learning offer exciting possibilities for students to become successful writers and communicators in today's society or world. (New London Group, 1996; Krishnan, 2021; Mills & Exley, 2014; Yamaç, Öztürk, & Mutlu, 2020; Burke, Butland, Roberts & Snow, 2013; Edwards-Groves, 2011; Wiseman, Pendleton, Christiansen & Nesheim, 2017). Multimodal writing projects have proven to motivate students (Bal, 2018; Cordero, Nussbaum, Ibaseta, Otaíza & Chiuminatto, 2018; Troia, Harbaug, Shanklan, Wolbers & Lawrence, 2013); further, motivation is often linked to better writing quality. Several studies mentioned in the literature review are examples of successful multimodal writing projects in an elementary classroom (Bal, 2018, Yamaç, Öztürk & Mutlu, 2020; Lindstrom & Niederhauser, 2016). The participating students in the study were able to effectively follow the requirements of the projects being asked of them from creating a comic book to telling a story through photographs (Bal, 2018; Wiseman, Pendleton, Christiansen, and Nesheim).

There are several gaps in the current research regarding multimodal and multiliteracy writing. For instance, there is limited research with teaching explanatory writing in a third grade classroom. Also, the idea of collaborative writing is merely explored at the end of the writing process rather than throughout. This teacher research study will focus on exploring these areas. The intent of the study is to explore those

missing factors with the hope to improve the writing experience for third grade students. For instance, informative/explanatory writing will be the genre in focus. This addresses the lack of focus on nonfiction writing in the existing research. The multiliteracies theory encourages collaboration. Collaborative writing will be practiced throughout the entirety of the writing process, not just in the editing and revising stages. Also, students will have multiple opportunities for student choice. They will have the opportunity to take control of their learning while working in small focus groups as they select their writing topic and final project. The next chapter of the thesis will describe the research design and context of the study in complete detail.

Chapter 3

Research Design/Methodology

Klehr (2012) summarizes the principles and practices of qualitative inquiry at the core of teacher research when stating, “Those who spend time in classrooms understand that teaching children and young adults is an intensely complex puzzle involving many intersecting and sometimes competing components” (p. 122). By engaging in teacher research, educators have the opportunity to explore a question in their very own classrooms. The researcher is able to analyze the question in focus through qualitative research. Qualitative research includes data such as field observations, surveys, and analyses of student work. The researcher is then able to share the findings of the qualitative study and improve the educational experiences for others.

A qualitative study is best for my study for several reasons. For instance, the study can occur in my third grade classroom. This allows for the study to be naturalistic as my students will be observed in their typical classroom setting. By observing the students in their natural setting, the data that will be collected will give the teacher researcher a true perspective of the students’ thoughts, feelings, and behaviors in response to the research question.

Hubbard and Power (2012) state, “At its best, teacher research is a natural extension of good teaching” (p. 3). Teacher research includes tasks that are already embedded in a teacher’s typical routine such as observing students, analyzing their needs, and adjusting the curriculum to meet those needs. Teacher research is best suited for my research study because I see a need to alter the curriculum in order to benefit my

students. Teacher research is the optimal opportunity to explore a problem in my third grade classroom.

This feeling to investigate an issue in my classroom was further validated when Cochran-Smith and Lytle (2009) state the following:

[T]here is strong evidence that many practitioners and other stakeholders in a wide array of contexts are engaged in the difficult struggle to democratize the knowledge and power arrangements of schooling in order to improve students' opportunities to learn and to enhance their life choices (p. 118).

They continue to refer to teacher research as “inquiry as a stance for moving forward with the agenda to transform teaching, learning, leading, and schooling” (p. 119). Moving forward with my teacher research study, I will value the idea of “inquiry as a stance”. As a teacher, I see a need for change in the writing curriculum to make it more effective and engaging for all students. Teacher research is the optimal opportunity to explore the writing curriculum through a qualitative study.

Procedure of Study

The teacher research study analyzes what happens when a multiliteracy approach is used to teach writing. The students are tasked with addressing an informational/explanatory writing prompt that the curriculum puts forth but the lessons are modified to meet the needs of today's learners using multiliteracy theory. For example, the adjustments include the following: a) twenty-two students are engaged in several opportunities to collaborate with their peers throughout the entirety of the writing process and not just the editing and revising stage; b) students are invited to choose what topic they would like to write about instead of being told what to write; and c) students

will select a multimodal project for the publishing stage, not simply writing a four paragraph essay using paper and pencil.

The first week of the study began with Codling and Gambrell's (1997) two surveys: "What do you *think* about writing?" and "How do you *feel* about your writing?". The surveys assess the students' value of writing as well as their self-concept as a writer. The students completed the surveys independently but were invited to share their thoughts and feelings about writing in a class discussion. I jotted down notes in my teacher journal. Before officially beginning the writing unit, I wanted to see how the students perceived themselves as writers and how they feel about writing in general.

During the second week of the study, I began to teach the writing unit as the curriculum is designed to be implemented but with several changes. For instance, the students had a choice about the topic they would be writing about. The curriculum is written for all students to write about the same animal covering, fur, and how it helps an animal survive. In an attempt to engage and motivate the students to be invested in the writing prompt, I added three additional animal coverings: scales, feathers, and skin. From this point, the students sat in focus groups based on their selection. The students had opportunities to discuss their ideas with their group when gathering evidence and planning their essays. In small groups, the students collected evidence on their animal covering using a print and video source. An entire writing period was spent finding evidence from the curriculum's provided reading passage and another was spent writing down evidence from a video that touched on all four animal coverings. Throughout the writing periods, I had my teacher journal open and ready to collect notes on my observations and the students' thoughts, feelings, and quotes.

The third week of the study focused on planning and writing the introduction and two body paragraphs. The original curriculum asked for the students to write a formal five paragraph essay. During the planning and writing stages for this study, the students were asked to develop an informal plan before completing a multimodal project. I first modeled how to use the evidence I collected from the print and video sources to plan out the introduction. Then, I modeled how to take the planning page and write a paragraph. The students sat in their focus groups for this part of the writing unit as well. The students were given quiet times to write independently as I walked around assisting students as well as opportunities to collaborate with each other and share their writing. At the end of the writing periods, students were invited to share their writing with the entire class for constructive feedback.

The following week was spent continuing writing the body paragraphs and the conclusion. During this time, I pulled students in small groups to assist those that were struggling to use their collected evidence to write their paragraphs. At the end of the week, the students spent time editing and revising their own writing before sharing their feedback on their peers' writing. The students participated in a group editing and revising activity. The students rotated to various rough drafts and shared their feedback. The students had three minutes to spend at each rough draft. When the timer went off, the students rotated to the next rough draft. The goal was to make at least three revisions on each draft. This activity was a collaborative effort.

During the fifth week of the study, the students selected how they would publish their writing project. The students had the choice of either creating and designing a website using Google Sites, digital book using BookCreator.com, or digital poster using

Google Drawings. Even though the students were publishing their own projects, they were allowed to share their ideas with their focus groups as they experimented with the new websites and tools on their Chromebooks. The students have used Google Slides and Google Docs before but were not accustomed to Google Sites, BookCreator.com, or Google Drawings. I gave a brief tutorial on the basics of each but I allowed the students to explore and share the individual platforms. The intention was for the students to take control of their writing and decide how they wanted to publish their final drafts.

Finally, in week six of the study, the students completed the same two surveys as they did in week one. The purpose of this was to compare the students' perceptions of their own writing and their thoughts and feelings regarding the subject to the first week of the study. An open discussion took place where the students were encouraged to share their honest feelings and opinions regarding writing and the project they just completed.

Data Sources

Several data collection methods and sources of data were used in this study. I first collected data about the students' motivation to write using Codling and Gambrell's (1997) Motivation to Write Profile. At the conclusion of the study, I used the same surveys in order to make comparisons of the students' thoughts and perceptions about writing before and after the study. Throughout the entirety of the study, I kept a teacher research journal. I kept notes on the weekly activities as well as my observations, thoughts, and feelings, including the students' as well. I monitored student progress and understandings by examining drafts and final copies of the writing project. I also recorded oral responses with audio and video recordings of classroom discussions. The

final writing projects were used as artifacts as another way to determine the students' engagement and understanding of the writing prompt.

Data Analysis

The data collected throughout the duration of the study was used to deduce conclusions regarding the effect a multiliteracy approach had on the students' experience with informational writing. I used the information from the survey to compare and contrast the students' feelings and perceptions of themselves as writers before and after the study. I reflected on the teacher research journal to gather themes and patterns regarding the multiliteracy approach to writing. I listened to the audio and video recordings to gather information that I may have originally missed when I was in the moment teaching the writing unit. I added the patterns and trends I saw to the ones I collected in my journal.

Context of the Study

Community

The study takes place in a New Jersey suburb outside of Philadelphia, Pennsylvania in Burlington County. According to the 2020 census, about 17,000 people live in the town. The demographics of the town are the following: about 88% of the population is white/Caucasian, 4.5% are Black/African America, 1.8% are Asian, and 5.3% are Hispanic or Latino. The average age is 42.7 with 62% of the population between the ages of 18-64, 20% under 18, and 18% 65 years and older. The residents of the town are 50% female and male respectively.

There are about 5,800 households and about three people living per household. Nearly 9% of families speak a language other than English at home. The average

household income is \$116,052 and the average cost of a home is \$278,900. The population by household type is the following: about 79% are married couples, 1% are male homeowners, 11% are female homeowners, and 9% are non-family households. About 3% of the population lives in poverty.

School

The study takes place at one of two elementary schools in the suburban school district. The school contains the intermediate elementary grades, third through fifth grade. According to the National Center for Education Statistics, there are 605 students in the school. The breakdown by race/ethnicity is as follows: 450 students are white/Caucasian, 50 students are Black/African American, 49 are Hispanic, 24 are Asian, 30 students are two or more races, 1 student is Native Hawaiian/Pacific Islander, and 1 is American Indian/Alaska Native. Seventy students are eligible for free lunch and 13 are eligible for reduced-price lunch.

According to the NJSLA 2019 English Language Arts scores for third grade in the district, the average score for all students was 747; white/Caucasian, 750; Black/African American, 727; and Hispanic/Latino, 735. Students with disabilities scored an average of 746; English Language Learners, 724; Economically Disadvantaged, 740; and Non-Economically Disadvantaged, 748. The scores on the tests range from 650 to 850. Students, regardless of their ethnicity, could use extra writing support in order to increase their state test scores.

Classroom

The study takes place in a third grade general education classroom. There are 22 students participating in the study, 12 boys and 10 girls. The following are the ethnicities

represented in the classroom: 15 of the students are white/Caucasian, 3 are Black/African American, 1 is Hispanic or Latino, and 3 have multiple ethnicities.

Students

About a third of the class receives additional reading support through a Basic Skills program. These eight students receive pull-out instruction from a Reading Specialist three times a week for twenty-five minutes and attend after school tutoring once a week for an hour. The students currently in the BSIP program that are participating in the study are Bridget, Dana, Eric, George, and Rose. All of these students have been enrolled in the BSIP program prior to third grade. Two other students, Ellie and Ryan, have IEPs for Speech and Robert has a 504.

The first several weeks of school were spent creating a strong classroom community. The students' work is shared within the classroom walls and outside on the bulletin board. The students' desks are organized in groups with plenty of space throughout the room to work in small groups or with partners. The students prefer to work on either of the two area rugs found on opposite ends of the classroom, the blue soft chair, the pink bungee chair, or the wobble stools at the teacher's guided reading table. The students have developed a sense of community since the beginning of the year and enjoy working collaboratively with each other.

Chapter Four of this thesis discusses the data findings and the analysis of the data. Patterns and themes found in the student surveys, audio and video recordings, student work, and my teacher research journal will be shared. Chapter Five will be a summary of the study's findings as well as limitations and implications for teachers and educators.

Chapter 4

Data Analysis

Chapter Four explores the findings of the teacher research study and question: How does a multiliteracy and multimodal approach to writing support third grade students' motivation, engagement, and writing proficiency? Several themes emerged after analyzing all of the data sources: teacher-research journal, student surveys, class discussions, and students' projects. The themes include the students' growth and transformation as writers, the importance of learning from each other, and the students' perceptions of themselves as writers.

Revisiting the Study

I collected data over the course of six weeks, the duration of which the students completed a writing project. First, the students took two surveys that assessed their feelings about the value of writing and what they thought about themselves as writers. The students completed the same survey at the end of the six weeks. I was able to chart the difference in the students' thoughts and feelings about writing in general as well as their own opinions regarding their own writing. From ongoing class discussions and conversations from when working in small groups, I was able to add to the insight I gained from the surveys. I recorded class conversations as well as when the students worked in their focus groups. Using my teacher-research journal, I recorded and analyzed student behaviors throughout the study. I noticed changes and growth in terms of the students' thoughts and feelings regarding their own writing. This was used as another data source to track their personal growth over the course of the six-week study.

The Students' Growth and Transformation as Writers

“Ugh, I hate writing.” This was the first quote I wrote down in my teacher-research journal on the first day of my study on October 20, 2022. I did not even introduce the writing project yet or in fact, say anything at all to the class. I simply pulled up the survey on the board for all of the students to see. Clearly one of my students noticed and shared her honest opinion about writing unprompted. Before introducing the surveys, I asked the students the question, “What do you think about writing?” and encouraged them to be honest with me. This would also be the title of the survey they would complete independently. Seven students were called on to share:

Nicole: I really like it. Makes me feel good.

Matt: My wrists hurt when I write.

Bridget: I hate it.

Alex: It's OK. I don't care about it.

Charlie: Pretty good. Takes a long time. I like it on my Chromebook.

Gianna: I like it for a project.

George: I'm bad at writing.

Out of the seven comments, I only categorized one comment, Nicole's, as a positive response. I found it interesting that Alex was able to verbalize that he does not find the value in writing while another student, Matt, missed the point about the act of writing. Several other students nodded their heads in agreement when he shared that his wrists hurt when he writes. Bridget was the student who initially inspired me to ask the students this question as she shared her opinion as soon as she saw what was on the

board. I asked Bridget why she hates writing and she further stated, “I don’t know why.” Other than a beginning of the year writing sample or the daily morning journals, the students have not completed a structured writing assignment in third grade yet. I was not sure why Bridget had such an ill-feeling about writing. It seems that she was not the only student who entered my third grade class this year with a negative attitude regarding writing.

Ever since the beginning of the year, my students did not hesitate in sharing their thoughts and opinions with the class. This became very helpful when observing my students’ behaviors and reactions when it was time for writing. One day Nicole noticed me setting up the document camera with the writing packet and asked in a cheery tone, “Are we doing writing today?” I simply nodded my head yes and she let out a loud, “Yay!” Another time when sharing the objective of today’s writing lesson: selecting the topic that we would be writing about, Hayden called out with the statement, “This is going to be the hardest decision of my life.” These unprompted opinions were recorded in my teacher-research journal and they revealed the students’ honest thoughts about the study.

At random points throughout the research project when the students were actively working on their writing projects, I would frequently check in with them and allow them to share their thoughts about the writing project. These quotes are from October 27, 2022, or the third day of the writing unit, in response to the question, “Who wants to share their thoughts on writing so far?”

Nicole: I think writing is fun. Also sometimes when I am not in the mood I just don’t want to do it. Normally at this time of the day I like it.

Fiona: I kind of like writing but it really depends on what we are writing

about. I like writing about animals. I like what I am writing about.

Hayden: I think writing is OK. I wouldn't say it was my favorite subject. It starts to hurt my hand after a while. I am a sloppy writer.

Robert: I like it. It just seems fun.

Gianna: I like doing the research. It is kinda fun. Makes you feel responsible to find research before you start writing.

Only a week has passed since the initial conversation and the students' responses are not only more positive, but more elaborate and fine tuned about the subject of writing. I would have liked for the students to enjoy the writing process more but it has only been a week. At this point, the students are collecting evidence for their writing projects and did not start the drafting process.

However, the following week I began to see growth in several students. Bridget, my very honest student, turned to her peer during Science class and stated, "I want to do writing." I quickly heard this and intervened and replied, "You want to do writing?" With that, she replied, "Yes, it's more funner." Perhaps Bridget was bored by the science lesson that day or she genuinely found an interest in writing. As I watched her evolve as a writer throughout the study, I believe she grew a liking for writing. The following is an excerpt from an earlier stage of Bridget's writing:

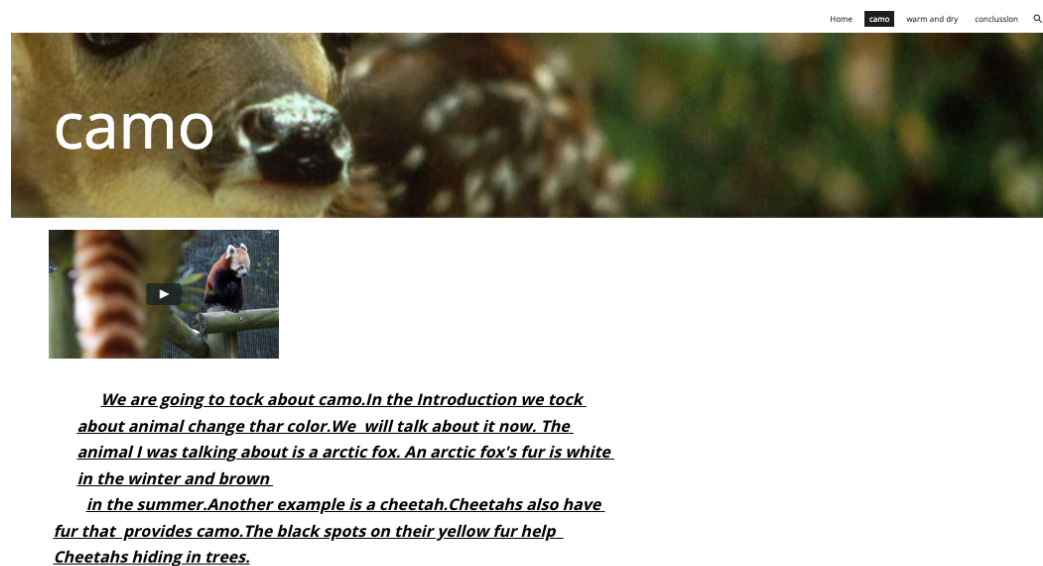
We are going to tock about camo. In the Introduction we tock about animal change thar color. We will talk about it now. The animal I was talking about is a arctic fox. An arctic fox's fur is white in the winter and brown.

It is evident that Bridget referenced the sources when developing her first body paragraph. In an effort to improve her writing, I encouraged Bridget to use more examples of camouflage. Here is her final draft and below is a picture of her website:

We are going to tock about camo.In the Introduction we tock about animal change thar color.We will talk about it now. The animal I was talking about is a arctic fox. An arctic fox's fur is white in the winter and brown in the summer.Another example is a cheetah.Cheetahs also have fur that provides camo.The black spots on their yellow fur help Cheetahs hiding in trees.

Figure 1

Bridget's Google Sites



Bridget followed my direction by adding another example of how an animal uses camouflage to survive. She stayed on topic by finding another example that focused on fur. She is one of my students that struggles with encoding and decoding. She constantly asked me to help her with her spelling or sentence structure. When I could tell she was getting frustrated, I showed her a text-to-speech tool. I found that Bridget was focused more on spelling the words correctly rather than the content. Even though the text-to-

speech tool was not flawless (“tock” instead of “talk”, “thar” instead of “that), it took the pressure off of Bridget when writing her draft. One day she thanked me for showing her “how to make writing easier for her.” I believe this was the turning point for Bridget as she added more details when she revised her writing. The multimodal tool very well could have changed Bridget’s negative outlook on herself as a writer.

During Morning Meeting towards the end of the study, Hayden shared that he showed his website to his family members at a party that weekend. He later asked if he could complete the book and poster at home for fun. (The book and poster were the other two options for the publishing phase of the project.) His comments showed the growth from a student not understanding the value and importance of writing to one feeling proud and accomplished of his work. Hayden is a natural writer and did not find the writing process particularly challenging. He followed the mini-lessons with ease when asked to apply the skills to his own writing. Also, when it came time for the publishing process, he was a leader and more than happy to help his peers. Hayden’s comments about sharing his work to his family and possibly completing more than one final project suggests that he grew as a writer and truly understood the importance of writing for an audience.

During the sixth week of the study, November 29, 2022, I checked in with the students and asked for them to share their thoughts and feelings about the writing project. Again, I encouraged the students to be honest as they shared amongst their peers in an open discussion.

George: I don’t like it. You have to do typing. I don’t like typing.

Charlie: I think I did pretty good but not the best. I feel like I could have done better.

- Nicole: Ended up pretty good. Make your own website was cool.
- Gianna: I think it was good. Stressed me out because it took a long time to fix things.
- Rose: I loved it. It was easy and hard at the same time.
- Tina: I liked mine. Think it was OK.

This time more of the students' responses explicitly addressed the writing process. This suggests that the students are now more comfortable sharing about their personal experiences. Nicole's comment directly reflected her experience creating a multimodal project. Students such as Gianna and Charlie's comments demonstrated that they genuinely cared about their writing.

Throughout the study, the students had to make two choices: the topic they would be writing about, fur, feathers, scales, or skin; and the final project, Book Creator, Google Sites, or Google Drawings. The writing unit provided in the school curriculum is designed for all of the students to write about the same animal covering, fur. However, for the purpose of the teacher research study, I wanted to examine what happened if the students had a choice. More than half of the students, 13, still chose fur when given a total of four options. See below for the breakdown of percentages for the topic the students selected (Figure 2) and the project they selected (Figure 3):

Figure 2

Topic Choice

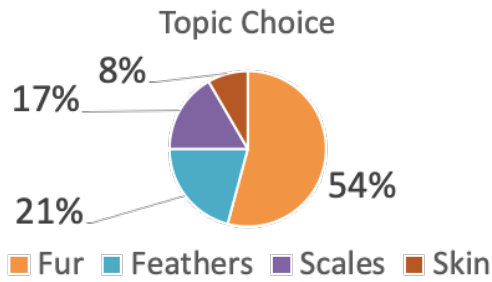
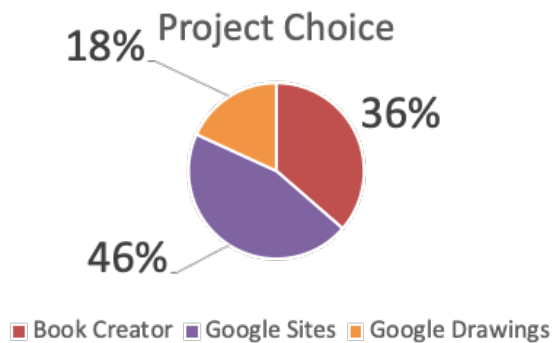


Figure 3

Project Choice



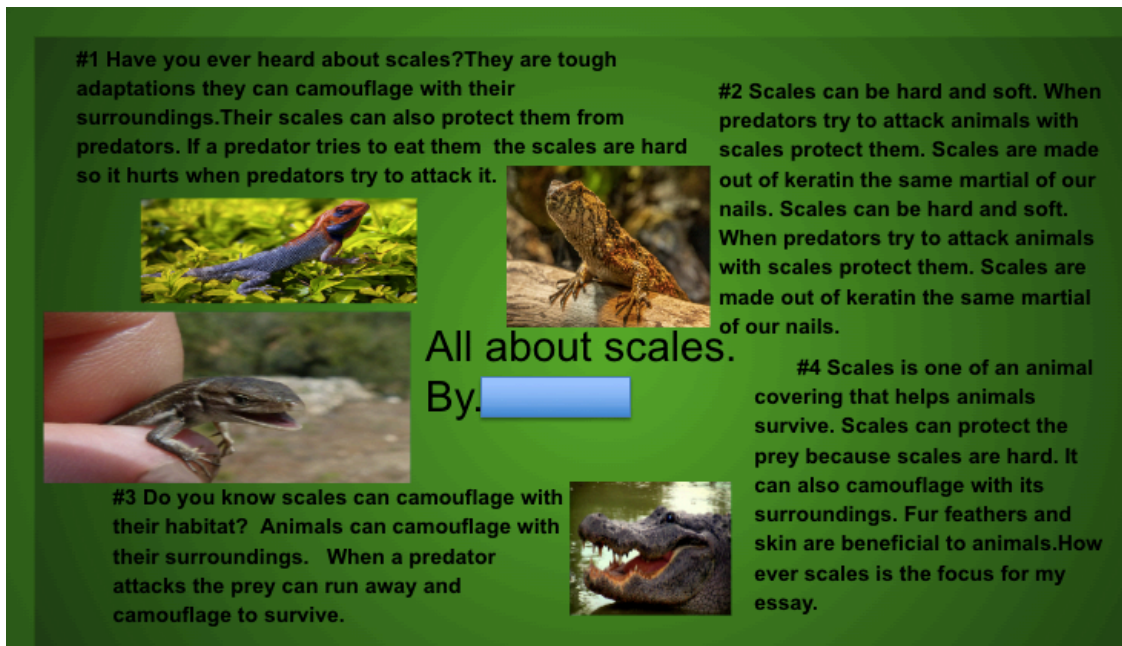
In Appendix C three multimodal projects are captured: Ryan’s Google Drawings about scales, Hayden’s Google Sites about fur, and Gianna’s digital book from Book Creator about skin.

Ryan chose the least popular project, Google Drawings. Ryan designed his poster to display photographs of his animal covering in the middle with supporting details around the border. Ryan followed my expectations by introducing the topic to the reader

first, then providing two supporting details with examples, and finally ending with a summary of the main points.

Figure 4

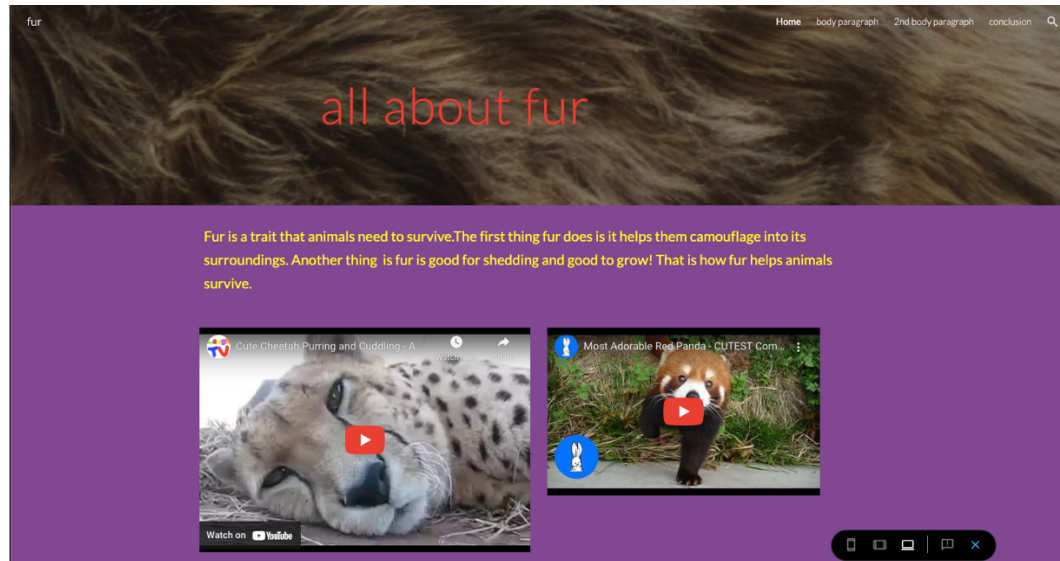
Google Drawings about Scales



Hayden chose the most popular project, Google Sites, and topic, fur. The homepage of Hayden’s website is featured below and in Appendix C. Hayden introduced his animal covering and two examples of how animals with fur use it to survive. On the webpage Hayden included several multimodal elements when designing it such as videos, text, and images. Hayden personalized his website to match the theme of his animal covering, fur.

Figure 5

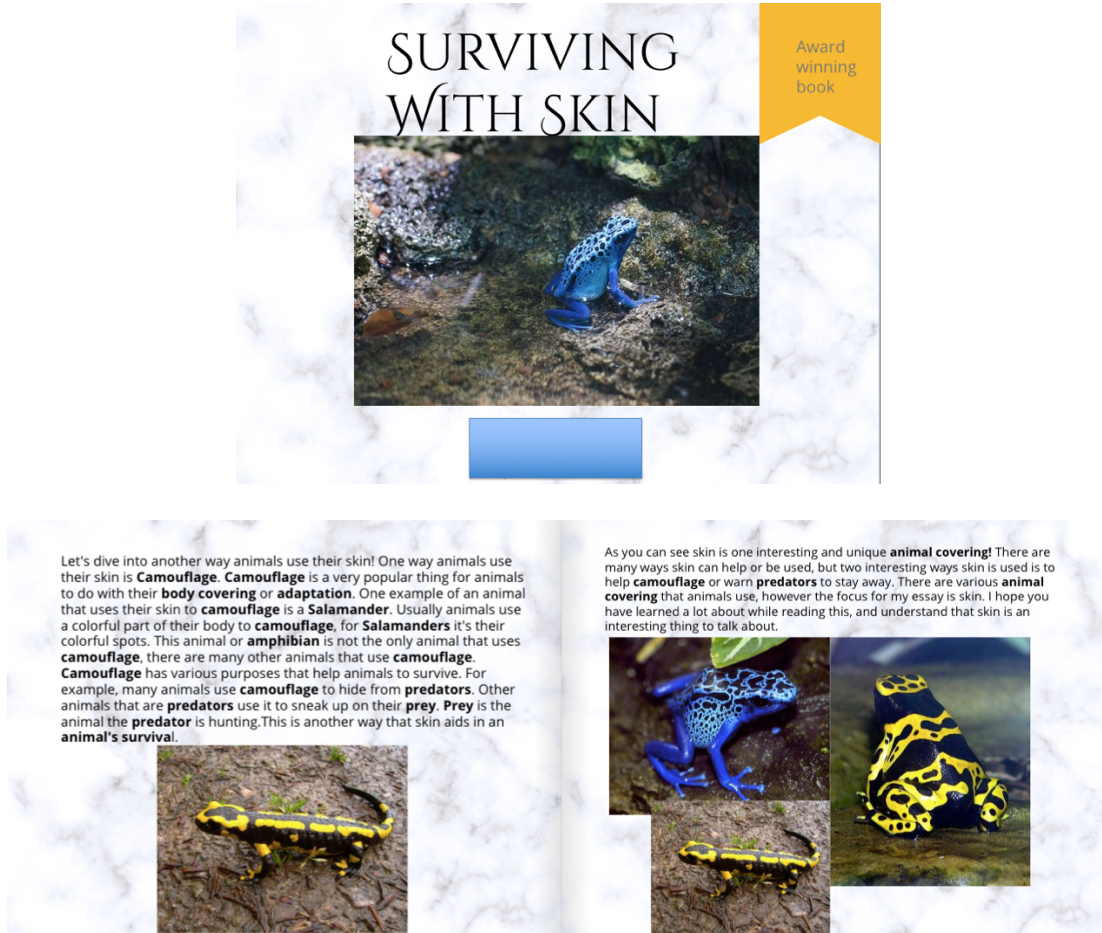
Google Sites about Fur



Gianna selected the least popular topic, skin. Gianna engaged her readers with interesting topic sentences and multimodal elements. For example, she begins a paragraph by saying, “Let’s dive into another way animals use their skin!” The multimodal elements further enhance her book. On her cover, she added an “Award winning book” banner, included several pictures of poison dart frogs to support her writing, and bolded keywords within the text.

Figure 6

Book Creator about Skin



These three students, Ryan, Hayden, and Gianna showed growth as writers. After analyzing their final projects, they not only met my writing expectations but made the projects their own by customizing them with multimodal elements. The students were engaged and motivated to do well.

Students' Perceptions of Themselves as Writers

In addition to the growth and transformation as writers, I also noticed a positive change about the students' perceptions of themselves. The pre and post surveys give more insight to the students' perceptions of themselves as writers as well as the value of writing. At the start of the study, overall the students did not see the value of writing. Only about 5% of students wanted to write reports every day. Less than 10% of the class saved the things that they wrote. By the end of the six weeks, more students recognized the importance of writing. For example, writing reports is something more students like to do. More students see themselves as writers because they save the things they write and they write something everyday. Also, their perception of themselves as writers improved as well. Fewer students are unhappy with their writing. In the short time span of six weeks, the data collected from the surveys demonstrates the improvement and growth of the students as writers.

Table 1

Pre and Post Surveys

Question	Pre	Post
I would like for my teacher to let us write reports <u>everyday</u> .	4.6%	13.6%
Writing reports is something I like to do <u>often</u> .	4.6%	22.7%
Knowing how to write is <u>very important</u> .	36.4%	45.5%
I share what I write with my family. <u>I do this a lot</u>	27.3%	40.9%
I save the things I write. <u>Always</u>	9.1%	31.8%
I write something <u>everyday</u> .	18.2%	45.5%
When I write reports, I feel <u>unhappy about what I write</u> .	40.9%	13.6%
The reports I write are usually <u>very good</u> .	13.6%	27.3%

On November 29, 2022, during the last week of the study, the students shared their honest feelings about writing in an open discussion. As I watched back the recording, I noticed a change in the students’ opinions about writing and about how they saw themselves as writers. I began the conversation by asking, “Does anybody remember what they said when I asked you what you thought about writing several weeks ago?” After some “Hmms” Gianna recalled that I asked about the difference between writing a report and a story and Alex only remembered the question asking what grade he was in. In an effort to guide the conversation to a more thoughtful reflection on the final projects, I showed several projects on the board. First, I displayed the virtual bookshelf of the books the students created on the Book Creator website. Students shouted out phrases such as, “I see mine.”, “Whose book is that?”, and “Where is your book?” In addition to

the words and phrases being stated, the students' body language changed. They were now sitting up in their chairs, pointing at the front board, turning and talking to those around them. The students were excited to find their book and were looking for one another. I joined in and stated, "These look professional, I wonder if they sell these on Amazon." Another student replied, "They probably will." The positive "Oohs and ahhs" continued when I showed the websites on Google Sites and posters on Google Drawings. Similarly to the digital books, the students were trying to find which one was theirs as well as their peers. I shared with the students they would get a closer look when they shared their projects. Even though the students could not explicitly articulate their feelings as writers, I can tell they changed in how they viewed themselves as writers from their reactions and body language.

I allowed the students two full periods to share their projects with each other. Originally, I only had one sharing day planned but the students enjoyed it so much, I wanted to add another. The students genuinely enjoyed reading and listening to each other's multimodal projects. As I circulated around the room, I took notes in my teacher-research journal. Anna realized that the Book Creator website had the ability to read the book out loud. She thought this was fascinating and made a comparison to a website we frequently use in class to read and listen to actual books. Her partner commented that her book could be featured on that website.

The final projects further displayed the students' growth as writers. Appendices C and D, Photos of Student Artifacts and Photos of Students Collaborating, respectively, show several of the final projects as well as some snapshots of the students working and sharing their projects together. When examining the students' final projects, the students

were able to synthesize the information from the two sources and combine multimodal elements to develop and publish either a digital book, digital poster, or website. From the transcripts of the students talking with each other when sharing their final projects, it is evident that the students were proud of their work. In addition to Anna's conversation with her partner, another student shared, "I did not know you could make an actual website and how easy it was." Also, Hayden commented that he showed his website to his family at a weekend party. These comments demonstrate that the students were proud of their work and perceived themselves as writers.

The Value of Learning From Each Other

After reading previous studies and research, I wanted to explore the act of collaboration throughout the entirety of the writing process. From the start of the writing unit, the students were placed in focus groups based on the animal covering they chose to write about: fur, feathers, skin, or scales. Together, they brainstormed ideas for their writing before independently drafting their own writing pieces. When it was time to edit and revise, the students met with several other students to share their feedback. Lastly, during the publishing stage, the students again were placed in three different groups according to their final project choice: Google Sites, Google Drawings, or Book Creator. The students met in collaborative groups throughout the entirety of the study. I collected data in my teacher-research journal as well as from audio recordings.

After analyzing the data, I realized that the students were not only helping each other, but they were inspiring each other with their ideas. For instance, Bridget shared with me, "I need help. I was feeling inspired by (Nicole) when she told a fact about her topic but didn't explain it fully" (teacher-research journal November 3, 2022). Bridget

was referring to the concept I taught when writing an introduction. I mentioned to the students that it is appropriate to state an interesting fact about your topic but to not go into detail. I modeled an example of an introduction paragraph but it did not fully click for Bridget until she heard someone from her focus group's introduction. Once Bridget shared this with me, I prompted Nicole to share how Bridget could revise her introduction.

Working with other students also helped students who were doubting their writing abilities. On the editing and revising day, Hayden shared, "I just want to rewrite my entire conclusion" (teacher-journal November 16, 2022). Before completely starting over, I encouraged Hayden to ask his partner for feedback. After a few rounds of switching partners, I asked Hayden if he still wanted to start over with writing his conclusion. He shared that his one partner, "Really liked it. It had good details." Getting feedback from peers can motivate and encourage students that are struggling with their writing. If Hayden did not interact with his peers, he very well could have started over with this conclusion or got frustrated.

After listening to the audio recordings, I realized that the students helped each other more than I initially thought. There is one teacher in the classroom full of twenty-two students writing about four different topics and publishing their final piece three different ways. As a teacher, I had to release some control of the classroom and allow the students to explore with each other throughout the entirety of the writing process. The following is a conversation recording on November 21, 2022 in which a small group of students, Hayden, Matt, and Kevin are each working on creating a Google Site for their final writing project:

In the beginning of the audio recording Hayden is sharing the steps of how to create a Google Site. He was the first one to begin so he is familiar with the process of creating a website and is sharing it with the other two boys.

Matt: Can I type in Mr. Smith?

Hayden: Why is everybody asking me?

Kevin: You're the smartest one in the group.

Hayden: I already made my four website pages. Now I am going to add some Google images.

Matt: Where's the copy? (Referring to how to copy and paste.) (Another student demonstrates how to complete this function.)

Hayden: I need help. Can you insert videos? (I overhear this and no one knows so I say yes. I do not tell them how but together they figure it out.)

Hayden: Yay! I'm going to insert this video about red pandas here.

Matt: What are your guys' animal coverings?

Kevin: Matt, do you need help?

Matt: Where's copy?

While I was predominantly working with another group, the students working on creating a Google Site were able to help each other without my direction with two exceptions. I taught one student how to create a Google Site and answered with a simple "Yes" when asked if you could insert a video. Hayden was able to teach the other two students how to start a Google Sites and in return, those students showed more students. The students were able to answer each other's questions without relying on me and

waiting for their turn to ask a question. The students were self-sufficient which made the process of creating their final projects smoother. I also noticed that the conversation during the entire length of the recording was focused on the writing project. The students were not discussing other topics and stayed on task. I could confidently leave this group to work on their project while I was working with other students.

The data also showed that the students felt proud and enjoyed helping each other. One student, Fiona, on November 23, 2022, called me over and said, "I'm done. What should I do?" After reminding her to submit her work and the options for when a student is finished early she asked me, "Can I stay here (on the carpet where the students working on Google Drawings were sitting) just in case they need help?" With that, she grabbed a book and returned to the carpet where she later helped students.

One of my students, Gianna, is one of my higher-level thinking students and constantly reflecting on her school work. On November 21, 2022, towards the end of the study, she asked me, "Why did I have to sit in different groups?" I asked her to answer that for herself and she thought for a second and replied, "There will always be someone else that can help you." I never told the class why they were sitting in different groups around the room during writing but Gianna was able to determine one of my reasons. In fact, the idea of helping each other was the initial reason why I wanted the students to collaborate but after analyzing the data, I realized that there are other beneficial reasons of working together: the students inspired each other with ideas by sharing their own and by gaining feedback from one another and students who were feeling insecure about their writing could receive the positive feedback they needed.

Summary of Data Analysis

The data suggests that when a multiliteracy approach is used, the student's overall achievement and success is significant. Appendix C includes examples of student work from the three different choices. It is evident that the students were able to successfully create a multimodal project.

The students were able to use evidence from two sources to support their ideas. By putting the pencil and paper to the side and incorporating technology, the students were motivated and excited to work on their projects. The students did not see themselves as writers at the beginning of the study but their outlook about writing transformed as they evolved into writers. Through a multiliteracy based project with multimodal aspects, the students fully immersed themselves into the writing process. In addition, through collaboration the students were able to learn from each other as myself, the teacher, relinquished control of the traditional writing classroom. The students were able to take control and ownership of their writing projects through this experience. On the final day of the study I knew the students thoroughly enjoyed the study when Hayden asked, "Will we be doing this again?" Even though we will not be doing the same exact project again, I reassured the students that I will try my best to make sure all of our writing units are as enjoyable as this one. Chapter Five explains the summary, conclusions, limitations and implications of this study as well as recommendations for further research.

Chapter 5

Summary, Conclusions, Limitations, and Implications

Summary

Over the course of the six week study, the students completed an informational multimodal writing project. At the conclusion of my research, I found that the students showed growth in a multitude of ways after participating in the multiliteracy assignment: they transformed as writers and individuals, developed skills necessary to work in groups, and their perceptions of themselves as writers changed.

By the end of the six weeks, the students' outlook on writing changed. According to the data collected from the surveys, more students saw the value of writing and perceived themselves as writers. By allowing the students to select the topic and project, I noticed that the students took ownership and charge of their learning. By listening to the students' conversations and by observing their body language, it was evident that they enjoyed presenting their projects to each other. By the end of the six weeks, the students were left with not only knowing how to write an informational writing piece, but with group work and computer skills as well.

Furthermore, the students used two different sources to gather evidence and drafted their writing pieces on the animal covering they chose while working in collaborative groups. Towards the end of the study, the students completed their own multimodal project of their choosing but worked closely with other students who also selected the same project. The students were encouraged to share ideas with their peers and assist each other throughout the process. I found that this study benefited the children by providing them with an environment conducive to writing, whether they enjoyed the

act of writing or struggled with the subject. If I was working closely with a student or a small group of students and another student had a question, they often used each other as a resource. By working together, the students were able to create multimodal projects including digital posters, digital books, and websites. The projects included various multimodal components such as different fonts, photographs, and videos.

Lastly, the students' overall achievement and success was significant. After examining the projects, it is evident that the students had a clear understanding of the project and were able to implement the writing task. The students were able to defend the animal covering of their choosing with evidence from the text while producing a writing piece using a multimodal approach.

Conclusions

I found that my research exposed children to an alternate way to experience writing and publishing an informational piece they would not have otherwise been exposed to. The typical third grade curriculum does not include a multiliteracy approach. By incorporating multiliteracies, the students are being exposed to skills that are important for their futures. As stated previously in Chapter 2, the New London Group (1996) believes that "all students benefit from learning in ways that allow them to participate fully in public, community, and economic life" (p. 60). My research supports this idea as it embeds multiliteracies in the teaching of writing. In the students' futures, they most likely will not be asked to write an informational writing piece about fur, but will more likely be asked to use technology or work in a group setting.

In addition to teaching writing in an alternative way, I found that this study changed students' perceptions about writing. In the beginning of the study, the act and

subject of writing was spoken about negatively by several students. This outlook changed by the end of the six weeks. Initially, the students showed little to no interest in writing and some even shared their negative opinions. As the six weeks continued, students began to anticipate when we would have our next writing lesson or willingly volunteered to share their ideas or help others with the technology components. Writing in my third grade classroom became a positive experience and engaging time for the students.

All in all, the findings of my study aligned with the findings of the current studies about multiliteracies and multimodal writing. Overall, the study was a positive learning experience for the students who participated. The third graders learned not only how to write an informational writing piece but how to work closely with a group and use technology in a new way. The students benefited from this multiliteracy experience. The study left them not only teaching them writing skills but other important life skills as well.

Limitations

Within the study, there were several limitations. First, there were issues with not having enough time to complete the project. The study was conducted during a hectic time in the calendar year with frequent disruptions such as Halloween, Fall Break, and Thanksgiving. Also, the writing unit the study was based on aligned with the rest of the reading lessons. At my school, the administration prefers for the teachers in the grade level to stay relatively on the same lesson in each content area. In addition, the writing lessons align with the reading lessons so I felt it was necessary to keep pace with the rest of the literacy unit.

There also was not a lot of diversity represented in the study. The participants consisted of only general education students. Studies such as Krishnan's (2021) featured students with IEPs and he found the students excelled with their multimodal projects. There needs to be more research on English Language Learners and the effect a multiliteracy approach has on their writing. As Krishnan's (2021) study suggests, multimodal writing projects could be successful with a wide range of abilities.

Implications

In future studies, there are areas that could be further investigated. I would be curious to see the effects of a longer study. The students' opinions changed in six weeks. I wonder how their perceptions of themselves as writers and writing in general would change in a longer period of time. It would be interesting to analyze the impact of teaching with a multiliteracy approach for an entire school year and across multiple subject areas, not just writing.

Also, this study was limited to the genre of informational writing in an elementary classroom. This study could be improved by exploring other genres of writing from opinion, narrative, or even to creative writing. It would be interesting to increase the age of the participants. Students who are more comfortable and experienced with writing could focus more on the final project and multimodal elements than collecting evidence and the drafting process.

When incorporating multiliteracies in the classroom, there are barriers that were mentioned in previous studies. For example, elements outside of the classroom such as society are an obstacle. Cordero, Nussbaum, Ibaseta, Otaiza & Chiuminatto (2018) concluded that many researchers and educators believe that reading and writing

instruction needs to change to reflect today's society but the transition has been challenging. For instance, teachers feel the pressure to follow the standards to cover the curriculum as it was intended to be taught due to the weight of standardized testing. However, some barriers can be found inside the classrooms. Mills and Exley's (2014) research found that it can be a slow process for teachers to transform their practice to reflect a multiliteracies teaching approach. For teachers that are reluctant to change, a new approach such as incorporating multiliteracies may be too overwhelming. A study that explores these obstacles could further the development and use of multiliteracies in the classroom.

Another future study could examine the validity of assessments. Burke, Butland, Roberts, and Snow's (2013) study found the assessment component of the multimodal project concerning. The teacher struggled with the idea of how to best assess the students because a traditional rubric did not follow the same components of a multimodal writing assignment. A study that focuses on various assessment strategies and techniques in the classroom would be an area in multiliteracy research that needs to be further investigated.

In conclusion, this study suggests that writing with a multiliteracy approach can have a strong impact on third grade students. The participating students transformed as writers and individuals. The students are now more comfortable with writing or working together in groups. It is important that teachers prepare their students for society by incorporating multiliteracies to meet the needs of the current classroom. As society evolves and shifts, writing pedagogy will need to be modified to match the needs of today's learners.

References

- Bal, M. (2018). Improving Informative and Narrative Writing Skills Associated with Multimodal Literacy of Middle School Students. *World Journal on Educational Technology: Current Issues*, 10(4), 79–94.
- Bezemer, J., & Kress, G. (2008). Writing in multimodal texts. *Written Communication*, 25(2), 166–195. <https://doi.org/10.1177/0741088307313177>
- Burke, A., Butland, L., Roberts, K., & Snow, S. (2013). Using Multiliteracies to “Rethink” Literacy Pedagogy in Elementary Classrooms. *Journal of Technology Integration in the Classroom*, 5(1), 41–53.
- Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. Teachers College Press.
- Codling, R. M., & Gambrell, L. B. (1997). The motivation to write profile: An assessment tool for elementary teachers. *Instructional Resource No. 38*.
- Cordero, K., Nussbaum, M., Ibaseta, V., Otaíza, M. J., & Chiuminatto, P. (2018). Read, write, touch: Co-construction and multiliteracies in a third-grade digital writing exercise. *Journal of Computer Assisted Learning*, 34(2), 162–173. <https://doi.org/10.1111/jcal.12224>
- Edwards-Groves, C. J. (2011). The multimodal writing process: Changing practices in contemporary classrooms. *Language and Education*, 25(1), 49–64. <https://doi.org/10.1080/09500782.2010.523468>
- Gregori, A. D. (2011, November 1). *Reimagining the classroom: Opportunities to link recent advances in pedagogy to physical settings*. Semantic Scholar. Retrieved from <https://www.semanticscholar.org/paper/Reimagining-the-Classroom%3A-Opportunities-to-Link-in-Gregori/fc1064e60323c66caf775a041fda85b66fe8a70a>
- Klehr. (2012). Qualitative Teacher Research and the Complexity of Classroom Contexts. *Theory into Practice*, 51(2), 122–128. <https://doi.org/10.1080/00405841.2012.662867>
- Krause, M. (2015). Connecting, creating, and composing: A shared multimodal journey. *Journal of Media Literacy Education*. <https://doi.org/10.23860/jmle-6-3-7>
- Krishnan, S. (2021). The role of multiliteracies in changing learning spaces and promoting self-advocacy for students with complex support needs. *Research and Practice for Persons with Severe Disabilities*, 46(2), 108–124. <https://doi.org/10.1177/15407969211010307>

- Lindstrom, D. L., & Niederhauser, D. S. (2016). Digital literacies go to school: A cross-case analysis of the literacy practices used in a classroom-based social network site. *Computers in the Schools, 33*(2), 103–119.
- Mills, K. A., & Exley, B. (2014). Time, Space, and Text in the Elementary School Digital Writing Classroom. *Written Communication, 31*(4), 434–469.
- Shagoury, R., & Power, B. (2012). *Living the questions a guide for teacher researchers*. Stenhouse Publishers.
- The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*(1), 60–93.
<https://doi.org/10.17763/haer.66.1.17370n67v22j160u>
- Troia, G. A., Harbaugh, A. G., Shankland, R. K., Wolbers, K. A., & Lawrence, A. M. (2013). Relationships between Writing Motivation, Writing Activity, and Writing Performance: Effects of Grade, Sex, and Ability. *Reading and Writing: An Interdisciplinary Journal, 26*(1), 17–44.
- Wiseman, A. M., Mäkinen, M., & Kupiainen, R. (2015). Literacy through photography: Multimodal and visual literacy in a third grade classroom. *Early Childhood Education Journal, 44*(5), 537–544. <https://doi.org/10.1007/s10643-015-0739-9>
- Wiseman, A. M., Pendleton, M., Christiansen, C., & Nesheim, N. (2017). A Case Study of Struggle and Success: Profiling a Third Grader’s Reading and Writing in a Multimodal Curriculum. *Journal of Language and Literacy Education, 13*(1), 55–69.
- Yamaç, Öztürk, E., & Mutlu, N. (2020). Effect of digital writing instruction with tablets on primary school students’ writing performance and writing knowledge. *Computers and Education, 157*, 103981
<https://doi.org/10.1016/j.compedu.2020.103981>
- Yamac, A., & Ulusoy, M. (2016). The effect of digital storytelling in improving the third graders’ writing skills. *International Electronic Journal of Environmental Education, 9*(1), 59–86.

Appendix A

Motivation to Write Profile - Value of Writing Survey

Name _____

Date _____

WHAT DO *YOU* THINK ABOUT WRITING?

1. I would like for my teacher to let us write STORIES _____.

- every day
- almost every day
- once in awhile
- never

2. I would like for my teacher to let us write REPORTS _____.

- every day
- almost every day
- once in awhile
- never

3. I share what I write with my classmates.

- I never do this.
- I almost never do this.
- I do this some of the time.
- I do this a lot.

4. Writing STORIES is something I like to do _____.

- often
- sometimes
- not very often
- never

5. Writing REPORTS is something I like to do _____.

- often
- sometimes
- not very often
- never

6. Knowing how to write well is _____.

- not important
- kind of important
- important
- very important

7. People who write a lot are _____.

- very interesting
- interesting
- not very interesting
- boring

8. I share what I write with my family.

- I never do this.
- I almost never do this.
- I do this some of the time.
- I do this a lot.

9. Other people in my house _____.

- spend a lot of time writing
- spend some of the time writing
- almost never write
- never write

10. When I grow up I think I will spend _____.

- none of my time writing
- very little of my time writing
- some of my time writing
- a lot of my time writing

11. I save the things I write.

- always
- usually
- sometimes
- never

12. I think writing STORIES is _____.

- a boring way to spend time
- an OK way to spend time
- an interesting way to spend time
- a great way to spend time

13. I think writing REPORTS is _____.

- a boring way to spend time
- an OK way to spend time
- an interesting way to spend time
- a great way to spend time

14. I write something _____.

- every day
- almost every day
- once in awhile
- never

15. If your teacher said that you could choose to do one of the following in the next 20 minutes, which **one** would you choose? Check only **one** thing below.

- _____ write a letter
- _____ write a poem
- _____ write a list
- _____ write in your journal
- _____ write a message or a note
- _____ write in your diary
- _____ write a story
- _____ write a report
- _____ write a paragraph
- _____ write a play
- _____ write study notes

Appendix B

Motivation to Write Profile - Self-Concept as a Writer

Name _____

Date _____

HOW DO YOU *FEEL* ABOUT YOUR WRITING?

1. My friends think I am _____.
 - a very good writer
 - a good writer
 - an OK writer
 - a poor writer

2. When I write STORIES, I feel _____.
 - very pleased about what I write
 - pleased about what I write
 - OK about what I write
 - unhappy about what I write

3. When I write REPORTS, I feel _____.
 - very pleased about what I write
 - pleased about what I write
 - OK about what I write
 - unhappy about what I write

4. I like to read what I write to others.
 - almost never
 - sometimes
 - almost always
 - always

5. When I write STORIES, I think I am _____.
- a poor author
 - an OK author
 - a good author
 - a very good author
6. When I write REPORTS, I think I am _____.
- a poor author
 - an OK author
 - a good author
 - a very good author
7. When I don't know what to write about, I _____.
- almost always get an idea on my own
 - sometimes get an idea on my own
 - almost never get an idea on my own
 - never get an idea on my own
8. The STORIES I write are usually _____.
- very good
 - good
 - OK
 - poor
9. The REPORTS I write are usually _____.
- very interesting
 - interesting
 - OK
 - boring
10. What others think about my writing is important to me.
- always
 - almost always
 - sometimes
 - almost never

11. Writing STORIES is _____.

- very easy for me
- kind of easy for me
- kind of hard for me
- very hard for me

12. Writing REPORTS is _____.

- very easy for me
- kind of easy for me
- kind of hard for me
- very hard for me

13. Check **all** the items below that you did **this week**.

- _____ wrote a letter
- _____ wrote a play
- _____ wrote a poem
- _____ wrote a letter
- _____ wrote for fun

- _____ wrote a report
- _____ wrote notes
- _____ wrote messages
- _____ wrote a list
- _____ wrote in my journal or diary

Appendix C

Photos of Student Artifacts

Google Drawings about Scales

#1 Have you ever heard about scales? They are tough adaptations they can camouflage with their surroundings. Their scales can also protect them from predators. If a predator tries to eat them the scales are hard so it hurts when predators try to attack it.



#2 Scales can be hard and soft. When predators try to attack animals with scales protect them. Scales are made out of keratin the same material of our nails. Scales can be hard and soft. When predators try to attack animals with scales protect them. Scales are made out of keratin the same material of our nails.

All about scales.
By: [redacted]


#3 Do you know scales can camouflage with their habitat? Animals can camouflage with their surroundings. When a predator attacks the prey can run away and camouflage to survive.




#4 Scales is one of an animal covering that helps animals survive. Scales can protect the prey because scales are hard. It can also camouflage with its surroundings. Fur feathers and skin are beneficial to animals. However scales is the focus for my essay.

Google Drawings about Fur

#1 Did you know that fur helps animals in many different ways? like to keep animals warm and camouflage. There are many different ways fur helps animals but those are just two ways fur helps animals survive.




#2 This is how fur helps animals stay dry. The ground coat keeps the animal warm. The ground coat does a lot for the animal. Now let's talk about the undercoat. The undercoat is against the animal's skin. Also its usually short and soft the undercoat controls the animal's temperature.




How fur helps animals survive



By:



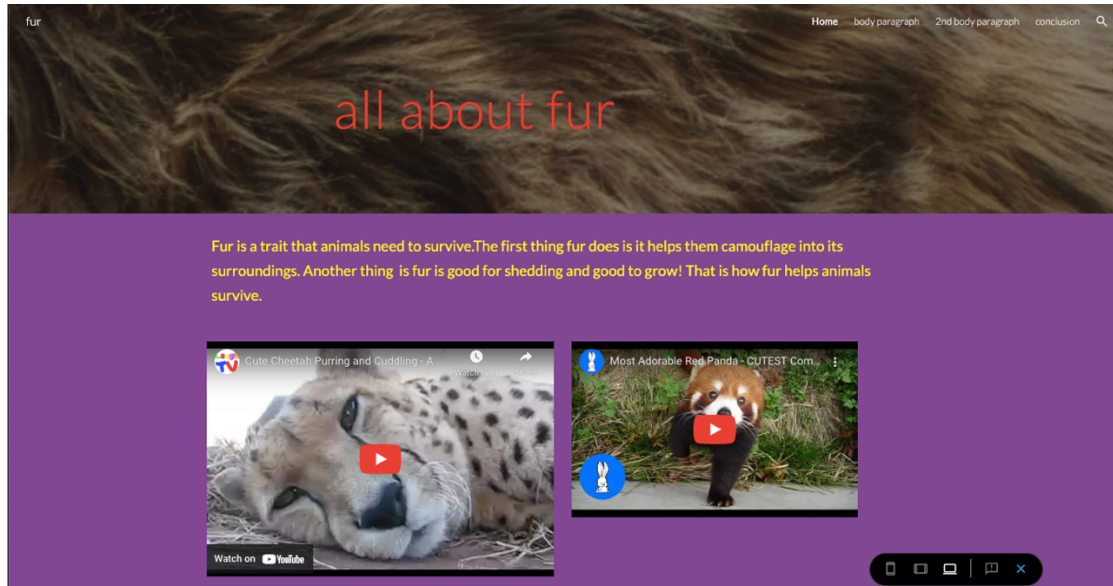
#3 Camouflage helps animals in many different ways like the cheetah the black spots on the yellow fur helps the camouflage in the trees. The arctic fox has a white coat that camouflages with the white snow. There are way more animals that uses camouflage.



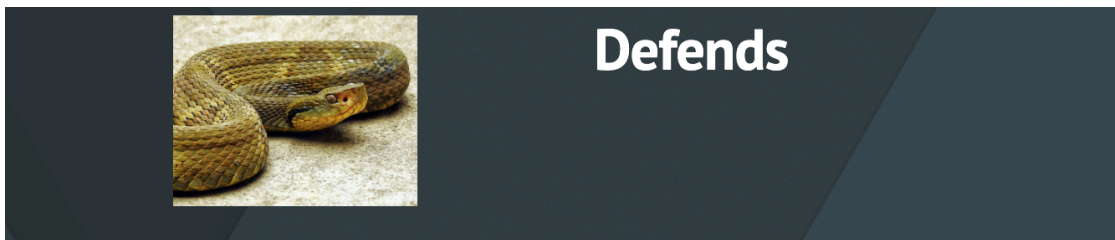
#4 Fur helps a lot of animals survive. Camouflage and staying dry are important too. Please read about skin, feathers, and scales.



Google Sites about Fur



Google Sites about Scales



Here's some ways animals with scales defend themselves. When you see scales you can think of it like armor. Scales protect iguanas from their predators because scales are hard.

[Next we'll talk about how animals with scales camouflage.](#)



Let's dive into another way animals use their skin! One way animals use their skin is **Camouflage**. **Camouflage** is a very popular thing for animals to do with their **body covering** or **adaptation**. One example of an animal that uses their skin to **camouflage** is a **Salamander**. Usually animals use a colorful part of their body to **camouflage**, for **Salamanders** it's their colorful spots. This animal or **amphibian** is not the only animal that uses **camouflage**, there are many other animals that use **camouflage**. **Camouflage** has various purposes that help animals to survive. For example, many animals use **camouflage** to hide from **predators**. Other animals that are **predators** use it to sneak up on their **prey**. **Prey** is the animal the **predator** is hunting. This is another way that skin aids in an **animal's survival**.



As you can see skin is one interesting and unique **animal covering!** There are many ways skin can help or be used, but two interesting ways skin is used is to help **camouflage** or warn **predators** to stay away. There are various **animal covering** that animals use, however the focus for my essay is skin. I hope you have learned a lot about while reading this, and understand that skin is an interesting thing to talk about.



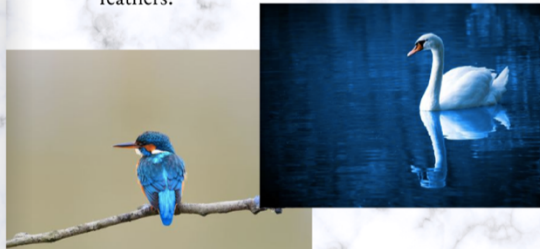
Book Creator about Feathers



Feathers can help animals move and fly,swim,land,steer and balance. Feathers can be used for other purposes, for example pengwings don't use their feathers to fly.



Feathers can help in many different ways! For example feathers can trap warm air to keep them warm and dry. Also they can help animals fly, land, swim,steer and balance. There are some facts for you to know about feathers!



Appendix D

Photos of Students Collaborating

