Hamline University DigitalCommons@Hamline

School of Education Student Capstone Projects

School of Education

Spring 2018

The Impact Of Newsela On Disciplinary Content Area Literacy To Improve Vocabulary Instruction

Nicole Anderson Hamline University

Follow this and additional works at: https://digitalcommons.hamline.edu/hse_cp



Part of the <u>Education Commons</u>

Recommended Citation

Anderson, Nicole, "The Impact Of Newsela On Disciplinary Content Area Literacy To Improve Vocabulary Instruction" (2018). School of Education Student Capstone Projects. 147.

https://digitalcommons.hamline.edu/hse_cp/147

This Capstone Project is brought to you for free and open access by the School of Education at DigitalCommons@Hamline. It has been accepted for inclusion in School of Education Student Capstone Projects by an authorized administrator of Digital Commons@Hamline. For more information, please contact digitalcommons@hamline.edu, lterveer01@hamline.edu.

THE IMPACT OF NEWSELA ON DISCIPLINARY CONTENT AREA LITERACY TO IMPROVE VOCABULARY INSTRUCTION

By

Nicole Anderson

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

Hamline University

Saint Paul, Minnesota

May 2018

Capstone Project Facilitator: Susan Manikowski

Content Experts: Jon Kahle, Sally Platt

Peer Reviewer: Sara Nelson

TABLE OF CONTENTS

CHAPTER ONE: Introduction	1
Personal Journey	2
Newsela	2
Content Area Literacy	3
Professional Significance.	4
Connection to Vocabulary	5
Rationale	5
Benefits	6
Conclusion.	7
CHAPTER TWO: Literature Review	8
Content Area Literacy Instruction.	9
Content Area Literacy	10
Disciplinary Content Area Literacy	12
Disciplinary Content Area Literacy at the Secondary Level	16
Vocabulary Instruction.	20
The Role of Vocabulary in Education	20
Academic and Content Specific Vocabulary	21
Technology and Vocabulary Instruction	22
Pros of Using Technology to Teach Vocabulary	23
Cons of Using Technology to Teach Vocabulary	26
Technology and Literacy	27
Benefits of Technology and Literacy	28

Drawbacks of Technology and Literacy	31
Newsela	33
Summary	34
CHAPTER THREE: Project Description.	36
Research/Choice of Method.	37
Setting	39
Target Audience	40
Project Description	40
Evaluation/Assessment.	41
Timeline	41
Summary	41
CHAPTER FOUR: Conclusions.	43
Major Learnings	44
Literature Review Revisited.	47
Implications	48
Limitations	49
Future Research.	50
Communicating Results	51
Benefit to the Profession.	52
Summary	52
REFERENCES	54

CHAPTER ONE

Introduction

Love and professional development would perhaps be the title of this piece if it were any other genre outside of a capstone thesis project. I can picture the cover art now. A young woman with glossy brown hair, wide rimmed glasses and an "I Love to Read" tshirt perches on her chair, seemingly listening intently to the presenter, as her hand reaches out, ever so slightly grazing the hand of a suave, studious teacher. His hand gently fondles a pen as he furiously takes notes on their incredibly relevant and inspiring professional development. Their eyes glisten with the possibilities of life together, and their newfound ability to inspire well-rounded, confident students with the determination and desire to be lifelong learners. Though the fantasy is, well, dreamy, in reality, this title stems from a young, English Language Arts (ELA) teacher's argument with her chemistry teacher husband over the practical uses of a digital learning tool, Newsela, in content areas outside of ELA. While not as glamorous, this true story has led me down the path of inquiry I never expected, specifically to the question, what is the impact of Newsela on developing disciplinary content area literacies to improve vocabulary instruction?

Within this chapter, I will first discuss my personal journeys with Newsela and content area literacy instruction. Then, I will describe the professional significance of my research question, specifically in regards to content area literacy and my focus on vocabulary instruction. Furthermore, the rationale for my project and its benefits for a number of stakeholders will be revealed. Finally, I will conclude by delineating the details of the additional chapters of this capstone project.

Personal Journey

Newsela

Newsela is a website that acts as a digital store house for non-fiction articles from a variety of genres. Each article is available in a number of Lexiles, or reading levels, and each article is attached to a comprehension quiz and writing prompt. Students can read assigned articles, select their own articles to read, annotate on the articles, and explore the different text sets that Newsela develops. I first experienced the tool Newsela my second year of teaching. It was not presented to me at a professional development setting, but rather thrust in my direction during September workshop week as a tool that was purchased by my school in order to improve tenth grade Reading MCA scores. The extent of my training with this tool was the login information and a license to explore the tool whenever I had time. Being that it was only my second year teaching, I struggled to find the time to wholly invest myself in discovering the ins and outs of this tool, but I also felt the pressure to incorporate it into my instruction. Additionally, I was excited about the potential of using a digital tool in my classroom, since the school had recently started a one-to-one iPad initiative. With hindsight, I regret the lack of time I was able to commit to exploring Newsela before thrusting it into my curriculum, but at the time I felt I was doing the right thing by creating a unit of study around non-fiction for which I used Newsela with my students.

More specifically, I structured a unit in which students were asked to explore articles of their choice on a regular basis with the intent of taking the associated quizzes. While the students enjoyed selecting their own articles to read, they were unsure of how to determine which Lexile, as there are several offered for each article, at which to read

the articles. While the quizzes seemed to be a beneficial tool, they were challenging to keep track of because I did not set up the classes correctly, and I also did not provide my students with any time to really share out about what they were reading. Worst of all, I did not provide students with enough strategy instruction to analyze or better understand the non-fiction articles. Ashamedly, this tool that I had so many hopes for did not succeed because I did not invest the time to get to know the tool and weave it into curriculum and best practice.

Armed with the knowledge that Newsela did not in itself make for an effective unit of study, I set in search of other strategies that I felt I could weave into my curriculum to best prepare students first for the world, but second for the MCA tests whose results were in a continuous decline for all of our student sub-groups. This shift in perspective shuffled Newsela into the bottom corner of my tool box, but also led to some meaningful conversations about literacy instruction. It was around this time that I began Master's classes through Hamline University, and I experienced powerful waves of information about the greatest in literacy instruction. One topic that shown brightest was content area literacy instruction, or the implementation of literacy strategies within content areas outside of ELA.

Content Area Literacy

While I knew that content area literacy was nothing new, especially at the primary and middle school level, I really pondered the effectiveness of teaching literacy across subjects in a high school setting. After all, we use literacy skills for more than just reading books inside ELA classrooms, and if we truly want students to become efficacious, life-long learners outside of school, then they need to understand how to

analyze texts in a variety of contexts and for a variety of purposes. I began initiating conversations with my co-workers about their perspectives on extending literacy instruction outside of the English classroom. At first, it seemed like ELA teachers were on board for sharing some of the pressure associated with teaching strategies for reading and writing, while other content areas were reluctant, citing the age old, "Why would I teach reading, that is your job." At the same time, glimpses of the seeds of literacy within other classes appeared from those conversations and observations. For instance, one of the biology teachers in my building was working with me in an after-school study program, and as I watched her work with some students on reading the biology textbook, I noticed that she was helping the student pick out key vocabulary terms and chunk the text in order to better understand it. After that incident, I began to see more and more glimpses of literacy instruction in the conversations with and observations of my peers, further nurturing my continued interest in content area literacy at the secondary level.

Professional Significance

The final pieces fell into place when our administration informed us that we would have the FTE to hire a full-time literacy coach, all with the intentions of raising test scores and integrating literacy practices into other content areas aside from ELA. In addition to this exciting news, my husband, who works as a Chemistry teacher at the same school, informed me that the science classes were requesting access to this "amazing and wonderful new tool they had just discovered," Newsela. After quickly explaining my prior knowledge with Newsela and flexing my proverbial literacy muscles, I realized that not only did this news provide me with an opportunity to harass my husband by demonstrating how much I knew about a technology tool that he did not, but

Newsela in other content areas would also provide me with the opportunity to explore how literacy instruction deserves a role in all classrooms.

Connection to Vocabulary

By the time we finally obtained our new Literacy Coach and settled into the school year, I was drowning in my own ideas of ways to share Newsela with my science counterparts, struggling with figuring out where to begin and with how to help other others feel comfortable fostering literacy in their classrooms. Then I thought back to that Biology teacher helping those students, and it struck me: vocabulary. While literacy is a massive monster to tackle, vocabulary instruction is something that is tangible as well as relevant to all subjects, as all content areas have their own specific lexicons. In addition to relevancy, vocabulary instruction is critical to student learning as student vocabulary vigorously increases throughout each grade level (Graves, 2007), and vocabulary is also critical because it is closely connected with student comprehension of text (Dalton & Grisham, 2011). What was even more exciting was the prospect of using Newsela to explore this facet of literacy in different subjects because it offers so many awesome options for topics, themes, and genres.

Rationale

The purpose in exploring the question, what is the impact of Newsela on developing disciplinary content area literacies to improve vocabulary instruction, is to provide my colleagues and myself with a resource for implementing Newsela and literacy practices into a variety of classrooms. While I am definitely not an expert in content areas other than ELA, I feel that this research and project can act as a sort of resource for all teachers in my building so that, rather than feeling overwhelmed by the magnitude of our

school's initiatives for content area literacy and the complexity of Newsela, we would instead just have a resource that would help guide us, so we could see both the tool and the process as an asset like many instructors already have. For instance, Janikis on the Newsela staff (2017) stated that many teachers have already found Newsela to be a great tool for teaching literacy skills, specifically in science, as they have been able to build curriculums around topics specific to the content area. I personally experienced the feeling of failure when I was unable to effectively implement Newsela the first time into my own classroom, and I do not want such an awesome tool to develop a bad reputation with the rest of the staff because they feel pressured into using it, or because they struggle to understand its effectiveness for strengthening student skillsets.

Benefits

In addition to being a useful resource for me and other teachers, this project will also remove some of the pressure of high stakes testing scores off ELA teachers, and more evenly distribute the responsibility for literacy instruction throughout the school. In turn, this will be beneficial to students as well because it will help them authentically acquire the skills for understanding and using content-specific vocabulary and expose them to a greater amount of non-fiction materials, which are clearly stated as main objectives in the Common Core States Standards. In regards to this research's effect on families, it will assure them that their students are receiving well-rounded, cohesive educations that can be applied to life outside of school. Finally, it would be a benefit to all stakeholders to make use of Newsela to its full potential as the school has purchased the pro-version of the site with the hopes of seeing improvements in student scores.

Conclusion

This chapter served as a gateway into the context of my research and project, both personally and professionally. Overall, I hope to answer the question, what is the impact of Newsela on developing disciplinary content area literacies to improve vocabulary instruction? While my first experience with Newsela was not a successful one, my struggles with the tool alongside my pursuit of continued education drew me in new directions, specifically towards disciplinary content area literacy and vocabulary instruction. Professionally, I hope this final product will provide my fellow teachers and I with a resource and process for implementing Newsela as a useful tool in literacy instruction for any and all content areas, as there are additional benefits for students, families, and policymakers as well, namely a well-rounded approach to instruction to better prepare students for life outside of school.

In Chapter Two, I review the literature relevant to content area literacy instruction, and technology's role in vocabulary instruction. Chapter Three proceeds by laying out the specifics of my project, and Chapter Four consists of my reflections and revelations about my project.

CHAPTER TWO

Literature Review

The purpose of this study is to discover how using the digital tool Newsela can facilitate content area disciplinary literacy in order to enhance student vocabulary knowledge. In this chapter, I will review research that specifically answers the question, what is the impact of Newsela on developing disciplinary content area literacies to improve vocabulary instruction? The review begins with an overview of content area literacy instruction and extends into a discussion about refined versions of content area instruction, concluding that disciplinary literacy instruction is the most effective method of literacy instruction across different content areas. Understanding the components of effective content area instruction helps uncover the methods that will best work for using Newsela across the disciplines.

The research then hones in on the role of vocabulary instruction, defining and acknowledging the role vocabulary has in instruction, and revealing that vocabulary instruction is split between two critical categories, academic and content-specific, both of which need to be taught. Additionally, the research reveals that technology does have the potential to positively impact and increase vocabulary instruction. Since all content areas have some sort of discipline specific academic vocabulary, the research around vocabulary instruction and its connection with technology helps outline a specific focus for instruction in different classes using the tool Newsela. Finally, a discussion around the role of technology in the world of literacy advises on the best methods of content area instruction using digital tools, and the research suggests that, when used appropriately,

technology has the power to greatly enhance literacy instruction, including tools like Newsela.

Content Area Literacy Instruction

Content area literacy instruction is the implementation of traditional literacy practices, reading and writing, into subject areas outside of English Language Arts (ELA). While many content areas outside of ELA incorporate reading and writing into the curriculum, specific literacy instruction throughout each discipline is not as prominent at the secondary level even though, as Shanahan and Shanahan (2008) reported, students are struggling to improve upon reading skills, and seem to be performing worse than previous years. Recent research indicates that previous content area literacy practices, specifically ones that focus on teaching one particular skill across curriculums, is ineffective (Shanahan & Shanahan, 2008). Rather, to best promote literacy at the secondary level, teachers "must focus on teaching the literacies that are necessary for participation in the disciplinary practices in which students are or will be engaged" (Siebert et al., 2016, p. 28). This kind of literacy instruction that is unique to each discipline and different from traditional literacy practices is known as disciplinary literacy (Shanahan & Shanahan, 2008).

This section provides a definition and overview of content area literacy as a whole. Then, the research further explores the characteristics of disciplinary content area literacy and the strategies that make it most effective in the secondary classroom. Finally, this section discusses the implications for content area literacy at the secondary level and the strategies that are most recommended for effective implementation. It is important to consider the overarching theories that surround content area instruction so as to best

understand how to interweave Newsela and other technology into different content area curriculums.

Content Area Literacy

The concept of content area literacy (CAL) is most often associated with the well-known motto that "every teacher is a teacher of reading" (Fisher & Ivey, 2005, p. 5).

While the purpose behind this mantra was established with positive intent, Fisher and Ivey (2005) were in agreement that this focus has done more harm than help for encouraging content specific teachers outside of the ELA classroom to take on the task of literacy instruction. More specifically, the mantra and assumption that all teachers should teach reading and writing has caused a lot of turmoil amongst instructors, as they vie to provide other content areas, like science, math, and social studies, a chance in the limelight. Teachers can and have fallen under the impression that literacy should be the focus of the ELA classroom, and they are sometimes unwilling to examine how literacy can be implemented into their own curriculums (Fisher & Ivey, 2005).

Additionally, this philosophy of molding every teacher into a reading and writing teacher lacks correlation with improvements in student experience and has not led to any improvements in student skills (Fisher & Ivey, 2005, p. 5). At the same time, researchers also acknowledge that eliminating CAL instruction would be equally as detrimental to the success of students, as school policies are constantly changing to require additional focus on basic reading and writing skills across curriculums (Moje, 2008, p. 97). In fact, when done properly and provided with the right focus, CAL instruction aids students in the development of critical thinking skills that allow them to make meaning for the various subjects and texts they currently experience and will experience in life (Moje, 2008).

CAL also, "supports the view that students construct and co-construct knowledge through activities such as discussion and reading and writing from multiple perspectives," leading to more complex and diverse conversations and analysis in class (Fisher & Ivey, 2005, p. 5). Therefore, to provide successful CAL instruction, the goal for teachers needs to be, "capitalizing on reading and writing versus teaching reading and writing..." (Fisher & Ivey, 2005, p. 6).

This form of effective CAL instruction that pushes students to critically analyze and understand text is rooted in a few different popular theories. Fang's research on the origins of CAL shared that "the cognitive approach, the sociocultural approach, the linguistic approach, and the critical approach" all play key roles in the development of CAL (as cited in Dunkerly-Bean & Bean, 2016, p. 454). The cognitive approach supports the use of cognitive strategies and tools, like mind maps, while the sociocultural approach recognizes the need for direct connections between students' everyday lives and classroom content (as cited in Dunkerly-Bean & Bean, 2016). The linguistic approach is centered in the role of vocabulary instruction, and the critical approach explores the role of analyzing diverse perspectives (as cited in Dunkerly-Bean & Bean, 2016). All together these philosophies work to establish a well-rounded base for instruction in any content area classroom. The specific hallmarks of effective CAL instruction are further explored next.

Hallmarks of effective CAL. Throughout the research, two components of CAL instruction stand out as keys for integrating literacy in all the content areas: differentiating to provide for individual student needs and offering a variety of texts with which students can engage. Fischer and Ivey (2005) emphasized the importance of

individualizing CAL instruction when they explain that effective teaching comes from understanding student needs and using those understandings to guide instruction (p. 8). Equally as important to successful CAL instruction is the provision of a variety of texts within all content areas. This definition of text extends beyond just the typical novel for ELA class or the traditional science or social studies textbook as Allington and Johnston's stated, "Effective teachers of content literacy do not rely on one-size-fits-all text but instead use a multi-sourced and multi-leveled collection of texts for learning" (as cited in Fisher & Ivey, 2005, p. 8). The use of a variety of texts is so critical because texts open up the world of language to students, more specifically all three tiers of academic language. With this open access to language through text, students are provided the opportunities to expand their educational horizons as, "learning is based in language, and students need lots of opportunities to explore, use, and reflect on language through engagement with text" (Fisher & Ivey, 2005, p. 8)

Individualized education and access to texts are essential hallmarks of traditional content area literacy instruction and have also crossed over as key components of the updated practice of CAL instruction (Moje, 2008). Recently, a different type of literacy instruction that also emphasizes differentiation and text access variety, known as disciplinary content areas literacy (DCAL) or disciplinary literacy, has taken the focus in education (Moje, 2008). The next section seeks to clarify the differences between CAL and DCAL as well as delineate the importance of this updated model of CAL instruction.

Disciplinary Content Area Literacy

Distinction from CAL. While disciplinary content area literacy holds some origins in traditional CAL instruction, it also maintains some of its own unique nuances.

Research on the topic reveals that while traditional CAL instruction tends to focus on overarching strategies that can be used across content areas, disciplinary literacy sees each content area as a separate entity and seeks to study and emphasize the literacy strategies critical for individual contents, rather than a one-size fits all method (Moje, 2008, p. 103). This is different from traditional CAL in the way that disciplinary literacy, "...dismisses the integrated approach to discipline and strategies that is a hallmark of content area literacy instruction (Dunkerly-Bean & Bean, 2016, p. 458). This focus on studying the differences between disciplines fits the policies and suggestions put out by the Common Core State Standards (CCSS). The International Literacy Association defined the connection between disciplinary content area literacy and the CCSS objectives when they say,

The disciplinary literacy standards are about teaching students to read like historians, scientists, mathematicians, and literary critics. There is definitely a place for both disciplinary and content area literacy approaches in schools, but the CCSS are about the former and not the latter. (ILA, 2015, p. 4)

This specific focus on the individuality of the disciplines links disciplinary content area literacy with other forms of literacy instruction and practice, specifically, critical literacy.

Connection to critical literacy. Learning and instruction divided by the disciplines lend themselves to more opportunities for deeper analysis within each content area, and they therefore open the door to elements of critical literacy, which is often defined as a form of literacy that seeks to investigate, question, and analyze texts for deeper meanings and new conclusions (Luke, 2012). Moje affirmed this connection to critical literacy when she said, "Disciplinary learning is...a form of critical literacy

because it builds an understanding of how knowledge is produced in the disciplines, rather than just building knowledge in the disciplines" (Moje, 2008, p. 97). Fang agreed with the connection between critical analysis and disciplinary study, claiming that higherlevel thinking occurs when content is studied in a way that is specific to each discipline (Fang, 2014, p. 444). This call for an increase in the critical nature of the disciplines holds its value in deepening student learning within the content areas, both enhancing student learning in school, but also further preparing students for study outside of the educational system. Specifically, the specialization that is present within disciplinary literacy has been shown to help students make more sense of a larger variety of difficult texts, not just novels or nonfiction articles, but textbooks, labs, and even different forms of media that the different content areas present (ILA, 2015, p. 3). Disciplinary literacy when combined with language can assist students in making meaning of texts within different disciplines (Dunkerly-Bean & Bean, 2016, p. 465), and outside of school, disciplinary literacy helps students make authentic connections to the world around them (Moje, 2008, p. 100). By exemplifying the content areas as individual entities when it comes to literacy, disciplinary literacy instruction enables students to take on relevant and authentic learning experiences for each discipline, but this kind of learning also demands certain instructional actions from teachers.

Instructional demand. With the shifting world and dynamic nature of educational expectations, it is pertinent that students can demonstrate expansive literacy and real-world accountability. The International Literacy Association described these demands when they said, "...for the first time ever, most students in the United States are required to be taught to engage in specialized forms of reading and writing that are

needed to participate successfully in the various disciplines" (ILA, 2015, p. 2). These needs require effective instruction, which involves immersing students in the application of discipline specific concepts. To do this, teachers should provide students with academic experiences that mirror the applications of the real-world discipline (Moje, 2008, p. 100). For example, students studying chemistry should be practicing literacy skills relevant to the field, like learning how to write an effective chemistry lab report. To make these kinds of provisions for students requires teachers to have a knowledge of the specifics of their disciplines, making it clear that ELA teachers cannot be the only teachers of literacy skills, as they are unfamiliar with the minutia of literacy skills required in other disciplines (ILA, 2015, p. 3).

While content area literacy has not been eliminated from education, disciplinary content area literacy is definitely making a stand in classrooms and educational policies, because, "While the CCSS did not specifically call for a shift away from content area literacy strategies, it did provide a rationale for researchers and educators to address discipline specific literacies..." (Dunkerly-Bean & Bean, 2016, p. 462). This instructional shift has positive effects on student success when students are allowed to explore authentic content within the disciplines and when teachers provide students with discipline-rich texts from which to learn. These types of content-specific texts are available in the tool Newsela, and if used appropriately, could help advance student knowledge around discipline specific content and vocabulary. To best understand how to employ these strategies at the secondary level, the next logical step is to understand what role disciplinary literacy plays in middle schools and high schools. Secondary classrooms have not always been conducive to this type of instruction because of the isolation of the

disciplines; however, there is definite potential for increasing disciplinary literacy instruction in middle schools and high schools.

Disciplinary Content Area Literacy at the Secondary Level

Past struggles. Trends are appearing that demonstrate a lack of readiness from secondary students moving out into the workforce. For example, "According to American College Testing (2006), the proportion of students on track for successful college work actually diminishes as students advance through U.S. schools from eighth through twelfth grade" (as cited in Shanahan & Shanahan, 2008, p. 42). This means that something is occurring at the secondary level that is leaving students unprepared for real-world skills. Some argue that this gap is due to a lack of understanding of literacy needs at the secondary level, or the assumption that secondary students do not need literacy instruction as it should have been covered at the elementary level (Shanahan & Shanahan, 2008, p. 46).

Moje (2008), on the other hand, argued that the missing link is effective disciplinary instruction. Secondary schools have often struggled with content area literacy as well as disciplinary content area literacy methods and instructional tools because classes and disciplines are so isolated at the secondary level (Moje, 2008, p. 99). This struggle is often attributed to an issue of philosophy, as teachers battle to connect traditional instructional techniques with the new explorative and socially dependent world of disciplinary learning (O'Brien, Stewart, & Moje, 1995). This division has led to a disconnect between secondary instruction and literacy experiences, developing a common understanding that, "...learning through literate experiences is probably limited in most secondary classrooms" (Fisher & Ivey, 2005, p. 5). Fisher and Ivey (2005) argued

that this divide has occurred because previously established and engrained secondary objectives do not line up with the new tools for disciplinary instruction (p. 5). However, Moje (2008) cited this disconnect as a discrepancy between what instructors see as important literacy and what kinds of literacy students are engaging in outside of school (p. 98). Shanahan and Shanahan (2008) also took into consideration the lack of training teachers are provided around literacy instruction, especially teachers outside of ELA.

Due to this lack of understanding by traditional literacy practitioners of current and relevant student literacies for a number of different reasons, a divide appears not just with instruction, but with texts as well because of "insufficient attention to how texts and literacy acts different across the disciplines" (Siebert et al., 2016, p. 28). Even when these texts are provided, many students struggle to understand discipline specific texts because teachers are not provided the appropriate instruction regarding the differences between texts in different disciplines and the ways in which to approach them (Shanahan & Shanahan, 2008, p. 53). To prevent this disconnect from expanding, teachers "need to know a range of teaching practices that are effective for making disciplinary texts accessible to diverse groups of learners and for developing their advanced literacies" (Fang, 2014, p. 445). Fang (2014), Shanahan & Shanahan (2008), and Siebert et al. (2016) agreed that the best way to increase student and instructor literacy skills at the secondary level is to teach and establish disciplinary literacy practices, and this calls for a better understanding of what disciplinary literacy should and can look like in middle schools and high schools.

Effective practices. A secondary student who has experienced and benefitted from disciplinary content area literacy is one who is able to "...use a variety of

representational forms...to communicate their learning, to synthesize ideas across texts and across groups of people, to express new ideas, and to question and challenge ideas held dear in the discipline and in broader spheres" (Moje, 2008, p. 99). In other words, students must be able to not only examine and challenge texts, but they also must be able to make use of the literacy skills they obtain. Teachers must help students do this by focusing on the authentic, hands-on, literacy experiences (Siebert et al., 2016, p. 28).

To reach this level of literacy, several instructional practices need to take place. First, similar to traditional content area literacy, students must be able to study language, specifically the language of the disciplines, and this is best done through the texts that are unique to each discipline (Fang & Schleppegrell, 2010, p. 588). When these texts are made available, students and teachers have the opportunities to explore the language of the different disciplines in hopes of creating and representing new disciplinary understandings (critical literacy). These texts and the language within them can come in all different formats, textual, visual, and auditory, just to name a few (Fang & Schleppegrell, 2010). For instance, reading music could be a form of literacy in a music course (Siebert et al., 2016, p. 28). These textual varieties open the door to more experimentation with evaluating and critiquing the language of the discipline. Ultimately, the goal of providing discipline-specific texts and analyzing the language within them is to allow for a well-rounded understanding of the language and concepts used in each discipline (Fang & Schleppegrell, 2010, p. 596). Establishing these kinds of texts across curriculums and schools requires a significant amount of collaboration amongst teachers and administrators alike.

The International Literacy Association stated that collaboration associated with disciplinary literacy often helps all content areas meet more standards (ILA, 2015, p. 5). With collaboration comes student success, and ILA lists a number of different forms of collaboration, including "working together in professional learning communities, online learning, study groups, peer collaboration, instructional demonstrations, peer coaching, lesson study, analysis of student work, workshops, and professional conferences" (ILA, 2015, p. 6) ILA further suggested that creating and assessing assessments together as well as forming interdisciplinary teams can be extremely helpful in advancing disciplinary literacy strategies as well as student engagement and success (ILA, 2015). Fang (2014) agreed with an increase in teacher collaboration because it helps teachers be:

...more likely to embrace—and be motivated to learn about—literacy because they can see more closely the relevance of literacy to their particular discipline and are afforded more time to explore the literacy-content connections in greater depth and in more substantive, discipline-specific ways. (p. 445)

When teachers are more engaged and well-versed with disciplinary strategies and open to communicating with one another, students gain a better understanding of how the disciplines function together and as individual units, and they become more willing to interact with the content. Once the disciplinary literacy basis is set and secondary students are active in critically analyzing the language and world around them through a variety of different texts, then they are ready to start exploring the disciplines in detail, specifically the unique vocabularies of each of the disciplines as well as the academic vocabulary in which they are constantly immersed. Disciplinary literacy instruction then becomes the outlet for reaching vocabulary instruction within each of the content areas,

opening up the potential for tools like Newsela to be used to enhance vocabulary knowledge throughout the different content areas.

Vocabulary Instruction

The research question seeks to identify how teachers can enhance literacy instruction, specifically vocabulary instruction, across the disciplines. Since different content areas focus on different vocabularies, it is important to understand the role vocabulary instruction plays in implementing disciplinary content area literacy strategies. This section begins with a discussion on the role of vocabulary in instruction. Second, this section distinguishes between content specific and academic vocabulary before concluding with the pros and cons of using technology as an aid for improving vocabulary instruction.

The Role of Vocabulary in Education

Vocabulary instruction is an area of education with which many teachers lack confidence in planning and implementation (Berne & Blachowicz, 2008). Yet, vocabulary is closely knit to comprehension (Dalton & Grisham, 2011) and called for in the CCSS (Manyak et al., 2014). Words and the meanings associated with them are the building blocks of not just language, but ultimately communication, and vocabulary is a part of students' everyday lives from the very beginning. Graves (2007) reported that once a student's education starts, his or her:

Reading vocabulary is likely to soar at a rate of something like 3,000 words a year, leading to a reading vocabulary of around 25,000 words by eighth grade and a reading vocabulary of something like 50,000 words by the end of high school. (p. 13)

This kind of exponential increase from year to year plays a major role not only in student learning, but also in the role of instruction as well.

Being so connected to comprehension, it is no surprise that vocabulary instruction is best enhanced by fostering student reading experiences (Graves, 2007). More specifically, as Graves (2007) explained, "...from the intermediate grades on, reading becomes the principle language experience for improving students' vocabularies," or the most effective way for teaching vocabulary in context and with purpose (p. 14). With this direct connection to relevant texts and overall comprehension, the role of vocabulary becomes that of a support structure for developing and extending student understanding. Because of this vital role, it is not enough to teach vocabulary in isolation or "explicitly," but rather the teacher needs to have a clear understanding of vocabulary fundamentals and "...strategies, such as using context clues, cognate information, and deciding when a word is important to know and remember" (Dalton & Grisham, 2011, p. 307). These understandings begin with being aware of the clear distinction between academic and content-specific vocabulary.

Academic and Content-Specific Vocabulary

Academic vocabulary is an extensive term that captures a range of vocabulary variations. The most frequently used definition of academic vocabulary places a distinction between "domain specific academic vocabulary" and "content-specific words used in disciplines," which means that content-specific vocabulary is actually a subsection of academic vocabulary, and not a completely different lexicon, though it does maintain unique characteristics that differ from general academic language (Baumann & Graves, 2010, p. 6). McKenna and Stahl (2015) further defined the two categories of

academic vocabulary. First, they defined general academic words as "multi-meaning words that are used across disciplines," and therefore words that can be taught and assessed in different content areas (McKenna & Stahl, 2015, p. 189). This malleability does not mean that general academic language is not complex, as general terms can carry one definition in one class, and a similar, yet slightly different definition in another (Warner & Jones, 2011). Additionally, this type of vocabulary presents an opportunity for teachers from different disciplines to collaborate and help students make connections between vocabulary that transcends the distinctions between content areas. On the other end of the spectrum, discipline-specific vocabularies "...are those Tier Three words that are conceptually associated with particular fields of study," and they are consequently nontransferable between disciplines (McKenna & Stahl, 2015, p. 189). These discipline specific lexicons are part of what makes up the need for disciplinary literacy practices that teach students how to use this content-specific vocabulary appropriately.

Both general academic language and discipline-specific academic language are critical for student success (McKenna & Stahl, 2015) and with the ever-increasing presence of technology in the classroom, vocabulary instruction is becoming an area of interest for those looking to integrate technology with elements of literacy instruction. Specifically, this research hopes to explore how technology, like Newsela, can benefit vocabulary instruction. The following section focuses on the pros and cons of fusing technologies and academic vocabulary instruction.

Technology and Vocabulary Instruction

The ever-expanding existence of technology in the world today is changing instructional practices because it is changing the demands of the world outside of schools

for which students need to be prepared, especially with the increase in technology access within the schools (Dalton & Grisham, 2011). Warner and Jones (2011) described this pervasiveness best when they said, "Technology is like electricity, it's everywhere and unavoidable," and so therefore educators need to find the ways technology can best serve vocabulary instruction as well as ways in which technology can be detrimental to vocabulary learning, so as to avoid useless practices (p. 8). The advantages of interweaving technology and vocabulary are presented first.

Pros of using technology to teach vocabulary

Technology has found a way to link the world on a personal level regardless of the multitudes of languages spoken around the globe, and so therefore it seems natural that technology could be a great aide in teaching the fundamentals of language (Nisbet & Austin, 2013). Within vocabulary instruction, technology provides opportunities for students to build digital citizenship, develop critical thinking, and demonstrate skills for collaboration.

Digital citizenship. The biggest advantage of using technology to teach vocabulary is the bi-fold experience it creates, as working with technology allows students to explore the academia, in this instance, vocabulary, and also provides students with "experience with digital technologies required in the 21st century," which in turn makes the learning relevant and enticing (Warner & Jones, 2011, pp. 8-9). In an ever-expanding world connected by multitudes of technologies, it is critical for students to not only understand what is being said to them, but also the method in which something is communicated; these are the 21st-century skills the world demands of 21st-century students.

Critical thinking. Another benefit to merging technology and vocabulary is that it forces students to think critically. Gone are the days of twenty-word-per-week vocabulary quizzes that only assess rote memorization, and here to stay are vocabulary lessons that ask students to access complex tasks and processes (Warner & Jones, 2011). More specifically, when students must use technology to make sense of vocabulary, they "...are using higher order thinking skills to create, synthesize, and apply their understanding," and ultimately climbing the ladder of complex thinking strategies (Warner & Jones, 2011, p. 7). A study performed by Wolsey, Smetana, and Grisham (2015) revealed this same extension of learning when they observed one teacher in particular, Mr. Danysh, implement technology into his vocabulary instruction. The results showed that when the students were provided with a student-centered set of vocabulary activities that focused around constructing visual representations of terms with technology, they had to dig deeper to make understandings and connections, and therefore they had to use multiple areas of their brains to synthesize their ideas, extending the learning beyond basic skills and into more advanced learning (Wolsey, Smetana, & Grisham, 2015). Technology's ability to create higher order thinking activities for vocabulary instruction is another reason it can be an asset in the classroom.

Collaboration. Another way technology supports vocabulary instruction is in the collaborative nature of the technology itself. Wolsey, Smetana, and Grisham's (2015) study revealed that another reason the students were so successful in comprehending their vocabulary was because the technology forced them to work together with one another, not only to understand the terms, but also to better understand how to manipulate the technology in a way that best demonstrated their learning of the vocabulary. This type of

learning occurred when the students were asked to use a digital tool "thinglink" to create an assignment (Wolsey, Smetana, & Grisham, 2015). Students were provided a brief introduction to the tool, and then were given the opportunity to learn different elements of the tool in small groups. This enabled students to become experts at a certain part of the digital tool, and when they were asked to create a final product, enabled them to share their individual knowledge with one another (Wolsey, Smetana, & Grisham, 2015). While collaboration can happen without technology as well, lots of different "interactive and collaborative applications" that are available to students make learning and using the tools more fun and engaging (Warner & Jones, 2011, p. 7).

Supports for learning. A third and equally critical benefit of using technology to support vocabulary instruction is technology's vast range of supports and ability to assist striving learners. Dalton and Grisham (2011) described these supports as "scaffolds and contexts in which to learn with, and about, words more profitably" (p. 306). Some of these supports can take the form of applications, which provide a multitude of different ways of practicing and understanding vocabulary (Nisbet & Austin, 2013). Nisbet and Austin (2013) found the use of applications extremely helpful in guiding striving English Language learners through the various steps involved in learning English for the first time. These technological resources work to support striving readers because they are "akin to having a library and private tutor in one hand," therefore providing individualized instruction for each student (Nisbet & Austin, 2013, p. 3). At the same time, not every element of technology produces positive effects. The drawbacks to integrating technology and vocabulary instruction are discussed next.

Cons of Using Technology to Teach Vocabulary

Technology, while it has the amazing ability to encourage digital citizenship, critical thinking, and collaboration, also carries some drawbacks when it comes to vocabulary instruction. For example, easy access to technology sometimes leads to the assumption that students do not need any direct instruction on how to use the technology, and therefore leaves students struggling to understand both the content and the digital tool. Additionally, too much technology use can lead to disinterest or technology addiction and dependence. The discussion begins with digital tool confusion.

Digital tool confusion. It is easy to assume with all the technological tools that most students have access to, that they are adept at figuring out how to use any digital tool. Before guiding Mr. Danysh through digital tool training that led to successful vocabulary instruction, Wolsey, Smetana, and Grisham (2015) observed Danysh's previous technology practices, and found that student, "...capacity for using digital environments to create and promote concept development was lacking..." and that "...they [the students] were not familiar with a means of using technology to generate new understandings..." which ultimately led to students' lack of vocabulary expansion and also an inability to reach levels of critical thinking (p. 451). Without pre-teaching, some digital tools become ineffective and actually take away from vocabulary instruction, rather than enhance it.

Technology dependence. While technology can be an excellent resource for students to enhance vocabulary instruction, it can also become a crutch or an addiction. This concept is more defined within the technology and literacy section of this review, but it is still important to consider the implications technology addiction and dependence

have for vocabulary instruction in particular. Del Siegle (2017), in his article "The Dark Side of Technology," explained that the immediate feedback received by students from technology creates a dependence on that very technology. If students receive too much of this instant feedback or entertainment when working on vocabulary assignments using technology, it could train them to be unable to adapt to other types of instruction.

The discussion about technology's role in vocabulary instruction, both positive and negative, transitions nicely into a broader discussion about the role of technology in literacy instruction as a whole. The next section explores how technology is perceived and practiced within literacy instruction and within the specific realm of disciplinary literacy. Furthermore, it describes the digital tool Newsela, how it functions, how it contributes to world of literacy, and ultimately, how it may answer the research question regarding the impact of the tool Newsela on the advancements of student vocabulary knowledge in different content classes at the secondary level.

Technology and Literacy

It is important to understand the role of technology in education and literacy practices today because the internet and tools like iPads open up a number of new doors for students and teachers to explore. Research on the integration of technology in literacy instruction will provide information on how best to integrate Newsela as a vocabulary tool into different disciplines and as a means of extending literacy instruction outside of the English Language Arts Classroom. Newsela is a digital tool that allows teachers and students to access articles on a variety of topics at different reading levels. The first part of this section will describe the benefits and drawbacks to incorporating technology into literacy instruction. The second section will focus more specifically on the digital tool

Newsela and how it has been and can successfully be incorporated into a variety of different classrooms.

Benefits of Technology and Literacy

The emergence of digital tools in the classroom is not only changing the methods teachers use to teach students literacy skills, but this arrival is also changing the standards that act as the basis for all instruction. McKenna (2014) attributed this change to the increasing necessity of student preparedness when it comes to 21st century skills, which includes digital literacy. More specifically, McKenna stated that the standards expect that students leave school knowing and understanding how to use "a burgeoning system of icons, color codes, and other conventions superimposed on the actual language of text. And they must be able to integrate information across multi-modal sources" (McKenna, 2014, p. 10). It is this increasing demand for digital natives from the core of instruction that drives the desire for more digital tools in the classroom in order to prepare students to be "fully literate by today's definition of literacy" (Hutchison & Colwell, 2014, p. 148). So far, the integration of technology and literacy instruction has revealed three major benefits: the opportunities it presents for collaboration, the possibilities for scaffolding and differentiated instruction, and the potential for greatly increasing student motivation and engagement.

Collaboration. Technology used for educational purposes has the benefit of being closely connected to the way students structure their social lives, and this presents an opportunity for students to feel more connected and therefore more willing to collaborate on school activities (Hutchison & Colwell, 2014). With so many different tools that provide access to resources and information outside of the classroom, students

are given chances to extend their knowledge as well as their associations outside of the classroom, creating for themselves an ever changing and expanding learning environment (Hutchison & Colwell, 2014). This ability to seek out other individuals as resources has definitely become an expectation for students to meet if they are to be "college- or careerready students" who can collaborate and "function in digital environments" (McKenna, 2014, p. 10). When students are fluent in digital collaboration, they feel more comfortable inserting their perspectives and developing products that can be shared with a multitude of intellectual consumers (Hutchison & Colwell, 2014). Technology creates a world where students can work together to establish literacy practices, and it also provides scaffolds and supports for striving learners.

Scaffolding and differentiation. Digital tools offer supports for struggling readers first in the way they assist teachers in data collection from which, teachers can make necessary conclusions about and modification for individual students (Tucker, 2015). Many technologies centered around literacy are also programmed to provide extra guidance and instruction for students, and McKenna (2014) called out a few of those additional functions, such as aides for, "...pronunciations, simplified wordings, second language translations, and even American Sign Language pop-ups" (p. 11). Newsela is one such tool, to be discussed in detail later, that offers a plethora of digital scaffolds and supports.

Outside of supports built into the technological tools, teachers can use digital tools to supplement traditional instruction, offering striving students examples and supports in formats that may be more accessible to students who are accustomed to living in a digital age (McKenna, 2014, p. 11). For instance, when studying a complex novel, an

instructor could use movie clips or current events pulled from the internet to help support student learning around the topics and themes addressed in the novel. Lastly, supports can be woven into instruction for struggling students through the formats of the texts provided. Hutchison and Colwell (2014) explained that technology now allows "...new multimodal text formats as traditional text...combined with sound, images, and colors in increasingly complex ways," which help to support struggling readers by providing them with different ways to read and understand the texts (p. 148). With an increase in student comprehension comes an increase in student engagement, which is another benefit to incorporating more technology into literacy instruction.

Motivation and engagement. Finally, technology helps lead students to an interest in literacy by increasing their drive and motivation to learn. For instance, digital tools like eBooks actively engage students because they are readily available and often include applications that gamify or restructure learning in a new and creative way (Siegle, 2012). Additionally, because technology holds such an important role in students' lives outside of school, they are often more willing to participate in academics when the technology helps the learning reflect that of their online lives outside of school (McKenna, 2014). The authenticity of school work that can be quickly distributed to the world via technology is another strong motivator for students as, "...these digital tools promote production of material that is viewable or accessible by multiple people who are often outside of the walls of the classroom, they allow students to compose for a broad audience," and this connection to the world outside of school can be a great motivator for students (Hutchison & Colwell, 2014, p. 154). Classroom communication and production can be greatly improved and increased when instructors provide students with the

appropriate digital tools. When digital tools are not appropriate or when students misuse these technologies are when struggles and tensions arise about incorporating technology in literacy instruction.

Drawbacks of Technology and Literacy

While technology has taken much of the educational world by storm, many teachers, especially ELA teachers, fear the consequences of depending on digital tools and texts rather than traditional print materials (McKenna, 2014). These concerns about the effect of digital tools on literacy education are split into two major veins of thought, the concern about inappropriate online conduct, including plagiarism, and psychological impacts that inevitably detract from instruction rather than enhancing it.

Inappropriate conduct. It is easy to believe that today's students are advanced when it comes to using technology, but contrary to popular belief, students still need guidance when it comes to understanding how to appropriately use technology in the classroom and for academic purposes (Davies, 2011). This misunderstanding of how to manipulate technology for educational purposes can lead to inappropriate conduct online, especially incidents of plagiarism (McKenna, 2014).

Siegle (2017) described the trouble with plagiarism when he said, "Although most students understand that directly copying someone else's writing without citing it is plagiarism, they may fail to understand that they need to cite any ideas that are not their own" (p. 232). When students are not taught how to correctly use technology for research and academic writing it is easy to fall into the trap that is plagiarism. Additionally, when provided with technology and little instruction or guidance, students often fall victim to the extensiveness of the internet. Siegle (2017) believed that the intrigue of the internet is

sometimes too enticing for young minds, and can lead them, intentionally or not, "to explore inappropriate content on the Internet..." or "...inadvertently stumble onto inappropriate content" (p. 233). With often little time to prepare for technology integration, teachers may run into these misconducts more often than they expect (Davies, 2011).

Psychological impact. Digital tools carry with them a great power to influence the minds and personalities of the user, especially when these users are adolescents with still developing brains. With technology in their hands, students have the ability to "...create a virtual world as they wish to experience the natural world," meaning, digital tools have the power to create deceiving and dangerous worlds into which students can easily fall (Siegle, 2017, p. 234). This power can be terrifying when students dig too deep into the world of technology and are unable to remove themselves. The American Psychiatric Association is working through the symptoms of a proposed technology addiction and though it has not been formally named as of yet, the fact that it is being researched models the fear there is that technology can overwhelm the mind (American Psychiatric Association, 2014).

To avoid sinking into an imaginary world or a dependence upon technology, students and teachers must be especially careful to use technology in the classroom with purpose and standards in mind so as not to overuse digital tools. Newsela is an example of a digital tool that is closely linked to standards and that has been increasing in popularity because of its ability to connect students to authentic literacy experiences using digital tools.

Newsela

One specific digital tool that is earning a fandom in education is the website Newsela. As of 2016, Newsela was found to be in use "in 75% of American K-12 schools" (Weller, 2016). Newsela is a resource that is described as "...an interface that is user-friendly for both teachers and students," that provides a stockpile of non-fiction articles from a variety of genres at several Lexile levels (Mersand, 2016, p. 25). Many teachers are turning to Newsela and similar resources because of the demand, as called out by the CCSS, for students to be able to understand and operate digital tools (Hutchison & Colwell, 2014). To best understand how Newsela is to be used to enhance student vocabulary knowledge across content areas, it is critical to review the essential components this tool offers.

Components. The major component of Newsela is its database of articles. The website provides articles in 14 different categories, including a Spanish category, that are updated daily and organized by topic, genre, or into pre-built text sets that center around the CCSS, major themes, topics, or book titles (Mersand, 2016). Each of these articles is differentiated to different Lexile Levels, which are a form of label that determines the level of difficulty of a text. The availability of different text levels is a component that has shown great success when used with English Language learners or striving readers (Mersand, 2016). Teachers can also take advantage of the quizzes, which can be assigned to an entire class or selected individually, that are connected and already created for each text to check their students for understanding (Weller, 2016).

Caitlin Tucker (2015) is an example of an instructor who uses Newsela for this kind of data collection, and she provided raving reviews about the amount of information

she can obtain about student progress. Once students begin to take the quizzes, and populate enough scores, the website helps them locate articles that best meet their individual instructional level, so they can understand the articles but also be challenged to continue progressing (Mersand, 2016). When put to the test, Newsela did not disappoint in levels of effectiveness as well. Jennifer Yien (2017) stated that when asked to read and quiz on two articles a week for at least three months in a row, students who struggled the most still increased proficiency by 11 percent, and this process also led to an increase in student motivation. Demonstrating such effective gains shows that each of these components of Newsela are essential aspects of effectively implementing Newsela into the classroom, and they each also play a role in advocating for student vocabulary comprehension growth.

Summary

In the quest to answer the research question about the *impact of Newsela on developing disciplinary content area literacies to improve vocabulary instruction*, I have explored three major veins of research: content area literacy instruction, vocabulary instruction, and the integration of technology and literacy instruction. Through this research I have come to four different conclusions. First, in order to effectively enhance literacy across content areas using Newsela, there must be a focus upon disciplinary literacy instruction. This is because disciplinary literacy instruction distinguishes between the disciplines and allows for distinctive literacy instruction for each content area (Moje, 2008). Second, once a focus has been established around the specific literacies of each content area, vocabulary can become a focus of instruction, specifically academic and content-specific vocabulary (Baumann & Graves, 2010). As the literature revealed, these

two types of vocabularies, when enhanced with technology, can lead to increased digital citizenship, critical thinking, and collaboration.

Third, I learned that technology, when used appropriately, can act as a great medium for enhancing instruction. While there are some potential drawbacks to increasing the amount of technology into literacy curriculums, like inappropriate conduct and risk for psychological impacts, there are also excellent benefits, like potential for collaboration outside of school, availability of scaffolding, increased motivation and engagement. Finally, Newsela is a tool that has a number of added positive components like a large database of articles, differentiated Lexiles and quizzes, and opportunities for data collection, that make it an effective tool for content area vocabulary instruction in middle schools and high schools.

With these conclusions in mind, I will next move into the methodology for my literacy action plan which seeks to improve student literacy experiences in one particular high school through the creation and enhancement of academic vocabulary instruction as supported by the tool Newsela. This literacy plan will provide a central goal that sets the focus for actions in five major categories: leadership and structure, literacy development across content areas, tools for success, intervention strategies, and teacher support and professional development. The capacity of the school in question will also be discussed. Furthermore, action steps, timelines, resources, and evidence of success will be structured for each key category.

CHAPTER THREE

Project Description

When operating as a small pawn in a large school and district, it can often feel like change and progress are laborious and tedious tasks, no matter how desired. These feelings can strike even deeper when working at the secondary level where students and staff are segmented into their niches, and communication amongst content areas does not always take place. To make positive change in this kind of environment, it is helpful to provide resources and action steps that offer guidance and foster communication around a common goal. The purpose of this chapter is to lay out the steps and procedures of the literacy action plan project that was created to answer the question, what is the impact of Newsela on developing disciplinary content area literacies to improve vocabulary instruction?

The purpose in developing this literacy action plan was to lay out the specific steps secondary teachers and administrators needed to take to support student literacy growth in the area of discipline-specific academic language with support from the digital tool Newsela. The construction of the plan included developing the purpose behind the project, describing the capacity and setting for the work, and structuring detailed timelines that explained how discipline-specific academic vocabulary instruction could be incorporated into an overarching literacy plan for all content areas over the course of three years.

In chapter two, I reviewed the essentials of content-area literacy instruction and came to the conclusion that disciplinary literacy is the most effective strategy for implementing literacy instruction across content areas. I also synthesized information

around effective vocabulary instruction as well as technology's role in literacy instruction, and established that when used appropriately, technology can have a positive impact on student learning. All of these conclusions and understandings acted as supports for the construction of a literacy action plan for enhancing student literacy experiences through discipline-specific academic vocabulary and the digital tool Newsela.

Chapter three seeks to provide a project overview of the literacy action plan, along with references to research that support this selected method, in order to establish this project's validity. The setting and participants will also be broken down demographically to aide in the construction of a plan that will best benefit the community at hand before describing the layout of the project in more detail. Finally, chapter three establishes a timeline for each major component of the literacy action plan to identify the required steps for effective development. The next section highlights the specific components and benefits to this type of plan.

Research/Choice of Method

Irvin, Meltzer, and Dukes (2007), in their chapter "Develop and Implement a Schoolwide Literacy Action Plan" from the text, *Taking Action on Adolescent Literacy*, described a literacy action plan as a tool that is necessary for creating literacy change. These authors also warned against the danger of creating a plan that fails to inspire action and suggested that this type of project must involve a variety of voices who are adamant about creating positive change (Irvin, Meltzer, & Dukes, 2007). Lisa Messina (2013) also described the importance of collaboration for positive change with literacy plans, specifically in regards to implementing disciplinary literacy strategies. She argued that teachers and administrators must be brought on board in regards to literacy instruction

and suggested that helping these stakeholders find a personal connection to the importance of literacy as the first major goal and starting point (Messina, 2013). Taylor and Collins further corroborated these ideas when they stated that in order for a literacy action plan to be successful, one needs to establish a clear and positive base for implementation because, "...the belief systems and level of commitment among your staff, students, and other stakeholders influence their decisions and behavior...and ultimately, affect the success of your literacy mission (Taylor & Collins, 2003, p. 4).

Once a positive, collaborative mission and framework are set, the next step towards literacy action is the format. The structure of an effective literacy action plan should "guide ongoing decisions about instruction, programming, and resource allocation" and "be measurable, coherent, concrete, and comprehensible to teachers and administrators" (Irvin, Meltzer, & Dukes, 2007, p. 2). This type of plan can include, but is not limited to, professional development, policy changes, resource expansion or development, and support of staff during implementation (Irvin, Meltzer, & Dukes, 2007).

My rationale in selecting a literacy action or literacy implementation plan for my project was to help foster a change in literacy practices in the selected school, and eventually other secondary schools, and to inspire the implementation of discipline-specific academic language in classrooms using the tool Newsela. The construction of this plan followed the recommendations set in the research and started by establishing a strong sense of collaboration within the specific setting.

Setting

The school for which this project was created, known as School A, distinguished themselves from the other two high schools in the district in many ways, one of them being the individualized Site Improvement Plan (SIP) that clarified the students' needs for the school year. The most recent SIP stated one of its main priorities was to, "Implement building-wide reading strategies in all subject areas." This goal was set for the school's population, which consisted of approximately 2,300 students and 107 licensed staff. More specifically, the student population broke down to 78% white, 7% Black/African American, 8% Asian, 3% Hispanic/Latino, and 3% two or more races.

According to the Department of Education report card, in regards to reading proficiency, as of 2017, 22.4% of tenth grade students partially met of failed to meet Reading MCA standards. Within this 22.4% of striving readers, demographic breakdowns revealed that performance gaps were also predictable by race. For instance, 19.7% of white students partially met or failed to meet MCA standards in 2017, whereas 50% of Black/African American students and 23.1% of Hispanic/Latino students partially met or failed to meet those same standards.

Ultimately, since the SIP called for literacy skills to be taught across content areas, the action plan was constructed in a way that involved the participation of all 107 licensed teachers and staff, though goals and expectations looked different in each class depending on disciplinary needs. This plan was also created by taking into consideration the specific demographics and reading proficiency results of the students in School A. It is also critical to note that students in this setting had one-to-one access to iPads, which they were expected to use as a tool for furthering learning.

Target Audience

The broader intended audience of my project was teachers and administrators at the secondary level interested in enhancing their building's disciplinary literacy methods by supporting and developing academic vocabulary instruction using the tool Newsela. On a smaller scale, this project was specifically created for School A and its population described above with the intent of providing specific strategies and tools for enhancing literacy instruction throughout the disciplines.

Project Description

The overall purpose of this project was to create a literacy plan that specifically described how a high school would enhance academic vocabulary instruction within the disciplines using the tool Newsela. The first part of the literacy action plan consisted of a clear goal and description of capacity for effective change. Then action plan then laid out the sub-goals that would need to be met to achieve the overarching goal, and for each sub-goal a timeline was developed to describe the action steps, person(s) in charge, resources required, and measurements of success over the course of three years.

The specific categories selected for this plan included leadership and structure, literacy development across content areas, tools for success, intervention strategies, and teacher support and professional development. Each category was carefully constructed to show progression of the implementation of discipline-specific academic language using the tool Newsela over the course of three years. Additionally, each category laid out the specific leadership structure, materials, and evidence of success required to implement and evaluate each step of the plan.

Evaluation/Assessment

Evaluation was built into the timelines of this literacy plan and was scheduled consistently for implementation through the evidence of success category. Additionally, throughout the course of the implementation, the plan called for each PLT (Professional Learning Team) to be directly involved in the changes and reflection. At a number of points throughout the plan, time was scheduled for reflection and evaluation of data and success, including but not limited to MCA scores, MAP scores observational rubrics, Newsela scores, and professional development reflections. The following timeline specifically describes what steps took place to construct this type of project.

Timeline

The first step in successfully completing this Capstone Project was reviewing my chapters one through three with my content expert and revising these chapters. This occurred between December of 2017 and January of 2018. Research around effective uses of Newsela continued from January-February of 2018, and construction of the implementation plan began that same February. During the spring semester of 2018, chapter four was written and all pieces of the project were revised and ready for submission by May of 2018.

Summary

Chapter three approached the research question "what is the impact of Newsela on developing disciplinary content area literacies to improve vocabulary instruction" by establishing a rationale for development of a literacy implementation plan. The intended audience for this project was secondary administrators and educators who are looking to enhance disciplinary literacy and vocabulary instruction using the tool Newsela. The

school for which this project was created is a predominately white, suburban school with approximately 2,300 students. This chapter portrayed the major steps for creating this type of plan, including obtaining data on the school, researching the tool Newsela, and writing up a plan that breaks down the steps for integrating this tool into the curriculum.

Chapter four continues by reflecting on this project, first with a discussion of the major learnings obtained from this process. The chapter then returns to the literature from chapter two and addresses the most influential research. Implications and limitations of the project will then be mentioned before concluding with the recommendations, plans for distribution, and benefits all associated with this capstone project.

CHAPTER 4

Conclusions

Reflecting on the Capstone process has brought me to an interesting crossroads of joy in the accomplishments and determination in the work yet to be completed in order to affect the kind of positive change I hope my project can provide. More specifically, I am left feeling confident and hopeful that the plans created to address the question, what is the impact of Newsela on developing disciplinary content area literacies to improve vocabulary instruction, are ones that will not only answer the question, but also bring forth more questions. In time, I hope these additional questions work to sustain an everevolving environment of literacy growth for students and staff.

This journey began in chapter one with an expression of my personal and professional connections with content-area literacy practices in my school, specifically in regards to vocabulary, as well as my experiences with the digital tool Newsela. Chapter two proceeded to describe the key research within three main areas of focus: content area literacy instruction, vocabulary instruction, and technology and literacy. Using the research as a guide, chapter three laid out the specifications for a literacy action plan created to address the research question and help schools, specifically secondary schools, develop a three-year literacy program to increase the use of academic vocabulary in all content areas using the resource Newsela. Finally, chapter four seeks to describe the learning gained thus far through the creation of the project, as well as the learning yet to come with the implementation and expansion of the project.

Chapter four will begin with an account of the learnings obtained throughout the creation of this project and will transition by revisiting the literature presented in chapter

two, commenting on key elements of research and connections that stemmed from the completion of the project. I will then consider the implications my project has on the field of education and in educational policies and discuss any major limitations that arose. My perspective will then shift to the future, as I discuss future research or recommendations related to my project as well as describe how this project might be appropriately shared and used by others. Finally, I will conclude with a discussion on the benefits of this project and a summary of key considerations.

Major Learnings

Throughout this Capstone process, one of my major goals was to develop a product that would help create some sort of change, even on a microscopic level, to better equip my current school with the tools and information to help all students achieve. I also hoped that when it was completed, this project would be the catalyst for future changes in my own teaching. As I worked with this seemingly small-scale task in mind, one of the key learnings that emerged was how intricately woven the webs of the educational system are and how even the smallest changes impact a number of different elements within the system. Working as a teacher for four years, I have not had the opportunity to see the deeper levels of planning that go into school operations, such as in the development and implementation a literacy action plan, and I was surprised by the number of pieces that had to fit into the puzzle.

As I researched effective literacy action plans, sought advice from content experts, and began building my project, the sheer magnitude of stakeholders involved was a little overwhelming at first. I learned that creating an effective literacy plan, or any sort of implementation for that matter, involved not only the expertise and voice of the

individuals developing the plan, but other voices as well. For my literacy action plan specifically, it was critical to have roles and responsibilities for administration, literacy coaches, literacy teams, instructional coaches, professional development specialists, counselors, support staff, and teachers. If even just one of these groups was left without a voice, without key tasks, or without a common goal, the plan became ineffective. My content experts were extremely influential in helping me to see the connections between all these groups of professionals, and they coached me through developing implementation tasks within my project that appealed to each one of these groups so the changes around academic language I wanted to implement would spread and eventually be self-sustainable. Additionally, being enlightened to how the weaves of the school system worked together to support literacy change revealed a second major learning, the impact of collaboration on systematic change.

Naively, I went into the construction of my project thinking that if each group had assigned roles, i.e. administration, teachers, literacy teams members, then the plan would be successful. Yet, as I dug deeper into the research and wrote up tasks for each group, I quickly realized that each group needed support from and communication with the others in order to be successful. For example, in order to create intervention strategies for striving learners, the literacy coach first needed access to student test data from administration. In order to best use these scores, teachers then needed to be brought into the conversation, to corroborate the data with classroom assessment data and anecdotal evidence. Without consistent and positive communication amongst all stakeholders, no plan, no matter how well written, can be ultimately successful. I also realized a third

major insight throughout this process: the kind of success sought in the development of this project ultimately depended on a clear goal and vision.

Realizing the importance of a clear goal and vision for writing a capstone and for developing a literacy plan is the third and final major learning I gained from this experience. When I first started constructing my literacy plan project, I was just putting together what came to mind without much rhyme or reason. While I felt like my first draft was decent, it clearly lacked the cohesiveness that it needed to make it an operational plan. With the guidance of my content experts, we realized that what was really missing was a student-centered goal that set up the structure for the rest of the plan. After realizing this, I went back to my notes and found a lot of common themes threaded throughout and was able to use these to construct an overarching goal. Once that goal was put into place, the rest of the project developed more naturally and also maintained a solid base from which it could continue to develop and prosper.

Maintaining a consistent goal and focus was critical as I wrote my paper as well, and I came to realize that my research question is what set me up for success throughout this process. Similar to when I first started developing my project, my paper and research was just a jumble of ideas that I knew I wanted to explore but didn't know where to start. After a number of revisions and discussions with peers, co-workers, and advisors, I was finally able to establish my final research question. Once this was developed, I felt like I had more structure and research came much more easily. This process really helped me to discover the importance of establishing a goal in writing, researching, and creating.

The capstone process opened my eyes to a multitude of new learnings including understanding the intricacies of developing educational change, realizing the importance

of collaboration in affecting change, and the noting the necessity of a clear goal and vision for success. Many of these learnings came through the process of researching the literature in Chapter Two. Now, at the final stages, the literature will be readdressed to explain two major links between the research and the final product.

Literature Review Revisited

The first section of the literature review that proved most beneficial during the construction of this project was the research around the benefits and instructional demands of disciplinary literacy. Much of the research cited the importance of collaboration between the disciplines as a key component of effective literacy instruction, and I used the recommendations provided by these sources in the construction of my plan. One source that was particularly helpful in this area was the International Literacy Association. They were cited several times in the research as proponents of building literacy teams and inspiring collaboration amongst disciplines to create effective literacy change (ILA, 2015). I used these suggestions, specifically the suggestion about building teams for literacy collaboration, as inspiration for the literacy team that is to be developed in the first year of my proposed literacy action plan.

Secondly, the review of the literature about academic language and its use in the classroom proved useful as I structured the action plan around academic vocabulary throughout the disciplines as a central literacy focus. Throughout the research, Fang (2014) clearly defined the need for general academic language instruction and discipline-specific academic language instruction consistently placed throughout a student's school day. Throughout the construction of my project, I looked to Fang's recommendation for

consistent and wide-spread academic vocabulary instruction to set the sub-goal for the literacy growth component of the action plan.

The literature around disciplinary literacy and academic vocabulary became useful tools for structuring the final product of the Capstone Project. It is because of these support from these resources that I am able to state the following implications and limitations of this project.

Implications

This literacy action plan project is intended to inform decision makers by providing schools, specifically secondary schools, with the template for developing a program that would improve student literacy experiences in all classrooms through the implementation of lessons centered around academic vocabulary and supported by the digital tool Newsela. This plan sets goals and establishes roles for a number of stakeholders, including but not limited to administration, literacy leaders, and teachers. One major implication would be the cooperation and collaboration required of these stakeholders to successfully implement the plan.

Since this project is formatted to extend over the course of three years, another major implication would be its sustainability. Schools interested in using this plan would first need to research and create resources, like professional development sessions, to keep this project going over the course of the initial three years. In addition, they would need to consider goals and evidence of success for their specific system to track their own progress and make decisions for continuing the plan after the initial time period expires.

This project also holds some implications at the policy level. Throughout the various levels of implementation, this plan calls for some observations and assessments

to be focused around a specific area of literacy. Also, some of the implementation tasks require professional learning teams (PLTs) to be completing specific tasks during their designated meeting times. For these elements to be implemented, decision makers may need to suggest revisions to policies around teacher observations and meeting times in order to successfully engage in tasks the project requires. The next section addresses a few limitations of this project.

Limitations

The first limitation of this project and research is the lack of studies done around the use of Newsela across an entire school building or as the fundamental tool in a literacy action plan. While the research clearly shows that Newsela has positive effects on student literacy achievement (Yien, 2017), without more research, one cannot be sure how this tool's effectiveness would manifest itself if used in every classroom by every teacher.

A second limitation that stands out is access to Newsela on a school or district level. While Newsela offers a free subscription and free features, the plan would be best implemented using the Pro version. This version can be expensive, and must be renewed on a yearly basis, meaning it would need to be purchased for three years in order to implement this plan to the fullest degree. In addition to the expense, this plan is structured around Newsela as an aide for implementation and is therefore dependent on this online tool. If something were to happen to the website itself or if it were to be discontinued, the plan would have to be reworked.

The third and final limitation of this project is that this plan was constructed for a specific school with that school's literacy needs and progress in mind. The goals and

categories selected for implementation match the needs of the school in question. In addition, the data collected to determine the capacity for the plan is specific to the school in question as well. Any other building wishing to implement a similar plan would need to modify the implementation tasks to match their literacy needs and resources available. The next section describes the potential research and changes that can be developed to move beyond the limitations of this project.

Future Research

As addressed in the limitations above, one of the key steps for future research and use of this project would be to explore the use of Newsela on a large scale. It would be beneficial to use this project as a means of collecting Newsela data for students and analyzing whether or not student literacy skills are improving based on the comprehension quizzes provided. Other useful research might include comparing student Newsela results to MCA data over the course of three years to try and identify a correlation between use of Newsela and improved MCA Reading scores.

Aside from further examining the success rate of Newsela, another potential research opportunity is further exploring disciplinary literacy instruction. While a lot of research surfaced about the positive impact of disciplinary literacy instruction on a classroom to classroom basis, not a lot of research was available to document the impact of literacy plans that aim to implement disciplinary literacy instruction on a large scale. Determining the success criteria for this type of research may be a challenge at first, and researchers might have to narrow the focus of the research to one strategy or element of disciplinary literacy instruction to monitor and evaluate in each of the disciplines. This

could be academic vocabulary, like the focus of this project, or it could be another subcategory of literacy that best suits the population in question.

While this literacy action plan lays out the steps for implementing academic vocabulary in the disciplines via Newsela, more research could be conducted about the effect of Newsela on student achievement over time and on the implementation of disciplinary literacy strategies on a large scale. The plan, in its current form, will be shared with others as described in the next section.

Communicating Results

Since this plan was constructed with a specific school in mind, results will be first shared with the literacy leaders at this secondary building. The current literacy coach at this building has also developed a literacy action plan and seeks to build a literacy team which will work to improve literacy instruction in the 2018-2019 school year. My plan for communicating results begins by becoming a part of this literacy team and sharing my project with the literacy coach and fellow team members. While we may not put the entire plan into effect immediately, I hope to have discussion with the team around ways to pull elements from my action plan to incorporate into the following school year.

On a larger scale, this project can be modified by any school to assist in the development of a literacy plan centered around Newsela, so I also plan to share my plan with some of my colleagues in my building and with other literacy leaders in my district. I plan to do so by contacting the literacy coaches in the two other high schools in the district as well as by discussing my plan with other acquaintances in each building. Sharing this plan has potential to help these schools by improving student literacy

experiences and literacy instruction beyond just in a single classroom. Additional benefits will be further discussed in the next section.

Benefit to the Profession

This literacy action plan is beneficial to teaching and education because it sets common goals for educators and creates a platform that asks a number of different stakeholders to collaborate with one another to improve literacy. While individual elements of the plan can be helpful to improving individual classroom experiences, I think its greatest asset is that it works to create a sense of community and consistency amongst educators which in turn provides consistency in what our students learn and creates a united community in which to learn. Ultimately, this plan builds upon each participant's strengths, benefiting students by providing for their literacy needs and benefiting educators by supporting them through a path of collaboration.

Summary

Chapter four described the major learnings and reflections gleaned from this capstone project process, beginning with highlighting my three key takeaways.

Throughout this project, I learned about the interconnectedness of literacy work, the need for collaborative efforts, and the importance of clear and consistent goals for success in implementing this type of plan. The chapter continued by returning to the literature review to address critical research. I then detailed the implications and limitations of this project, before describing potential research extension opportunities. Finally, the chapter concluded with a description of how this project is to be shared and with a description of evidence for its benefit to the world of education.

At the start of this paper, I painted a vivid and dramatic picture of the origins of this capstone process, namely a heated discussion between my husband and I around the nature of literacy in our school. This image returns to mind as I conclude this process not because it is still relevant, but because I think the contrast between what I thought I would learn from this process and what I actually learned from this process is striking. I started research with the dreamy intent of single-handedly answering the question what is the impact of Newsela on developing disciplinary content area literacies to improve vocabulary instruction? What I came to discover through this capstone process is that no single person, not matter how much research they conduct, will be able to impress upon the world of education the kind of positive change it needs the same way a collaborative team of dedicated individuals can inspire this change. Though I started this journey on my own, I finished with a support team that helped me construct a product that strives to inspire the same kind of collaboration and cooperation in its implementation as that which helped mold it. Learning in itself is a social activity, this process was no different, and I look forward to seeing how this project and the things it taught me manifest into new actions, discussions, and creations in the future.

REFERENCES

- American Psychiatric Association. (2014). New research press briefing: Internet addiction: review of neuroimaging studies. *In American Psychiatric Association*. Retrieved from https://www.psychiatry.org/newsroom/news-releases/internet-addiction-review-of-neuroimaging-studies
- Baumann, J. F., & Graves, M. F. (2010). What is academic vocabulary? *Journal of Adolescent & Adult Literacy*, 54(1), 4-12. doi:10.1598/JAAL.54.1.1
- Berne, J. I., & Blachowicz, C. L. Z. (2008). What reading teachers say about vocabulary instruction: Voices from the classroom. *Reading Teacher*, *62*(4), 314-323. doi:10.1598/RT.62.4.4
- Dalton, B., & Grisham, D. L. (2011). eVoc strategies: 10 ways to use technology to build vocabulary. *Reading Teacher*, 64(5), 306-317. doi:10.1598/RT.64.5.1
- Davies, R. (2011). Understanding technology literacy: A framework for evaluating educational technology integration. *TechTrends: Linking Research & Practice to Improve Learning*, *55*(5), 45-52. doi:10.1007/s11528-011-0527-3
- Dunkerly-Bean, J., & Bean, T. W. (2016). Missing the savior for the connaissance:

 Disciplinary and content area literacy as regimes of truth. *Journal of Literacy*Research, 48(4), 448-475. doi:10.1177/1086296X16674988
- Fang, Z. (2014). Preparing content area teachers for disciplinary literacy instruction.

 *Journal of Adolescent & Adult Literacy, 57(6), 444-448. doi:10.1002/jaal.269
- Fang, Z, & Schleppegrell, M. J. (2010). Disciplinary literacies across content areas:

 Supporting secondary reading through functional language analysis. *Journal of Adolescent & Adult Literacy*, *53*(7), 587-597.

- Fisher, D., & Ivey, G. (2005). Literacy and language as learning in content-area classes:

 A departure from every teacher a teacher of reading. *Action in Teacher Education*,

 27(2), 3-11.
- Graves, M. F. (2007). Vocabulary instruction in the middle grades. *Voices from the Middle, 15*(1), 13-19.
- Hutchison, A. C., & Colwell, J. (2014). The potential of digital technologies to support literacy instruction relevant to the common core state standards. *Journal of Adolescent & Adult Literacy*, 58(2), 147-156. doi:10.1002/jaal.335
- International Literacy Association (ILA). (2015). Collaborating for success: The vital role of content teachers in developing disciplinary literacy with students in grades 6
 12. In A position statement of the International Literacy Association. Retrieved from https://www.literacyworldwide.org/docs/default-source/where-we-stand/ccss-disciplinary-literacy-statement.pdf?sfvrsn=12
- Irvin, J. L., Meltzer, J. & Dukes, M. S. (2007). *Taking Action on Adolescent Literacy*.

 Alexandria, VA. Association for Supervision and Curriculum Development.
- Janikis, JJ. (2017). We're all reading teachers: building literacy in science class. In

 Newselablog. Retrieved from https://blog.newsela.com/blog/2015/11/18/were-all-reading-teachers-building-literacy-in-science-class
- Luke, A. (2012). Critical literacy: Foundational notes. *Theory into Practice*, *51*(1), 4-11. doi:10.1080/00405841.2012.636324
- Manyak, P. C., Gunten, H. V., Autenrieth, D., Gillis, C., Mastre-O'Farrell, J., Irvine-McDermott, E., . . . Blachowicz, C. L. Z. (2014). Four practical principles for

- enhancing vocabulary instruction. *Reading Teacher*, 68(1), 13-23. doi:10.1002/trtr.1299
- McKenna, M. C. (2014). Literacy instruction in the brave new world of technology. *Phi Delta Kappan*, *96*(3), 8-13. doi:10.1177/0031721714557446
- Mckenna, M.C. & Stahl, S.A. (2015). Assessment for reading instruction, 3rd edition: Guildford Press.
- Mersand, S. (2016). Newsela. Tech & Learning, 36(7), 25.
- Messina, L. (2013). Disciplinary literacy in practice: The disciplinary network as a vehicle for strengthening instruction across content areas. In Ippolitio, J., Fahey Lawrence, J. & Zaller, C. (Eds.), *Adolescent Literacy in the Era of the Common Core* (pp. 37-60). Cambridge, MA: Harvard Education Press.
- Minnesota Department of Education. (2017). *Minnesota Report Card*. Retrieved from https://rc.education.state.mn.us/
- Moje, E. B. (2008). Foregrounding the disciplines in secondary literacy teaching and learning: A call for change. *Journal of Adolescent & Adult Literacy*, *52*(2), 96-107.
- Nisbet, D. & Austin, D. (2013). Enhancing ESL vocabulary development through the use of mobile technology. *MPAEA Journal of Adult Education*, 42(1), 1-7.
- O'Brien, D. G., Stewart, R. A., & Moje, E. B. (1995). Why content literacy is difficult to infuse into the secondary school: Complexities of curriculum, pedagogy, and school culture. *Reading Research Quarterly*, 30, 442-463. doi:10.2307/747625
- Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content area literacy. *Harvard Educational Review*, 78(1), 40-59.

- Siebert, D. K., Draper, R. J., Barney, D., Broomhead, P., Grierson, S., Jensen, A. P., . . . Wimmer, J. (2016). Characteristics of literacy instruction that support reform in content area classrooms. *Journal of Adolescent & Adult Literacy*, 60(1), 25-33. doi:10.1002/jaal.526
- Siegle, D. (2012). Embracing e-books: Increasing students motivation to read and write. *Gifted Child Today*, 35(2), 137-143. doi:10.1177/1076217511436089
- Siegle, D. (2017). The dark side of using technology. *Gifted Child Today*, 40(4), 232-235. doi:10.1177/1076217517723678
- Taylor, R. & Doyle Collins, V. (2003). *Literacy leadership for grades 5-12*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tucker, C. (2015). Using data to personalize learning. *Educational Leadership*, 73(3), 82-83.
- Warner, W., & Jones, J. (2011). The wonder of words: Using technology to support vocabulary instruction. *Agricultural Education Magazine*, 83(6), 7-9.
- Weller, C. (2016). This education startup you've never heard of is in 75% of American classrooms. *In Business insider*. Retrieved from http://www.businessinsider.com/newsela-technology-classroom-literacy-2016-9
- Wolsey, T. D., Smetana, L., & Grisham, D. L. (2015). Vocabulary plus technology.

 *Reading Teacher, 68(6), 449-458. doi:10.1002/trtr.1331
- Yien, J. (2017). Best Practice: Two Quizzes a Week for High Reading Gains. *In Newsela learning and support*. Retrieved from https://support.newsela.com/hc/en-us/articles/204169119-Best-Practice-Two-Quizzes-a-Week-for-High-Reading-Gains