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## How Secondary Disciplinary Teachers Integrate Literacy Strategies to Improve Outcomes on State Assessments

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# Walden University

College of Education and Human Sciences

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Miracle T. Brewington

has been found to be complete and satisfactory in all respects,  
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the review committee have been made.

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2024

Abstract

How Secondary Disciplinary Teachers Integrate Literacy Strategies to Improve

Outcomes on State Assessments

by

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MA, Metropolitan College of New York, 2014

BA, John Jay College of Criminal Justice, 2010

Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

November 2024

## Abstract

According to recent research, secondary disciplinary teachers' (DTs) role in increasing disciplinary literacy skills is vital. The problem in this urban school district in the Southern United States was that middle school DTs acknowledge they struggle to integrate literacy strategies in their specific disciplines to improve reading outcomes on state assessments. Guided by Shanahan and Shanahan's disciplinary framework and Knowles's theory of andragogy, the purpose of this study was to investigate DTs' perceptions on integrating literacy strategies to improve reading outcomes on state assessments. A basic qualitative design was used with 10 purposefully selected secondary DTs using one-to-one, semistructured interviews. Data were coded with open and axial codes and then thematically analyzed, resulting in the following themes: DTs (a) integrate students' previously taught literacy skills in their specific disciplines; (b) select literacy strategies based on previous reading levels, reading skills and vocabulary; and (c) select reading strategies for improving elements of their disciplines by considering students' digital literacy and technology skills. The findings were used to develop the 3-day professional development for DTs to effectively integrate disciplinary literacy strategies. The findings and project have implications for positive social change as they may result in increased teacher confidence as teachers could increase their skills through professional development and might use integrated disciplinary strategies more frequently. That in turn, might help the students build needed academic skills and may foster more participation in a disciplinary culture to shape skills required of involved citizens.

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## Dedication

The completion of this doctoral study is dedicated to my Lord and Savior Jesus Christ, for without him, I am nothing; to my grandmother, Grace, who raised me to be the person I am. Grandma, it is only because of your love and sacrifice that I am standing today.

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## Table of Contents

List of Tables .....	iv
Section 1: The Problem.....	1
The Local Problem.....	1
Rationale .....	2
Definition of Terms.....	4
Significance of the Study .....	6
Research Questions.....	8
Review of the Literature .....	8
Search Strategies.....	9
Conceptual Framework.....	9
Review of the Broader Problem.....	15
Differences Between Content Area Literacy and Disciplinary Literacy .....	29
Implications.....	30
Summary .....	31
Section 2: The Methodology.....	33
Research Design and Approach .....	33
Role of the Researcher .....	37
Methodology.....	38
Participant Selection .....	38
Data Collection .....	40
Data Collection Instrument.....	41
Data Analysis .....	42



Setting .....	45
Data Collection .....	46
Results.....	48
Research Question 1 .....	55
Research Question 2 .....	55
Theme 1 .....	56
Theme 2 .....	57
Evidence of Trustworthiness, Credibility, Confirmability, and Dependability .....	58
Transferability.....	59
Summary .....	59
Section 3: The Project.....	64
Introduction.....	64
Project Genre .....	65
Rationale .....	66
Review of the Literature .....	67
Search Strategies.....	67
Conceptual Framework.....	68
Professional Development .....	70
Disciplinary Literacy Strategies.....	71
Project Description.....	73
Project Evaluation Plan.....	74
Project Implications .....	75
Stakeholders .....	76

Conclusion .....	76
Section 4: Reflections and Conclusions.....	77
Project Strengths and Limitations.....	77
Project Strengths .....	77
Project Limitations.....	79
Recommendations for Alternative Approaches .....	80
Scholarship, Project Development and Evaluation, and Leadership and Change .....	81
Project Development.....	81
Leadership and Change.....	82
Analysis of Self as Scholar .....	83
Analysis of Self as a Practitioner .....	83
Analysis of Self as Project Developer .....	84
Reflection on Importance of the Work .....	84
Implications, Applications, and Directions for Future Research.....	85
Applications for Future Research .....	86
Conclusion .....	87
References.....	88
Appendix A: The Project .....	111
Appendix B: Permission to Conduct Study Letter.....	162
Appendix C: Permission to Conduct Study Letter – Site Administrator .....	163
Appendix D: Teacher Electronic Invitation to Research Study .....	164

## List of Tables

Table 1. Georgia State Standards of Learning End-of-Grade Assessments 2018-2019 ....	3
Table 2. Codes Organized into Categories .....	49
Table 3. Data Analysis Categorization and Theme Identification.....	51
Table 4. RQ1 Theme 1: Integrating previously taught literacy skills into disciplinary instruction .....	52
Table 5. RQ2 Theme 1: Varied student reading levels, reading skills and vocabulary, specific standard being taught.....	53
Table 6. RQ2 Theme 2: Digital literacy and technology .....	54
Table 7. Application of Knowles’s Theory of Andragogy to the Professional Development “Disciplinary Literacy: You’re the Expert!” .....	69

## Section 1: The Problem

### **The Local Problem**

*Disciplinary teacher* is the collective term used in educational literature to identify secondary (middle and high school) math, science, social studies, and English language arts (ELA) teachers who possess subject-specific specialized knowledge. Each discipline requires its own instructional model for the literacy skills required, which are known as subject-specific literacy skills (Shanahan & Shanahan, 2008; Spires et al., 2020). Shanahan and Shanahan (2008) proposed that disciplinary literacy is notably different from ELA literacy in that disciplinary literacy entails specific strategies that embed literacy within the disciplines.

The problem in this urban school district in the Southern United States is that middle school disciplinary teachers acknowledge they struggle to integrate literacy strategies in their specific disciplines to improve reading outcomes on state assessments. A district-level middle school instructional coach stated that disciplinary teachers are struggling to implement evidence-based literacy strategies in their instruction. She stated that most often, disciplinary teachers carry the burden of delivering many subject-specific standards to their students in a short amount of time. The time constraints placed on disciplinary teachers may contribute to the challenges in planning for the integration of literacy strategies in lessons. The assistant principal of the school stated that while disciplinary teachers are integrating some literacy strategies in their lessons, they may not be consistent and may only use one strategy, for example, reading aloud to students.

## **Rationale**

Effective teaching and successful learning are measured best through assessment. Researchers noted that end-of-grade assessments provide cumulative information on student achievement (Cartwright et al., 2018; Osborne, 2021). That is, end-of-grade assessments are meant to sum up all of a student's knowledge and skills in a specific academic area. The results from state assessments look backward to determine if teachers have taught and students have learned all, or at least enough, of the skills needed for a student to demonstrate grade-level proficiency in an area. Both veteran and new teachers are tasked with providing literacy instruction that is differentiated to meet the individual needs of students. The best way to do this is by compiling data gathered through assessments for each individual student (Al Otaiba et al., 2016; McKenna & Stahl, 2015; Osborne, 2021).

Data from the 2019 Georgia Milestones End-of-Grade English Language Arts Assessment show that 55% of students who attend the middle school study site scored below grade level in the area of reading (Georgia Department of Education, 2020). Comparatively, data from the Georgia Milestones Math End-of-Grade Assessments for Grade 6 through Grade 8 showed that 60.4% of students scored below grade level. The data in Table 1 are evidence of the difficulties secondary school students from the local study site are facing in literacy and may reflect the challenges teachers face in improving subject-specific outcomes.

**Table 1***Georgia State Standards of Learning End-of-Grade Assessments 2018-2019*

Year	Subject	Below Grade Level (%)
2018	Language Arts	55.5
	Math	60.4
	Social Studies	56.3
2019	Language Arts	63.3
	Math	63.2
	Science	76.8
	Social Studies	54.9

Researchers have found that secondary disciplinary teachers' role in increasing disciplinary literacy skills is needed and vital if students in Grade 6 through Grade 12 are to become college- and career-ready (Davies et al., 2022; International Literacy Association, 2015). To ensure that students are college- and career-ready, schools are encouraging disciplinary teachers to be intentional about integrating literacy strategies within their disciplines. However, secondary teachers are struggling to integrate literacy strategies in their disciplines. Researchers have found that disciplinary teachers felt unprepared to use literacy strategies within their disciplines due to varying factors (Hinchman & O'Brien, 2019; International Literacy Association, 2020; Marlatt, 2018; O'Byrne et al., 2021). Teachers included that although they saw the importance of literacy, their views were influenced by their commitment to content instruction and time constraints to meet disciplinary curriculum requirements. Similarly, researchers found that discipline-area teachers often integrate literacy strategies with varying levels of resistance due to misconceptions about the usefulness of the strategies and failure to connect the relevancy of literacy to their subject-area content (Hass, 2019; Howell et al., 2021; Marlatt, 2018; O'Byrne et al., 2021).

I conducted this basic qualitative study to explore how secondary disciplinary teachers integrate literacy strategies to improve reading outcomes on state assessments. The literature indicates that disciplinary teachers are concerned about the pacing of their classes, their knowledge base/preparation, and professional development opportunities when implementing literacy strategies in their classrooms (But, 2020; Doubet & Southall, 2018; Hass, 2019; Howell et al., 2021). Disciplinary teachers are responsible for incorporating literacy strategies in their disciplines but are struggling because they do not know which literacy strategies to use in their disciplines to support and help students understand the text they are reading in class (But, 2020; O'Byrne et al., 2021; Spires et al., 2020).

### **Definition of Terms**

*College- and career-ready:* College- and career-ready is used to describe a student who can meet the criteria for and be successful in entry-level, credit-bearing college courses leading to a degree or certificate or career pathway training programs without the need for remedial coursework (Conley, 2012).

*Content area literacy:* Focuses on the ability to use reading and writing to learn the subject matter in a discipline; teaches skills that a novice might use to make sense of a disciplinary text; emphasizes a set of study skills that can be generalized across content areas (Biancarosa & Snow, 2006).

*Disciplinary literacy:* Advanced literacy instruction embedded within content area classes, such as math, science, and social studies (Shanahan & Shanahan, 2008).

*Disciplinary teachers:* Disciplinary teachers is the collective term used in the literature to identify secondary (middle and high school) math, science, social studies, and ELA teachers who possess specialized knowledge (Shanahan and Shanahan, 2008).

*End-of-grade assessments:* Tests that all students take at the end of their current grade to assess their knowledge of the content for that grade level and in the specific subject area, such as math, language arts, science, and social studies (Georgia Department of Education, 2022).

*Literacy:*

The ability to identify, understand, interpret, create, compute, and communicate using visual, audible, and digital materials across disciplines and in any context.

Over time, literacy has been applied to a wide range of activities and appears as computer literacy, math literacy, or dietary literacy; in such contexts, it refers to basic knowledge of rather than to anything specific to reading and writing.

(International Literacy Association, 2022, para. 14).

*Secondary school:* Term used to describe middle and high school (Merriam-Webster, n.d.).

*Subject-specific literacy instruction:* Green (1988) defined subject-specific literacy instruction as the teaching of a particular literacy, or set of literacy skills, that are indistinguishably part of the operation of specific subject areas as contexts for learning and meaning.



### **Significance of the Study**

This study is significant because the findings document the voices of disciplinary teachers who are asked to integrate literacy into the disciplines. The study helps the local study site by providing valuable insight to school administrators regarding potential barriers to implementing disciplinary literacy practices. The gap in practice at the study site, a Title I urban school in a large city in a Southern state, was that disciplinary teachers are challenged to effectively integrate literacy strategies recommended by evidence-based researchers and writers to support the literacy instruction of all the students in their classrooms (Davies et al., 2022; Marlatt, 2018; Spires et al., 2020; White et al., 2021). Specifically, the gap is between the research and the teachers' practices.

Researchers indicated that disciplinary teachers assist in improving overall literacy in all subjects, helping students become college- and career-ready (Hunter et. al, 2022; International Literacy Association, 2015; Lauterbach et al., 2021). Teachers' practices have not kept up with the curricular changes (Alston & Byrne Bausell, 2022; Osman & Warner, 2020). The findings from this study may be used by researchers in developing effective professional development to support teachers as they work to integrate literacy strategies to improve their students' reading outcomes on state assessments and their literacy proficiency. Each member of the middle school disciplinary teaching staff could benefit from training to increase their knowledge and skills on integrating literacy strategies in their disciplines and how to apply new pedagogical knowledge that could help to increase students' overall reading outcomes on state assessments. This basic qualitative study supports professional practice in the fields

of disciplinary literacy pedagogy, curriculum, and instruction by providing insight into how secondary disciplinary teachers are integrating literacy strategies into their instruction to help improve outcomes on state assessments.

This doctoral project study is significant because its findings may contribute to positive social change, both locally and nationally, in the field of disciplinary literacy teaching and learning. Providing secondary disciplinary teachers with additional professional development and resources will benefit and meet the needs of all students. This benefit may result in an increase in teacher confidence since researchers have shown that after receiving professional development on reading strategies for their disciplines, more teachers integrated disciplinary literacy strategies (Davies et al., 2022; Howell et al, 2021; International Literacy Association, 2020; Osman & Warner, 2020; Paul, 2018; Shanahan & Shanahan, 2014b; Yang et al., 2020). It may also increase students' self-efficacy skills. Research suggests that effective literacy instruction builds self-efficacy in adolescents regarding academic skills and may foster more participation in a disciplinary culture to shape skills required of involved citizens. Decisions made by involved citizens may influence and help promote a society that is more equitable (Colwell et al., 2021). Further, increasing students' literacy achievement will change their academic trajectories. Students who are proficient readers, writers, speakers, and listeners will be better prepared for college and career. Literacy-proficient students are also equipped to become agents of positive social change.

## **Research Questions**

My aim in this study was to determine how secondary disciplinary teachers integrate literacy strategies to improve outcomes on state assessments. To ensure the formation of research questions that are properly aligned with the study's problem, purpose, and conceptual framework, I conducted an analysis of these components. An analysis of the components yielded the following research questions:

Research Question 1 (RQ1): How are disciplinary teachers using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments?

Research Question 2 (RQ2): How do disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments?

## **Review of the Literature**

The literature that informs this study is guided by the problem, the purpose, and the research questions. The research questions I designed for this study, which align with the Georgia state standards for disciplinary instruction, guided the study and gathered qualitative explanations of how secondary teachers view instruction in ways that align with literacy research on effective disciplinary literacy strategies and pedagogy. The questions were written with the goal to explore and understand how secondary disciplinary teachers' pedagogical approaches for teaching subject-specific knowledge weave disciplinary literacy instruction in their disciplines to support student learning for successful end-of-grade assessments. The literature I collected to inform my study's

research method aligns to the research questions and takes an in-depth look at the qualitative areas of how secondary teachers embed disciplinary literacy strategies in their subject-specific instruction and how they use the strategies to prepare students for the end-of-grade assessments.

### **Search Strategies**

I conducted a thorough search of the literature to examine research relevant to literacy, literacy-based instruction, and disciplinary teachers. I collected the articles for this literature review from peer-reviewed journals, educational journals, academic journals, and textbooks made accessible by Walden University. I was able to access databases from Walden's library through ProQuest, EBSCO, Sage, Education Source, Academic Search Complete, APA PsycINFO, and ERIC. My inquiry yielded results of approximately 3,000 articles/texts. To narrow my result, I selected articles dated between 2017-2022, which resulted in about 200 sources. The keywords and concepts used to conduct the searches and locate articles were *reading fluency*, *disciplinary literacy*, *reading comprehension*, *secondary teachers*, *middle school*, *science*, *math*, *social studies*, *history*, and *disciplinary literacy challenges*. This review of literature provides background knowledge on the topic of disciplinary literacy in the areas of pedagogy and instructional practice.

### **Conceptual Framework**

Shanahan and Shanahan's (2008) disciplinary framework was the conceptual framework, and Knowles's (1980, 1984) theory of andragogy was used to frame the study. Knowles provided the framework to understand how disciplinary teachers, as adult

learners, advanced their instructional practices when integrating disciplinary literacy strategies and what additional learning was necessary for continuous integration of literacy strategies into their disciplines. Shanahan and Shanahan (2008) provide a lens for disciplinary literacy that is embedded in science, math, and social studies. They propose that disciplinary literacy is notably different from ELA literacy in that disciplinary literacy entails specific strategies that embed literacy within the disciplines (Shanahan & Shanahan, 2008). Shanahan and Shanahan's application of disciplinary literacy was based on the insufficient progress of content area literacy to address the adolescent reading crisis. Shanahan (2020) stated that the science of reading requires more than simple phonics and alphabetic instruction, an approach that is used in many primary classrooms. Shanahan called for instruction that is consistent with current research findings.

Within this basic qualitative study, my goal was to understand the barriers and challenges for secondary disciplinary teachers when integrating literacy strategies into their instructional plans. To understand the barriers and challenges those secondary disciplinary teachers face, an understanding of the disciplinary teachers as adult learners is necessary. Knowles (1950), in his theory of andragogy, asserted that adults should develop a mature understanding of themselves and what their needs, motivations, interests, capacities, and goals are. Knowles also stated that adults ought to be able to look at themselves objectively and maturely (1950). Therefore, it is imperative to understand how teachers are challenged to continuously and effectively implement literacy strategies to increase outcomes on state assessments, as reported by the assistant principal, instructional coach, and disciplinary teachers themselves.

### ***Knowles's Theory of Adult Learning (Andragogy)***

In 1970, Knowles popularized the theory of andragogy, making five assumptions about how and why adult learners are distinct from younger learners. He asserted that andragogy was the answer to the weaknesses of pedagogy. Knowles (1970) felt that the purpose of primary and secondary education did not carry over to adult education.

Knowles (1980) stated that in elementary, middle, and high school education, pedagogy is viewed as a passive transfer of knowledge and skills that has stood the test of time.

Knowles (1980) also stated that it is content-driven and fact-laden. Knowles (1980) noted that adult learners required applicable knowledge. Therefore, they are resistant to the strategies of traditional pedagogy, such as drills, quizzes, examinations, lectures, and memorization.

Knowles (1980) believed that there was value in the information that adults learned, and they needed to see it. Adult learners are unique in that they come with an array of experiences in the learning setting and can be used as a resource for educators in the classroom (Knowles, 1980). Out of this belief, Knowles (1980, 1984) made five assumptions about the characteristics of adult learners (andragogy).

- As a person matures, their self-concept moves toward being a self-directed human being.
- Adults gather a growing bank of experience that becomes a resource for learning.
- As an adult takes on various social roles, their readiness to learn shifts toward those roles.

- As a person matures, the application of their learning changes from subject centeredness perspective to problem centeredness perspective.
- As adults mature, they become intrinsically motivated to learn.

These assumptions of adult learning provide insight into how adults learn, in conjunction with Shanahan's (2020) seminal research and Shanahan and Shanahan's multiple works over many years (2008, 2012, 2014a, 2014b). The Shanahan and Shanahan framework was groundbreaking and was developed to address a problem in adolescent literacy. The framework highlights the importance of literacy within the disciplines and provides a window into how adults should be applying their disciplinary literacy knowledge.

Knowles (1984) eventually added four principles of adult learning that are applicable to teachers' learning:

- Adults ought to be involved in the planning and evaluation of their instruction.
- All experiences (including mistakes) provide the basis for learning activities.
- Subjects that have immediate relevance and impact on their job or personal life are the ones that adults are interested in the most.
- Adult learning is problem-centered and not content-oriented (Kearsley, 2010).

These principals provide a possible explanation for the challenges disciplinary teachers may be facing when integrating literacy strategies in their disciplines.

**Knowles's Assumptions and Principles Guiding the Research.** Knowles's (1984) first assumption is as follows: As a person matures, their self-concept moves toward being a self-directed human being. This assumption can be summarized as the

learner's self-concept. Adult learners have a self-concept of being responsible for their own decisions and for their own lives. Once they find themselves in that self-concept, they develop a deep-rooted psychological need to be viewed and treated as being capable of self-direction. They dislike and avoid situations in which they feel others' wills are being forced on them. Previous studies found that disciplinary area teachers felt unprepared to use literacy strategies within their disciplines due to varying factors (Hinchman & O'Brien, 2019; International Literacy Association, 2020; Kushner & Phillips, 2020; Yang et al., 2020). This study explored the possibility that one of the barriers disciplinary teachers face is possibly that of not being viewed as self-directed.

Knowles's (1984) fifth assumption asserts the following: As adults mature, they become intrinsically motivated to learn. This assumption can be summed up into four words: the need to know. Adults want to know why they need to learn something before committing to learning it. Tough (1979) found that when adults seek to learn something on their own, they will invest their time in looking into the benefits they will gain from learning it and the negative outcomes of not learning it. Additionally, Merriam (2002, 2015) stated that adult learners want to feel they are respected, accepted, and supported, and seen as joint owners of their learning. Researchers concluded that discipline-area teachers often integrate literacy strategies with varying levels of resistance due to misconceptions about the usefulness of the strategies and failure to connect the relevancy of literacy to their discipline-area content (Drew & Thomas, 2018; Hass, 2019; Howell et al., 2021; Kushner & Phillips, 2020; Lauterbach et al., 2021; Savitz et al., 2019).



*Shanahan and Shanahan*

To effectively study a discipline, learners must understand how teachers use literacy in that discipline and how they can build, analyze, and display knowledge in that discipline, thus enhancing their learning experience (Garcia-Verdugo & Lopez-Bonilla, 2020; Moje, 2007, 2008; Shanahan & Shanahan, 2008; Spires et al., 2020; Zygoris-Coe, 2012). Green and Lambert (2018) and Shanahan and Shanahan (2008) asserted that literacy differs across disciplines and that advanced literacy instruction integrated within disciplinary classes should be a focus of secondary and middle school settings. Researchers have shown that literacy integration differs across disciplines (Frambaugh-Kritzer & Buelow, 2022; Shanahan, 2020; Shanahan & Shanahan, 2008, 2012, 2014a, 2014b; Spires et al., 2020; Wosley et al., 2019;).

In social studies, students may need to know content-specific vocabulary, such as affirmative action, reverse discrimination, the Civil War, economic value, and human capital (Dyches & Gunderson, 2020; Shanahan & Shanahan, 2014a). In math and science, students may need to know when and how to use common quantitative terms such as less than and fewer than; teachers also need to introduce more technical and subject-specific vocabulary, such as monoglycerides and rhombus. Researchers have noted that it is not enough for students to know technical terms. Teachers should help students build an appreciation of the nature of the words and definitions on which a discipline focuses. Students also need to learn how to use them strategically in speaking and writing (Hunter et al., 2022, 2023; Shanahan & Shanahan, 2014a; Spires et al., 2020).

When comparing a science class to an English class, researchers found that students often need instructional support in reading science texts, as well as an understanding of how and why scientists write (Hunter et al., 2022, 2023; Shanahan & Shanahan, 2014b; Spires et al., 2020). Comparatively, in math, students are expected to think like mathematicians and to master the language of mathematics as part of their journey to developing mathematics literacy (Frambaugh & Buelow, 2022; Osborne, 2021). Students' abilities to interact with discipline-specific texts and vocabulary are imperative to their success across the disciplines. Knowles (1984) asserted that subjects that have immediate relevance and impact on their job or personal life are the ones that adults are interested in the most. Disciplinary teachers think that disciplinary literacy is something they must add to their lessons, as opposed to integrating and embedding literacy in their lessons. To understand why teachers are struggling, we must understand the way adult learners think. Knowles (1980) proposed that adult learners need to see the value in the information they learn. Specifically, secondary disciplinary teachers need to see the value in integrating literacy strategies into their lessons.

### **Review of the Broader Problem**

To conduct an in-depth look at how secondary teachers embed disciplinary literacy strategies in their subject-specific instruction and how they use the strategies to prepare students for the end-of-grade assessments, I searched a range of related topics for evidence of the broader problem. The keywords and concepts I used to conduct the searches and locate articles were *common core standards, literacy and academic achievement, content area literacy, disciplinary literacy, science, math, social studies,*

*history, and disciplinary literacy instruction, disciplinary literacy, and English language learners.* In this section, I review evidence of the broader problem.

### ***Common Core Framework***

In 2009, under the direction of state leaders, the Common Core State Standards (CCSS) were developed to establish K-12 standards and benchmarks for students' college and career education (CCSS Initiative, 2010). The CCSS have been controversial and continue to be a source of contention among national, state, and local stakeholders. The CCSS were created to make sure that all students in the United States graduate high school prepared for college or a career. Additionally, the CCSS were formed based on research that measured the college and career readiness of students across America. Before the CCSS, states created and assessed their standards. Research has also shown that the CCSS are more rigorous than most pre-common state standards. Friedberg et al. (2018) stated that the CCSS have improved the quality of state standards, as some were previously written poorly and bursting with uncertain ideas.

To continually improve the CCSS, in 2020, the Next Science Generation Standards (NGSS) were updated, as well as the College, Career, and Civic (C3) Life Framework for Social Studies State Standards. These standards identify what students need to know in each subject area according to grade level. Before the CCSS, a small number of state standards covered the need to address the many issues of reading expository material in different disciplines (Kamil, 2016). The introduction of the CCSS afforded an opportunity for educators to reframe instruction to promote disciplinary literacy in social studies, science, and math (Dyches & Gunderson, 2020; Kamil, 2016).

While the CCSS provide a blueprint for what students should know and be able to do to be college- and career-ready, they do not tell teachers how to teach the material. Text complexity and disciplinary literacy are two areas that require teachers to assess and possibly change their instructional methods (Capotosto & Reardon, 2023; Davies et al., 2022; Dyches & Gunderson, 2020; Kamil, 2016; LaDuke et al., 2016). The integration of literacy strategies is imperative if students are to continue to make progress in the area of reading across all disciplinary texts.

The days of literacy strategies only being incorporated in language arts classes are long gone. Instruction in reading, writing, speaking, and listening is a shared responsibility within the school (Capotosto & Reardon, 2023; CCSS Initiative, 2010; Lent & Voight, 2019). The CCSS support the assertion that literacy differs across the disciplines and provides teachers with a blueprint of the literacy skills students need to be college- and career-ready. If educators want to successfully meet the needs of all the learners present in their classrooms, they must start by making sure they address the students' literacy needs. Addressing students' literacy needs starts with each disciplinary teacher identifying the role that vocabulary, writing, and questioning play in understanding the content itself (Capotosto & Reardon, 2023; Davies et al., 2022; Laureate Education, 2014; Wolsey et al., 2019).

### ***Literacy and Academic Achievement***

Academic achievement can be defined as a gauge of learners' performance, which comes before educational activities in the process of school evaluation (Engin, 2020). Academic achievement is measured in most school settings by the grades students receive

at the end of the assessment activities. One may infer that academic achievement is the learners' performance in different disciplines. Academic achievement is often categorized into three categories: low, average, and high achievement (Bachore, 2022). Low achievement can be defined as below grade level, and average performance can be defined as on grade level. Lastly, students who are high achievers perform above grade-level standard expectations (Bachore, 2022; Maganga, 2016).

There are many factors that impact students' academic achievement. Brew et al. (2021) stated that parents' education level and income, teachers' knowledge of the subject, truancy, textbook availability and accessibility, libraries, practical laboratory, meal provision, and many other factors can impact students' academic achievement. Similarly, Bronfenbrenner (1979, 1986), in his theory of ecological development, divided the factors into microsystems, mesosystems, exosystems, and macrosystem levels. Based on Bronfenbrenner's theory, Clark and Teravainen (2017) and Muhammad et al. (2021) found that microsystem factors, which comprise literacy skills, is one thing that has an impact on student achievement. Clark and Teravainen and Muhammad et al. found that when teachers instill a passion for reading in their students, student achievement, as well as comprehension and reading frequency, increases in students.

Lauterbach et al. (2021) noted that students need to practice reading to develop their phonemic awareness, phonics, fluency, vocabulary, and comprehension. Lauterbach et al. also stated that the mastery of these skills allows students access to increasingly complex knowledge in other academic subject areas. Dyches and Gunderson (2020) found that learners are now exposed to more information that requires reading, writing,

and synthesizing and that they rely on their reading and writing abilities in every area of their academic and nonacademic life. The requirement for students to read, comprehend, evaluate, and reflect on complex information has never been greater than it is currently (Bachore, 2022).

### ***Content Area Literacy***

Niles (1965) stated that a vital principle of content area reading has been that in secondary schools, reading should be taught primarily in the subject fields with conventional content materials and regular daily lessons. Content area reading focuses on strategies students can use to improve their understanding of the informational texts read in their content area classes (Mraz et al., 2009; Pule, 2020). In 2013, Shanahan found that disciplinary teachers view reading tasks as alike across the disciplines. With this viewpoint, students may develop a toolbox of strategies that can be used, no matter the subject area, to help them with comprehension (Hynd-Shanahan, 2013; Pule, 2020; Shanahan & Shanahan, 2019). Content area reading strategies can be systematized into what teachers and readers should do before, during, and after reading to better understand an informational text, such as the history textbook, primary source document, or trade book (Fisher & Frey, 2014; Vacca et al., 2017, 2020). Shanahan (2020) suggested that literacy is more than reading. The strategies must include students making meaning and learning the vocabulary of each subject and learning to display the knowledge in writing and assessments.

Discipline-area literacy is embedded in the expectations of the CCSS. The CCSS ELA standards are separated into two categories, reading: literature and reading:

informational text in acknowledgement of the different skills needed to read in content areas (CCSS Initiative, 2015). Teaching students to use comprehension strategies before, during, and after reading is beneficial for all students and particularly helpful for students struggling with reading (Lauterbach et al., 2021; Lesley et al., 2023). These strategies ensure that students have the scaffolding needed to comprehend challenging texts (Accurso & Gebhard, 2021; Hayden & Eades-Baird, 2020; LaDuke et al., 2016). However, disciplinary literacy encompasses a great deal more than reading, adding an active learner element to rote reading lessons.

### ***Literacy in the Disciplines***

Although disciplinary literacy is a different concept from content area reading, its meaning has been confused to a great extent by those who wrongly use the terms interchangeably or who think that disciplinary literacy is just a new name for content area literacy. Whereas the content area reading perspective suggests that the reading process is the same across all content areas, disciplinary literacy focuses on the aspects of reading and writing that are specific to each discipline. In secondary school, students are asked to work with texts outside of basic comprehension. Disciplinary literacy helps teachers with scaffolding and designing literacy activities, which in turn helps teachers to identify things specific to literacy in their respective disciplines (Davies et al., 2022; Marlatt, 2018). Disciplinary literacy acknowledges that reading, writing, thinking, reasoning, and doing in each discipline is distinctive (Accurso & Gebhard, 2021; Lent, 2016; Lesley et al., 2023; Spires et al., 2021). Disciplinary literacy also asserts that disciplinary area teachers are masters of their discipline's literacy requirements and have a responsibility

to share with students how to read, write, speak, listen, research, and think like experts in their subject areas (International Literacy Association, 2015; Lesley et al., 2023; Marlatt, 2018; Spires et al., 2021).

Disciplinary literacy is essential to learning in content areas because it helps students come to know how reading, writing, speaking, and thinking function in each discipline. Moreover, The National Council of Teachers of English (NCTE, 2019, 2020) states that when teachers integrate disciplinary literacy strategies in their classes, they provide students with an opportunity to construct generative ideas, engage in self-discovery, and explore the practice of empathy as they interact with their subject-specific texts. Disciplinary literacy also allows students to gather multiple perspectives about the role of literacy, which will be beneficial to them in college and career (Lent, 2016). Goldman et al. (2016) found that most students do not progress much beyond basic reading and math skills on national and international assessments. Additionally, Goldman et al. stated that between the ages of 12 and 18, students are expected to use reading as a significant vehicle for learning across content areas. However, the vast similarities and differences among disciplines concerning how knowledge is constructed, represented, and communicated are not often taught in content area instruction. Consequently, students are then left to figure out on their own that the same rule does not apply across content areas. Comparing history and science, Hynd-Shanahan (2013) stated that a reader may make a timeline to understand the relationship among events in history if the text being read presented it, but would not make a timeline to learn an explanation of a scientific principle.



Students may benefit from understanding that sentences about historical events interpret the time, the place, and the manner in which things occur, and they interpret the actors, their motivations, and their goals. Science reading involves, to a greater extent than other subject areas, the requirement of translating explanations to models, diagrams, or formulas. Disciplinary teachers must understand that disciplinary literacy asks them to show students how to use discipline-specific literacy skills as tools to access discipline-specific content and integrate reading strategies when appropriate within the structure of the discipline (Accurso & Gebhard, 2021; Davies et al., 2022; Lent, 2016). Researchers have found that incorporating disciplinary literacy increases reading comprehension, builds conceptual knowledge, and fosters critical thinking skills (Graham et al., 2020; Holloway, 2021). The CCSS Grade 6 through Grade 12 standards for the disciplines show the disciplinary literacy perspective. When considering the shifts of the CCSS, the authors (CCSS Initiative, 2015) stated that the standards for literacy in history/social studies, science, and other subjects of a technical nature ensure that students can independently build knowledge in these disciplines through reading and writing.

### ***Disciplinary Literacy Instructional Shifts***

Shifting to a more literacy-based approach will require disciplinary area teachers to make instructional shifts. Teachers may need to focus less on generic reading strategies and more on discipline-specific literacy practices, provide students with a variety of texts related to disciplinary topics instead of relying on a single resource, and model the language of the discipline by reading aloud and explaining discipline-specific vocabulary (Hayden & Eades-Baird, 2020; Lent, 2016; Lent & Voight, 2019). Teachers will need to

consider how they can give students the literacy tools needed to master the content within their discipline. An example of this would be to provide students with a variety of texts related to disciplinary topics that not only respond to students' multifaceted cultural, racial, and linguistic identities, but also demonstrate skills and activities within the different disciplines (Marlatt & Barnes, 2021). It is imperative that teachers implement this practice as opposed to relying on a single resource to teach them the concepts (Hayden & Eades-Baird, 2020; Lent, 2016; Lent & Voight, 2019).

Incorporating writing within the disciplines is a great way to promote deep learning and creativity, while supporting academic, social, and emotional intelligence (Lesley et al., 2023). Disciplinary area teachers can provide opportunities for students to write something related to their content every day or allow students to engage in written discourse with each other in place of discussing content (Lent, 2016; Lent & Voight, 2019). Teachers may ask students to engage in power writing about a particular topic covered in class. In power writing, a discipline-specific word or phrase is given, and the teacher asks students to use it in their writing (Lent & Voight, 2019)

### ***Science Instructional Shifts***

The discipline of science helps students improve their understanding of and participation in the natural world around them by teaching them to ask questions about their environment, make connections between science concepts and their lives, and engage in critical thinking (Hayden & Eades-Baird, 2020; Roberts et al., 2019). In a science classroom, students need to be equipped to decipher the vocabulary required for conceptual understanding (Hunter et al., 2022; Lent, 2016). When students do not possess

a sufficient understanding of disciplinary area vocabulary, it can lead to misconceptions and gaps in their learning (Hayden & Eades-Baird, 2020; Hunter et al., 2022; Rasinski et al., 2017). In today's educational climate, students are being asked to do more than just learn a skill and take a test. Students are being asked to develop scientific understanding and to transfer their knowledge by using it to reason, problem solve, and make decisions (Forbes et al., 2020).

Integrating literacy strategies, such as close reading, think-aloud, and writing, can help science educators build their students' scientific literacy. Graham et al. (2020) and Jackson (2016) found that employing the think-aloud strategy during science instruction greatly increased students' understanding of science text. Graham et al. also found that when students were required to complete a writing-to-learn activity as a part of their science instruction, their learning deepened. Writing in science will look different from writing in math, social studies, and even ELA. Scientific writing may include observations that could be descriptions of natural phenomena or the exploration of problems with no definite solution (Hunter et al., 2022; Lent, 2016). Lent (2016) found that the practice of writing has the potential to increase the brain's absorption, processing, retaining, and retrieving of information, which may help enhance a student's scientific knowledge.

### ***Social Studies Instructional Shifts***

Literacy, specifically reading within the social studies discipline, requires students to read and analyze various sources in discipline-specific ways (Kern & Bean, 2018; Shreiner & Zwart, 2020). It is important to note, when students read in history, the

required skills may change with the event or account, so reading within this discipline demands practice and awareness (Lee et al., 2022; Lent, 2016). Within the social studies discipline, students may be asked to compare and contrast events, think sequentially to piece together timelines and make inferences, and determine what is important from what is simply interesting (Lee et al., 2022; Lent, 2016). Teachers will need to consider how they may provide students with the literacy tools required to master the discipline's content. In the discipline of social studies, there is no one way of writing because the topics and genres are so diverse (Lent, 2016). To support writing in social studies, teachers can ask students to complete a response journal or even summarize and synthesize events from multiple sources (Hughes, 2022; Lent, 2016). These strategies will help support students' deep learning in the social studies classroom.

### ***Mathematics Instructional Shifts***

In a mathematics classroom, literacy will look much different than it does in any other discipline. Mathematical literacy may involve relationships and patterns and demonstration of understanding through visuals or abstract representations (Fang & Chapman, 2020; Lent, 2016). In a math classroom, the teacher can have students to use the information they read to solve mathematical problems. When integrating literacy strategies, it is imperative that the teacher uses the strategies that will maximize students' understanding of the mathematical concept being taught. In mathematics, students often read mathematical word problems devoid of understanding what is included and what is required in problem solving (Ediger, 2018; Frambaugh-Kritzer & Buelow, 2022). Prompting students to reread word problems may provide needed information, but it is

imperative for them to understand what is being asked of them. Close reading in the mathematics classroom can provide students with needed information when solving word problems. It helps students to access and use background information related to the content area, which in turn can help them effectively comprehend math content (Ediger, 2018; Fang & Chapman, 2020).

Fang and Chapman (2020) found that when students write in math, they deepen conceptual understandings. While writing in math may look different from any other content area, it helps students deepen their learning. Math teachers can incorporate writing in their classrooms by requiring students to produce paragraphs that explain procedures or solutions to a problem (Fang & Chapman, 2020) or respond to a pre-writing question prompt about a particular math concept (Fang & Chapman, 2020; Frambaugh-Kritzer & Buelow, 2022; Lent, 2016). Writing vocabulary on the board could help students make connections by relating abstract words and sentences in a math problem and help to increase their understanding (Ediger, 2018).

### ***Disciplinary Literacy and English Language Learners***

Disciplinary literacy asks that content teachers expand their focus to see themselves not only as content experts, but as disciplinary literacy teachers who engage and model for students how to demonstrate the components of literacy (reading, writing, speaking, and listening) like experts within their specific disciplines (Ammar et al., 2021; Lou, 2020; Schall-Leckrone, 2022). This becomes a multi-layered task when a disciplinary teacher is asked to support the unique needs of the learners present in their classrooms. When a disciplinary teacher has English language learners (ELLs) in their

classroom, the instructional shifts they will need to make will be more comprehensive.

Cummins (1981) found that on average it takes ELL students 5 years to reach the same level as their primary English-speaking peers. To close this gap, disciplinary teachers need to make instructional shifts to help students catch up in core knowledge.

Incorporating vocabulary practice, reading, and writing will help ELL students catch up in the areas where they fall short in their content knowledge (Ammar et al., 2021; Schall-Leckrone, 2022).

When supporting ELLs, teachers need to explicitly teach vocabulary, as it serves as the foundation of all the other components of language acquisition and impacts academic success (Lou, 2020; Schall-Leckrone, 2022). Using context clues to interpret the meaning of unknown words is a well-known practice that teachers use to help their students to learn new vocabulary. However, when supporting ELL students, teachers must understand this is not a method that ELLs can rely on for vocabulary improvement (Lou, 2020). In classes such as math and science, students may encounter words with nonvernacular meanings (mean, domain, mitosis, meiosis; Ammar et al., 2021; Schall-Leckrone, 2022). Knowing the general definition of words, such as illustrate, compare, and sketch, will not help a student in a math class where these words have specific definitions and requirements. Researchers found that math teachers must explicitly teach and facilitate fluency in math vocabulary before asking students to apply the language of math effectively and with purpose (Ammar et al., 2021; Schall-Leckrone, 2022).

Teaching ELLs word structures (prefixes, suffixes, root words) will help bridge those linguistic gaps and specific content. Teachers can do this by exposing students to

and teaching them commonly used prefixes, suffixes and roots within each discipline and then modeling for them the act of decoding the definition of unfamiliar vocabulary by deconstructing into component morphemes (Ammar et al., 2021; Lou, 2020; Schall-Leckrone, 2022). Ammar et al. (2021) and Schall-Leckrone (2022) found that adolescent ELL students benefited from targeted instructions on morphemic analysis strategies. These strategies would be beneficial in the discipline of science, as many terms used in science often have Latin or Greek roots (Ammar et al., 2021; Lou, 2020). The use of word walls in conjunction with a list of common prefixes, suffixes and roots shifts some of the onus on the ELL students and helps them to become invested in their learning (Lou, 2020).

As education continues to require more from teachers in response to meeting their students' needs, it is imperative that teachers shift their mindsets to understand that it requires all disciplinary teachers to teach literacy to students (Lou, 2020).

### ***Teacher Perceptions***

When considering instructional shifts that disciplinary teachers have to make, it is imperative that teachers' perspectives are taken into consideration. It can be life changing for students when teachers across the disciplines view literacy as an empowerment tool that is connected to lived and shared experiences (Muhammad, 2020). At the secondary level, a change takes place in reference to the way that the content is provided to students. Primary school teachers are often tasked with teaching all subjects, whereas secondary teachers are usually certified in one or two content areas. This means that secondary teachers' instructional planning is focused more on content-specific materials and not the

incorporation of interdisciplinary instruction, which includes literacy instruction (Smith & Robinson, 2020). Osman and Warner (2020) found that teachers' willingness to integrate other content area skills in their instruction is greatly influenced due to the difference in training.

Smith and Robinson (2020) found that teachers' beliefs impact their willingness to embrace literacy instruction. Comparatively, Summers (1977) found that people's views toward reading affect their ability to consider literacy practices and their willingness to practice literacy behaviors. When asking secondary disciplinary teachers to integrate literacy in their instruction, it is vital to note that teachers' perspectives are malleable, particularly when younger teachers close the gaps in knowledge between literacy theory and practice (Smith & Robinson, 2020). Lee et al. (2021) conducted a study with social studies teachers and their perspectives of disciplinary literacy instruction. The study found that when collaborating with other disciplinary teachers, literacy teachers, and other social studies teachers, the social studies teachers felt that it was useful when building professional and instructional knowledge (Lee et al., 2021). These findings show that when provided access to tools and resources, such as collaborating with their colleagues, disciplinary teachers can build their knowledge regarding integrating literacy strategies in their instruction.

### **Differences Between Content Area Literacy and Disciplinary Literacy**

Content area literacy focuses on study skills that educators may use to assist students' learning processes when interacting with subject matter specific texts (Hynd-Shanahan, 2013; LaDuke et al., 2016). In comparison, disciplinary literacy centers on the



knowledge and skills that discipline-specific experts possess. The difference is that content literacy highlights techniques that a beginner might use to understand a disciplinary text (such as, how to study a history book for an examination); disciplinary literacy is centered around the discipline-specific tools experts in a discipline use to engage in the work of that discipline (Shanahan & Shanahan, 2012). The major argument of content area reading proponents is that the cognitive requirements of learning and understanding any kind of text are the same, regardless of subject matter (Shanahan & Shanahan, 2012). Content area reading treats content differences as the major distinction among the disciplines. While content area supporters may acknowledge that one reads about mathematics in a mathematics book and history in a history book, they insist that what is required is that readers be provided with a common set of reading strategies that could be applied, with some slight modifications, to wide-ranging content area texts (Shanahan & Shanahan, 2012).

### **Implications**

Researchers studied the impact of incorporating literacy strategies and found that incorporating disciplinary literacy increases reading comprehension, builds conceptual knowledge, and fosters critical thinking skills, which in turn leads to literacy-proficient, college- and career-ready students (Davies et al., 2022). While disciplinary literacy is built into the Georgia state standards, disciplinary teachers are struggling to incorporate literacy instruction into their classes (Davies et al., 2022; Hinchman & O'Brien, 2019). Disciplinary teachers are concerned about the pacing of their classes, their knowledge base/preparation, and professional development opportunities when implementing

literacy strategies in their classrooms (Doubet & Southall, 2018; Hass, 2019). The study site, an urban middle school in a large city in a Southern state, has not specifically examined disciplinary teachers' ability to effectively integrate literacy strategies recommended by evidence-based research to support the literacy instruction of all the students in their classrooms (Curriculum Action Team meetings, personal communication, August 16, 2020).

This qualitative study may provide more information about the struggles disciplinary teachers face when implementing disciplinary literacy practices to meet the demands of the standards and to improve student outcomes on state assessments. Results of this study may be used by researchers and the study site's administrators in developing effective professional development to support teachers as they work to integrate literacy strategies to improve their students' reading outcomes on state assessments and their literacy proficiency. Providing secondary disciplinary teachers with additional professional development and resources will benefit and meet the needs of all students. This benefit may result in an increase in teacher confidence, since researchers have shown that after receiving professional development on reading strategies for their disciplines, more teachers integrated disciplinary literacy strategies (Paul, 2018; Shanahan & Shanahan, 2014b; Yang et al., 2020).

### **Summary**

By examining the challenges that disciplinary teachers face, in this basic qualitative study, I explored how disciplinary teachers integrate literacy strategies in their classes and the challenges they are having. While the benefits of integrating literacy

strategy practices in the disciplines have been studied, there is insufficient literature that addresses this relationship regarding the disciplinary teachers at the study site. The study site's administrators have not examined disciplinary teachers' integration of literacy instructional practices for meeting the demands of the Georgia state standards.

Section 2 focuses on the methodology used to conduct this project study. It provides information regarding the study's qualitative design, the participants, the data collection and analysis, and the limitations of this study. Section 2 also presents a rationale for the chosen research design and data collection and analysis methods. Findings from the data are also discussed in Section 2.

## Section 2: The Methodology

### **Research Design and Approach**

The purpose of this basic qualitative study was to investigate how secondary disciplinary teachers are integrating literacy strategies into their instructional plans. In this section, I explain my research design and rationale, my role as a researcher, and my methodology. In the discussion of my methodology, I describe my participant selection, the instrumentation, procedures for recruitment, participation, data collection, and data analysis. I also explain the trustworthiness and ethical procedures of my qualitative study.

I used a basic qualitative research design for my study because it directly answered the research questions to gather insights to perceptions that are not clearly defined or understood (Danford, 2023; Edwards, 2020; Johnson & Onwuegbuzie, 2004; Merriam & Tisdell, 2016). It is significant to explore these perceptions as a qualitative study to understand how to support disciplinary teachers as they integrate literacy strategies into their instructional plans. Qualitative research provides greater depth to problems or social gaps within a field of study, as it may do within this study (Castell et al., 2022).

Quantitative research is a formal, objective, methodical research approach to process and explain variables, test their similarities, and explore cause and effect connections between the variables (Bloomfield & Fisher, 2019; Burns et al., 2015). Additionally, quantitative research yields numerical data and is mostly informed by a positivist approach, realizing that to be objective requires setting aside biases and beliefs. Quantitative methodology may also use a post-positivist model that considers objectivity

is impossible because of the effects of personal biases (Davies & Fisher, 2018).

Bloomfield and Fisher (2019) stated that quantitative research tests assumptions about the relationship between dependent and independent variables. When using a quantitative research design, the researcher relies on probability and inferencing to address the vagueness that drives the research (Edwards, 2020; Ellis & Hart, 2023). Employing a quantitative research design would not allow me to achieve results related to the phenomenon being studied.

A mixed-method research design combines both quantitative and qualitative components. Dawadi et al. (2021) suggest that before using a mixed methods research design, the researcher must first decide whether they want to work mainly within one dominant approach and whether they want to complete the phases simultaneously or consecutively. Johnson and Onwuegbuzie (2004) agree. Using a mixed methods approach also requires that the research questions be written so that both quantitative and qualitative outcomes can be yielded. A disadvantage to using this type of research design is that it can be challenging for one researcher to handle the qualitative and quantitative aspects of the design and could call for the assembly of a research team (Almalki, 2017; Dawadi et al., 2021; Johnson & Onwuegbuzie, 2004).

While qualitative research concentrates on the ontological side of research induction, quantitative research focuses on conclusions derived from numerical findings, making it difficult to interpret the result of the study (Almalki, 2017; Dawadi et al., 2021; Johnson & Onwuegbuzie, 2004). Using a mixed methods design would not allow me to describe, in extensive detail, the phenomenon in its natural setting (Almalki, 2017;

Dawadi et al., 2021; Johnson & Onwuegbuzie, 2004) Studying this phenomenon qualitatively allows me to observe it in the context/natural setting in which it takes place—the classroom. As qualitative researchers understand people in their natural settings, they embrace multiple realities and truths, including their own and those of the participants (Danford, 2023; Ellis & Hart, 2023; Ravitch & Carl, 2021). Qualitative researchers use participants' experiences and perceptions in real-life contexts to generate research outcomes (Ellis & Hart, 2023).

Upon reviewing additional qualitative research designs, I found that none aligned with my study. I did not use the grounded theory because my study did not center on obtaining or developing a theory based on the participants' opinions and comparing data (Castell et al., 2022; Creswell, 2012; Creswell & Poth, 2018). The study did not collect participants' stories, which rules out the narrative design (Creswell & Poth, 2018; Lodico et al., 2010; Tomaszewski et al., 2020).

I did not use the ethnography design because I did not seek to examine cultural groups in natural settings over time (Creswell & Poth, 2018; Lodico et al., 2010; Tomaszewski et al., 2020). I did not use a case study design because it focuses on an individual or group for a detailed description and study and requires a complete investigation process of the individual or group. This approach would not have been appropriate to understand the barriers/challenges the teachers faced (Castell et al., 2022; Lodico et al., 2010; Merriam & Grenier, 2019; Merriam & Tisdell, 2015). Lastly, a phenomenological research design was not used because it focuses on the central meaning of the lived experiences of individuals and their interpretation of the world

instead of the perspectives of a group (Merriam & Tisdell, 2015; Tomaszewski et al., 2020). I selected a basic qualitative design because I am interested in participants' answers and research discoveries (Merriam & Tisdell, 2015; Tomaszewski et al., 2020).

In a basic qualitative study design, interviews are conducted, data are collected and coded, and results are interpreted (Creswell & Poth, 2018; Merriam & Tisdell, 2015; Tomaszewski et al., 2020). I used an interview protocol to interview teachers and compile themes regarding how they integrate literacy strategies into their disciplines. The research questions I sought to answer through a qualitative approach were as follows:

RQ1: How are disciplinary teachers using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments?

RQ2: How do disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments?

The central phenomenon of this qualitative study is how disciplinary teachers integrate literacy strategies into their instructional plans. The CCSS allowed educators to reframe instruction to promote disciplinary literacy in social studies, science, and math (But, 2020; Kamil, 2016). The conceptual framework of the study is used as a foundation to explore and interpret key parts of the study (Ravitch & Carl, 2021).

In this basic qualitative design, I used semistructured interviews to understand how secondary disciplinary teachers integrate literacy strategies into their instructional plans. A basic qualitative design approach allowed me to interview participants and

compile first-hand knowledge from disciplinary teachers. Once the knowledge was compiled, I then interpreted and analyzed the data (Ravitch & Carl, 2021; 2016; Rubin & Rubin, 2012).

### **Role of the Researcher**

A researcher's main goal should be to protect privacy, minimize harm, and respect the shared experience of others (their participants). While all qualitative researchers change the names of their participants to protect their privacy, this practice alone is not good enough to disguise a patient's identity (Morse, 2020; Morse & Coulehan, 2015). Protecting the participants' privacy can sometimes mean that a researcher must protect their participants by changing how they present their data or results (Ravitch & Carl, 2021). As a researcher, it is imperative that I remember that while ethical codes inform actions, communication with research participants is what makes the study ethical (Glesne, 2016; Lavee & Itzchakov, 2023). Actions such as framing the research in language that does not explicitly or implicitly create a sense of pressure or coercion to engage in the research and avoiding deceptive forms of research and/or deliberately misleading participants about the purposes and goals of the study or how the data will be used are ways to ensure that harm to participants is minimized (Ravitch & Carl, 2021).

Ravitch and Carl (2021) stated that reflexivity includes acknowledging how you, as the researcher, impact the questions asked, methods used, and data collected. When conducting a qualitative study, researchers must acknowledge their relationship of self



and roles to the study topic, setting, and/or goals (Ravitch & Carl, 2021). My role in this study is to collect, code, and analyze the data and present the study findings.

The participants in the study are secondary disciplinary teachers at a local Southern middle school. The school has a staff of 45 disciplinary teachers. While I did not have a personal relationship with these teachers, I did have a professional relationship with them because the same school district employs both the teachers and me. I did not have a supervisory or leadership role with the teachers.

As a special education teacher, I have been trained to teach several subjects. I have taught social studies, science, math, and language arts. I have also been trained to integrate literacy strategies into my instructional plans, regardless of the subject I am teaching. Older teachers, or those who may have received their education in a different state, may not have had the same training or college preparation I have had. I acknowledge this and will avoid any possible bias by taking extra steps to ensure that the bias is addressed.

## **Methodology**

### **Participant Selection**

The study site school is in the southeastern region of Georgia. Approximately 1,258 students are enrolled at the school of study. According to the 2020 school's Local School Improvement Plan, the student population was diverse, with 89% minority population, 69% economically disadvantaged as determined by free and reduced lunch qualification, and 10% ELL population. For this study, I used a representative sample of participants from the school of study, which included teachers of minority, economically

disadvantaged, ELL, special education, and gifted students. Creswell (2018) noted that a representative sample includes participants characteristic of the population being studied. There are 45 disciplinary teachers in the school. I invited all 45 disciplinary teachers to participate in the study. Inviting all 45 teachers increased the potential number of participants and the generalizability of the results. The criteria I used to select participants for this study included two teachers who teach connections classes, two teachers who teach science, two teachers who teach math, two teachers who teach special education students, and two teachers who teach social studies. This sample of teachers allowed me to truly explore the literacy instructional practices used by teachers who teach a representative sample of the whole school population.

To conduct my research, I sought permission from Walden University's Institutional Review Board (IRB). To use teacher participants, I completed a request, as required by the school district, to conduct a research study. I also contacted the school administrator to notify her of the study, and I emailed potential participants to solicit volunteers. I only used district email addresses to notify participants of the study. I asked possible participants to respond within 1 week if they were willing to participate. I then sent an email to gather the willing participants' personal email addresses and schedule a time to interview and observe each participant. Once I received emails from willing participants, I then changed my communication approach and used the participants' personal email addresses. I used my Walden University email address when communicating with the participants.

After a week had passed since the delivery of my initial email, and I received confirmation from potential volunteers, I followed up with a second email. The second email contained a packet that included a consent form with detailed information about the study, including what is required of the participants and their rights. I also asked participants to choose from several dates and times for an interview and observation. From the willing participant pool, I selected a purposeful sample to interview.

Purposeful sampling is a procedure used in qualitative research where the researcher intentionally selects participants and sites to study to learn about a specific phenomenon (Creswell, 2018). Using a purposeful sample ensured that the whole population of the study site was represented. As I stated earlier, I selected two teachers who teach connections classes, two teachers who teach science, two teachers who teach math, two teachers who teach special education, and two teachers who teach social studies. This sample of teachers allowed me to take a closer look at the literacy instructional practices used by teachers who teach a representative sample of the school population. Interviews took place off campus in a private location; 1 hour was allotted for each interview. To maintain confidentiality, I assigned a letter to each participant and used that letter to distinguish each participant's interview data.

### **Data Collection**

I used face-to-face, semistructured interviews and instructional observations to gather data regarding the disciplinary teachers' integration of literacy strategies in their subject areas. I audio-recorded lessons and interviews to ensure that my coding was accurate. When I presented my findings, I used tables to help increase the trustworthiness

of the data I collected. Cloutier and Ravasi (2021) found that the use of tables in qualitative research increase transparency concerning data collection, data analysis, and results. Tables also help the researcher arrange and analyze data effectively. I am confident that the use of these strategies helped to produce quality research with reliable and valid results.

### **Data Collection Instrument**

Ravitch and Carl (2021) reported that qualitative interviews provide deep, individualized, and contextualized data that are important to qualitative research. Qualitative interviews allow you to dive into each person's experience and to connect those to other participants' experiences so you can come to understand a wide range of perspectives and experiences about a particular topic or phenomenon (Ravitch & Carl, 2021). The use of interviews as a data collection tool ensured that I accurately captured participants' experiences and perspectives concerning the topic of study. I used face-to-face, semistructured interviews to collect data. Using face-to-face interviews increased the possibility of a high response rate. Researchers have found that the response rate and cooperation increase when the researcher establishes a friendly rapport with participants (Ravitch & Carl, 2021; Yin 2014, 2017). In a semistructured interview, the researcher poses guiding questions. During a semistructured interview, the researcher has the autonomy to adjust the wording of questions, omit questions that may become redundant, or change the order of the questions (Lodico et al., 2010; Ravitch & Carl, 2021). Semistructured interviews allow a researcher to begin questioning the participant by using previously planned questions and allows the researcher the flexibility to explore

unexpected themes that may arise during the interview (Lodico et al., 2010; Ravitch & Carl, 2021). This setup provided me with an opportunity to begin the interview with questions that provided me with data to address my research questions and allowed me to explore new themes that emerged during the interview process.

### **Data Analysis**

When conducting qualitative research, it is imperative to take steps that will ensure the study's validity (trustworthiness) and reliability. To guarantee the quality, trustworthiness, and credibility of my qualitative research, I took additional steps to ensure that my chosen method of data collection allowed me to answer the specific research questions (Burkholder et al., 2019). Researchers suggest the use of prolonged engagement, persistent observation, and member checks as ways to increase credibility (Korstjens & Moser, 2018; Mays & Pope 2020). To increase dependability and confirmability, I used an audit trail and member checking. An audit trail asks the researcher to transparently describe the research steps taken from the start of a study to the development and report of the findings (Korstjens & Moser, 2018; Mays & Pope, 2020). Member checking requires the researcher to follow up with the participants in the study to confirm that the data were interpreted precisely, or to see if the participants have any additional comments (Ravitch & Carl, 2021).

After member checking, I began to code the interviews to analyze the data. In qualitative research, codes are labels that can be used (by a process called coding) to organize data into manageable pieces. Coding is referred to as the vital tie concerning data collection and the explanation of its meaning (Ravitch & Carl, 2021). Researchers

use coding to find, group, and categorize various pieces of data as they relate to the research questions, findings, constructs, and/or themes across the data set (Ravitch & Carl, 2021; Saldaña, 2021). Coding in qualitative research is often a word or short phrase that provides a snapshot of a portion of data. During the first cycle of coding, a single word or even a whole paragraph may be used (Saldaña, 2016, 2021)

Open coding is the first step in the coding process. It takes the raw data from the transcripts and identifies those emerging codes (Blair, 2015; Saldaña, 2021). It is the researcher's first engagement with the data and helps to open the researcher's eyes to different theoretical possibilities. Axial coding is the next step after open coding and was completed in the second coding cycle. Axial coding provides an opportunity for the researcher to make connections between the emergent codes identified from open coding. Analyzing the data for patterns and categorizing them helped me, as a qualitative researcher, offer an explanation as to why the patterns exist (Bernard et al., 2018; Saldaña, 2021).

The second cycle of coding may yield similar lengths of codes or produce even longer codes. The second cycle of coding is when the researcher synthesizes the codes from the first cycle of coding (Saldaña, 2016, 2021; Saldaña & Omasta, 2021). It is also possible that during the second cycle of coding, the researcher may change previous coding done in the first cycle (Saldaña, 2016, 2021; Saldaña & Omasta, 2021). While I completed the coding process, I used open coding and axial coding.

After categorizing the data, I searched for themes. A theme is a lengthy phrase or sentence that tells what a unit of data is about and/or what it means (Saldaña, 2016,

2021). Identifying themes in my data provided me with an understanding of what the data meant. When I completed my third round of coding, I used selective coding, where I used the axes that emerged during axial coding and linked them together around one category. As I began my coding cycles, I did not find that one form of coding worked best for my study focus over another, as some codes attributed more evocative meanings to the data (Saldaña, 2016, 2021). It was imperative that I remained flexible, as coding is not an exact science but essentially an interpretive and iterative act (Saldaña, 2016, 2021).

In this basic, qualitative study, I explored how secondary disciplinary teachers integrate literacy strategies to improve reading outcomes on state assessments. The two research questions I used to guide this study were: RQ1: How are disciplinary teachers using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments? and RQ2: How do disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments? The knowledge gained from this study may result in an increase in teacher confidence, since researchers have shown that after receiving professional development on reading strategies for their disciplines, more teachers integrated disciplinary literacy strategies (Davies et al., 2022; Howell et al., 2021; International Literacy Association, 2020; Osman & Warner, 2020; Paul, 2018; Shanahan & Shanahan, 2014b; Yang et al., 2020). It may also increase students' self-efficacy skills. Colwell et al.'s (2021) research suggests that effective literacy instruction builds self-efficacy in adolescents regarding academic

skills and may foster more participation in a disciplinary culture and shape skills required of involved citizens.

The section on data collection includes an overview of the number of participants, location, frequency, and duration of data collection, and the instruments used to collect data to describe data collection. The section on data analysis includes an overview of data coding and specific codes, categories, and themes. The study's results include discussion of each research question and how they relate to the study by using data and tables to support and illustrate the findings. The section on trustworthiness includes discussion of the strategies I used to ensure the research's credibility, transferability, dependability, and confirmability. Lastly, the summary is an overview of the answers to the research questions to describe the findings.

### **Setting**

I used semistructured interviews and gave the participants the option of a face-to-face interview or a phone interview. All 10 participants opted to participate via Zoom. During all 10 interviews, I was in a secluded space with only myself present. Seven of the participants were alone in their classrooms during after-school hours during the interviews. Three participants were alone in a private room in their homes during the interview. I did not use the camera feature during interviews. Before starting interviews, each participant offered their availability. I then emailed Zoom meeting links for them to join the interview. Each interview lasted no more than 1 hour. During the interviews, I was unaware of any organizational or personal conditions that would influence participants' answers or study results.



## Data Collection

This study's data collection began after IRB approval on February 28, 2024; the IRB approval will expire in February 2025. I collected data by interviewing 10 participants in a basic qualitative design to address the research questions. I sent the study invitation via email specifically targeting potential participants at the study site who met the criteria. Since all the potential participants were in the same district and study site, participants were not encouraged to share the invitation, as it would not have been appropriate for them to receive the email from multiple sources. Using purposeful sampling, a method in qualitative research where participants are deliberately selected based on specific criteria, I chose individuals who could provide valuable insights relevant to the research questions (Creswell & Poth, 2018; Guetterman et al., 2019). Through this approach, I aimed to gather focused and intentional information from individuals experienced in the topic, enhancing the study's credibility (Creswell & Poth, 2018). Potential participants initially responded to the invitation email by responding to me with their interest. Following this, I sent out informed consent forms that detailed the study's background, confirmed eligibility based on the selection criteria, and clarified their voluntary and confidential participation. Upon receiving their consent, I explained the interview process.

I used semistructured interviews to gather data regarding the disciplinary teachers' integration of literacy strategies in their subject areas. I audio-recorded all interviews using the Rev Call Recorder 4+ application. The participant interviews took place over several weeks. Before interviews began, I pressed the *record audio* option in

the Rev Call Recorder 4+ app and allowed audio of the interview session to be recorded until the interview was over and then sent a transcript of the interview to my Walden University email. I stored transcripts and audio recordings of interviews on my phone and computer for data retrieval. All interviews lasted no more than 60 minutes. This amount of time was adequate to collect data from participants and ask follow-up questions, when needed.

For this basic qualitative study, I focused on the purpose of the study and investigated how disciplinary teachers integrate literacy strategies to improve reading outcomes on state assessments. I conducted the study to explore the strategies and approaches secondary disciplinary teachers are using to choose and integrate literacy strategies in their disciplines to increase outcomes on state assessments. I used open and axial coding when analyzing the data. Open coding is taking the raw data from the transcripts and identifying those emerging codes (Blair, 2015; Saldaña, 2021). Axial coding allows the researcher to make connections between the emergent codes identified from open coding. After I read and reread the transcripts multiple times, I added notations in the margins. I used the research questions and identified how disciplinary teachers are using literacy in their specific disciplines to improve student reading achievement on state assessments and how disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments as the basis for coding, categorizing, and identifying themes.

### **Discrepant Cases**

When conducting research, it is imperative that the researcher takes additional steps to ensure that all data are validated so that discrepant cases do not occur. Ravitch and Carl (2021) define a discrepant case as findings that emerge that are contradictory to the thematic findings of a study. To minimize the occurrence of a discrepant case, I used member checking in the study. After each interview, I debriefed each participant regarding next steps in the participation process. Employing the practices of debriefing and member checking during the data collection process led to no discrepant cases being identified.

### **Results**

Utilizing a Microsoft Word document, I made lists to capture codes from the first round of coding. I titled the first list *code/label short* to capture all the initial open codes from each of the interviews. I titled the second list *code source* to identify where interviewees' specific codes came from. Lastly, I titled the third list *short definition* to define the initial code to guarantee consistency for all participants who received that code. I labeled the fourth list *example* to serve as a reference as I went back and forth during the coding process to ensure consistency with coding. I created a second word document to make connections between the first cycle of coding (open coding) and the second cycle of coding (axial coding) to the identified themes. I then categorized identified themes based on alignment with the research questions.

As I reviewed the transcripts, I created open codes to match the participant's comments. I gave each open code a definition to establish consistency throughout the interviews. Each code was also assigned a quote from one of the participants to serve as

an example throughout the coding process. The first cycle of coding (open coding) was an iterative process where I was reviewing the code and reevaluating the code definition for accuracy. Table 2 contains the codes and categories I identified in my review of the transcripts and used to identify how disciplinary teachers are using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments and how disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments.

**Table 2**

*Codes Organized into Categories*

Codes	Categories
Differentiated Texts	Implementing Disciplinary Literacy Skills
Vocabulary instruction	Instructional approaches
Peer tutor	
Context clues	Students varied reading skills and comprehension levels
Vocabulary instruction	
Mnemonic devices	
Text annotations	
Identification of key concepts	Instructional standards
Incorporating technology (Google read and write)	Vocabulary instruction strategies
Text dependent questions	
Teacher model	Technology and digital literacy
Visual representation of content	
Student reading levels	
Instructional standards	
Instructional pacing guide	
State practice tests	
DBQ'S (Document-based queries)	

These categories arose in reference to RQ1:

1. Implementing disciplinary literacy skills
2. Instructional approach

The following categories emerged in reference to RQ2:

1. Students' varied reading skills and comprehension levels
2. Instructional standards
3. Technology and digital literacy

From these categories, the following theme emerged in reference to RQ1:

1. Integrating literacy skill instruction into content area instruction

From these categories, the following themes emerged in reference to RQ2:

1. Varied student reading levels, reading skills and vocabulary
2. Instructional standards

The problem that drove this study was that middle school disciplinary teachers acknowledge they struggle to integrate literacy strategies in their specific disciplines to improve reading outcomes on state assessments. During the coding process, I used the research questions to obtain disciplinary teachers' practices when integrating literacy strategies in their specific disciplines for study and analysis.

RQ1: How are disciplinary teachers using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments?

RQ2: How do disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments?

**Table 3**

*Data Analysis Categorization and Theme Identification*

Research Question	Category	Theme
RQ1: How are disciplinary teachers using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments?	Implementing disciplinary literacy skills	Integrating previously taught literacy skills into disciplinary instruction
RQ2: How do disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments?	Students' varied reading skills and comprehension levels	Varied student reading levels, reading skills and vocabulary  Digital literacy and technology

To increase the credibility of my research, I included excerpts from participants.

In doing so, I was able to give readers an in-depth look at what participants said explicitly. Table 4 includes the themes and excerpts for RQ1.

**Table 4***RQ1 Theme 1: Integrating previously taught literacy skills into disciplinary instruction*

Participant	Excerpt
P	“It’s picking out key words understanding and then taking those words out of a narrative and putting them into a mathematical equation.”
Z	“I’ve found also that kids like to doodle and they’re doodling. So sometimes instead of taking notes, I’m like you could draw pictures. Or you can, you know, sometimes I’ll let them listen and somebody might repeat what I’ve said.”
D	“Using ELA conventions, using grammar, the grammar conventions, setting, formatting it correctly, like with the invention and the capitalization punctuation, and then they also have to include textual evidence or quotes, so they get to write the article how they want to write the article; they have to use the skills of gathering the reader’s attention, maintaining the reader’s attention. How do you fill details without always quoting exactly what it said, but also, I require them to use direct quotes, and they also have to quote it correctly. You have to quote it, direct reference it. Where did you get this from? I love the color blue quote end quote from teacher. They had to do all of that stuff. So that’s the integration of ELA.”
Y	“One thing that I emphasize a lot is critical thinking, and in order to make that happen, you have to break words down so I do prefixes and suffixes to show them. Hey these words seem difficult, but let’s break it down by the prefix and suffix so you can get a better understanding. Going back and using context clues, if you can’t figure this out, so let’s use some context clues to see what is going on. So, you can know exactly what the author is trying to say. Is this figurative language, or is it literal? Those sort of things that I use.”
C	“So, like if we’re going over a word problem, we will underline or cube or circle certain vocabulary words or phrases that mean this and that.”
W	“If I’m reading a text about Latin America, I will show them how to read, annotate and do the article and then I will show them and they will do it on their own.”
R	“As we go into the disciplinary literacy part, I might walk around the classroom and ask students, OK, what does this word mean? What does that mean? That way, you know, hit both of them at the same time, if that makes sense. So during class, while we’re doing the literacy part, I’m also reviewing the vocab as well.”
L	“Cubes. circle. So, we’re going to circle the keywords and phrases. We’re going to underline the numbers that are relevant to the question. We’re gonna box the action words and box in the question. Then E is for evaluate. So, this is where I’m going to set up the steps I need to solve the problem and then S is where I solve and check my work. So even within cubes, I can definitely see that there are some literacy strategies built in here, like with the circle and the underlining. Even the boxing right, that’s all a form of annotation.”

It was imperative for me to show excerpts from participants. In doing so, it gives readers of the study a comprehensive look at the lived experiences of participants. Table 5 and Table 6 show the themes and excerpts for RQ2.

**Table 5**

*RQ2 Theme 1: Varied student reading levels, reading skills and vocabulary, specific standard being taught*

Participant	Excerpt
P	“It’s going to heavily focused on vocabulary because with a mathematician or a math teacher have to do is to have that child be able to convert a narrative into a numerical problem to solve it and so you, you’re going to have to understand the vocabulary.”
D	“First, I would go over the vocabulary because the vocabulary for journalism is a little bit different as far as what the byline looks like, how the article is set up, what’s the article called, is this an opinion piece? Is this an editorial? Is this a news flash? Is it an interview? Because there’s different ways you can interview and do articles like that. So, we would go over the important vocabulary that are applicable to whatever article or editorial we’re writing.”
U	“I try to make sure I tie in vocabulary to all of our lessons in our unit. We usually start off with a vocabulary booklet so I can hit them with the specific keywords that we’re using within that unit, and they give me a breakdown of a picture and an example and the definition in their own words.”
C	“I kind of emphasize certain vocabulary words like what we’re hinting on, so I might, If one of the words that we were using was like inverse operations, I would capitalize all of inverse and as they’re taking notes and we see it within our question or within our answer as we’re analyzing, I’ll make sure that they highlight it or circle it and they go ahead and they’ll write, they’ll use a synonym to it so they can use their own words to remember it.”
R	“The warmup might have the vocabulary where it’s define this word, define that word.”
W	“Maybe we have a person who could come and help with struggling students.” “We work with our students to work with their Lexile scores. When I’m assigning reading, we use a program called read ELA and it helps me to find articles that can be supplemented to their Lexile reading scores. So we do a little testing at the beginning, and we find out our students Lexile scores and that helps me to tailor make their text or their articles to their Lexile scores.”



**Table 6**

*RQ2 Theme 2: Digital literacy and technology*

Participant	Excerpt
Y	<p>“I give them (ESOL students) tools to use like Google Translate and all that sort of stuff to help them manage their language and the language acquisition.”</p> <p>“I show them how to use Google Classroom and the tools in Google to highlight text and to get key information.”</p>
D	<p>“There is a whole unit that I do on social media and how social media influences journalism and stuff like that and how social media can basically ruin people’s lives if you don’t get the story correct. Then there’s a whole section on ethics where they’re given different scenarios. it gives them a scenario and it’s like, hey, you’re writing a newspaper, you’re doing a digital newspaper for your school and one of your journalists wants to include this paper, and it gives you all the things and it’s like, ok, if you’re following the code of ethics for journalists, do you use this or do you not and explain your answer.”</p>

I structured the interview questions in a way that would accurately capture participants’ experiences and that produced insightful data to understand the two research questions presented in this study:

RQ1: How are disciplinary teachers using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments?

RQ2: How do disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments?

Three themes surfaced from the data analysis and aligned with the two research questions.

**Research Question 1**

RQ1: How are disciplinary teachers using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments? This question is important because it asked how disciplinary teachers are using literacy in their disciplines. It does not ask if they are integrating literacy in their disciplines, but it explores how they are integrating it. The answers to this question provide the reader a comprehensive look at how disciplinary teachers integrate literacy in their respective disciplines. Based on the research question, one theme emerged. To answer RQ1, I asked participants to explain if they incorporated disciplinary literacy in their lessons every day and how they balanced the instruction of disciplinary literacy and content in their classes. I asked participants three questions related to RQ1. Participants gave very similar answers to the three questions asked, which yielded one theme. The theme reflects the approach disciplinary teachers use to integrate literacy strategies in their classrooms. To address RQ1, participants were asked to explain how they balance disciplinary literacy instruction and content instruction in their classrooms. The participants answered the three interview questions that addressed RQ1. I identified one theme based on the experiences of secondary disciplinary teachers and how they were integrating literacy in their classrooms.

**Research Question 2**

RQ2: How do disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments? Based on the research question, two themes emerged. This section is

organized based on the two identified themes. To answer RQ2, I asked participants to describe how they choose literacy strategies to improve the elements of their disciplines for literacy demands of their discipline-specific state assessments. I asked participants two questions related to RQ2. Participants gave slightly varied responses of their selection responses, which yielded the two themes.

### **Theme 1**

Theme 1 reflected the ways secondary disciplinary teachers select what literacy strategies to use to prepare students for the literacy demands of their discipline-specific state assessments. To address RQ2, I asked participants to describe how they determined what instructional strategies to use to meet the requirements of their discipline-specific state standards. The participants answered the three interview questions that addressed RQ2, and I identified two themes based on their select process. Nearly all participants conveyed that they choose which strategies they are going use based on student need (varied reading levels, skills, specific standard being taught and vocabulary). Participants mentioned students' needs more than any other selection strategy.

Concerning the second research question, all participants confirmed using students' needs and the specific standard being taught as a deciding factor for the strategies they integrate in a day's lesson. For example, one participant uses students' reading levels as a selection strategy, stating,

We work with our students Lexile scores. When I'm assigning reading, we use a program called read ELA and it helps me to find articles that can be supplemented to their Lexile reading scores. So, we do a little testing at the beginning, and we

find out our students Lexile scores and that helps me to tailor make their text or their articles to their Lexile scores.

Similarly, Participant Y stated “I give them (ESOL students) tools to use like Google Translate and all that sort of stuff to help them manage their language and the language acquisition.” While Participant W used their students’ reading levels to determine what text to give them during a lesson, Participant Y considered their students primary language and their ability to access instructional materials. Both teachers used student needs as a basis for their instructional strategy selection, but from two different lenses. To summarize, secondary disciplinary teachers are using their students’ needs to help improve the elements of their disciplines for the literacy demands of their discipline-specific state assessments.

## **Theme 2**

The second theme that emerged from participants’ responses to RQ2 was digital literacy and technology. However, it is important to note that only two participants discussed digital literacy as a deciding factor when choosing which instructional strategies to use to improve the elements of their disciplines for literacy demands of their discipline-specific state assessments. Technology was only mentioned in reference to addressing specific standards or meeting students’ language or learning needs. For example, Participant D stated:

There is a whole unit that I do on social media and how social media influences journalism and stuff like that and how social media can basically ruin people’s lives if you don’t get the story correct. Then there’s a whole section on ethics

where they're given different scenarios. I give them a scenario and it's like, hey, you're writing a newspaper, you're doing a digital newspaper for your school and one of your journalists wants to include this paper, and it gives you all the things and it's like, ok, if you're following the code of ethics for journalists, do you use this or do you not and explain your answer.

Comparatively, Participant Y stated, "I show them (ESOL students) how to use Google Classroom and the tools in Google to highlight text and to get key information."

In summary, while these teachers detailed using technology to help improve the elements of their disciplines for literacy demands of their discipline-specific state assessments., they had two different reasons for doing so. Participant D incorporated technology due to the standard being taught; whereas, Participant Y incorporated technology to meet the needs of the diverse learners present in the classroom.

### **Evidence of Trustworthiness, Credibility, Confirmability, and Dependability**

To guarantee the quality, trustworthiness, and credibility of my qualitative research, I took additional steps to ensure that my chosen method of data collection allowed me to answer the specific research questions (Burkholder et al., 2019).

Researchers suggest that when using prolonged engagement, persistent observation, and member check, credibility is increased (Korstjens & Moser, 2018; Mays & Pope 2020).

To increase dependability and confirmability of my research, I used audit trail and member checking. An audit trail asks the researcher to transparently describe the research steps taken from the start of a study to the development and report of the findings (Korstjens & Moser, 2018; Mays & Pope, 2020). Member checking requires the

researcher to follow back up with the participants in the study to confirm that the data were interpreted precisely, or to see if the participants have any additional comments (Ravitch & Carl, 2021). By following the methods of data collection described in the methodology section of my dissertation, I demonstrated credibility by describing the data collection process from start to finish. Additionally, using semistructured interviews allowed the reader to gain insight into how secondary disciplinary teachers integrate literacy strategies in their respective disciplines and how they select those strategies improving the elements of their disciplines for literacy demands of their discipline-specific state assessments.

### **Transferability**

To establish transferability in my study, I made sure to include details of the processes and procedures used throughout the study. I was prepared with a follow-up question during the interview process and asked clarifying questions to participants during the interview process, when needed. I asked probing questions when more descriptive answers were required from participants to encourage them to go into more detail regarding a specific response. Additionally, I used frameworks that not only help support the study but also comprehensive explanations of participants' experiences and beliefs.

### **Summary**

In this section, I presented the research study findings based on the data collection and analysis that answered the two research questions. One theme emerged from RQ1, and two themes emerged from RQ2. The following list includes all three themes:

- Theme 1: Secondary disciplinary teachers use literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments by integrating previously taught literacy skills into discipline-area instruction.
- Theme 2: Secondary disciplinary teachers use varied student reading levels, reading skills, vocabulary, and specific standard being taught to select which literacy strategies to use when improving the elements of their disciplines for literacy demands of their discipline-specific state assessments.
- Theme 3: Secondary disciplinary teachers use digital literacy and technology to select which literacy strategies to use when improving the elements of their disciplines for literacy demands of their discipline-specific state assessments.

The results of my study specified how secondary disciplinary teachers integrate literacy strategies in their discipline to help improve student reading outcomes on state assessments. Additionally, the results specified how those same teachers select the instructional strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments. Teachers incorporate literacy strategies in their disciplines by integrating previously taught literacy skills into content area instruction, and they choose which strategies to improve the elements of their disciplines for literacy demands of their discipline-specific state assessments by considering their students' varied reading levels, reading skills, vocabulary, specific standard being taught, and by considering digital literacy and technology. The participants' responses provided irreplaceable insight regarding the instructional practices

of secondary disciplinary teachers and how they increase student achievement on their discipline-specific state assessments.

The problem that drove this study was secondary disciplinary teachers at the study site acknowledged that they struggled to integrate literacy strategies in their specific disciplines to improve student reading outcomes on state assessments (Curriculum Action Team meetings, personal communication, August 16, 2020). The study found that while teachers are integrating literacy strategies, very few of them are teaching students the discipline-specific skills necessary to build an appreciation of the nature of the words and definitions on which a discipline focuses and how to use them strategically in speaking and writing as they should be (Hunter et al., 2022, 2023; Shanahan & Shanahan, 2014a; Spires et al., 2020).

Participants were asked three questions in reference to RQ1 and asked specifically how they taught their students to read, write, speak and listen like experts (scientists, mathematicians, journalists, linguists) in their specific disciplines. Only three of the 10 participants were able to give specific examples of how they teach their students the literacy skills needed for their specific disciplines and how to use them strategically in speaking and writing. Participant D stated,

Being a historian, helps a lot with journalism, as well, because it allows you to home in on the facts, which is what historians do, as well. They ask questions like what time did this happen, where did this happen and, what was the outcome.

This also helps because we need to know the facts depending on what type of



article they're writing. If you're doing a news article, we don't need the fluff. We need the facts.

Participant W stated,

We have to look geographically at a text where are they, where in the world are they geographically. We look at it politically, what are their politics, their governments. We look at religion or culture and then we also look at economics and also the human culture aspect of whatever we're teaching. We look at the lens, we put on our geographic lens, we put on our political government lens, our religion and culture lens, and we look at it holistically and historically.

Lastly, Participant L stated

A student be like I added the letter plus the number. It'll be like guys, that's not how mathematicians speak. How do we say that we have to speak using academic discourse at all times? Those are the words that you use, and then they'll be like, oh, well, we have to combine the variable with the coefficient in order. So, making sure when they speak, academic vocabulary is being used.

These findings align with Shanahan and Shanahan's (2008) assertion that disciplinary literacy is much different from ELA literacy in that disciplinary literacy entails specific strategies that embed literacy within the discipline. Additionally, it aligns with the findings that each discipline requires its own instructional model for the literacy skills required, which are known as subject-specific literacy skills (Shanahan & Shanahan, 2008; Spires et al., 2020). The findings also align with Knowles's (1980, 1984) assumption that adults gather a growing bank of experience that becomes a

resource for learning. As these teachers gain experience in their specific disciplines, their experiences as expert mathematicians, historians, journalists, scientists, and linguists help them to find ways to integrate their experiences in their instruction and teach their students the literacy skills needed to become literacy proficient in their specific disciplines. The findings indicate a need for professional development, so disciplinary teachers are adequately equipped to integrate the discipline-specific literacy skills needed to help improve student reading outcomes on state assessments and improve the elements of their disciplines for literacy demands of their discipline-specific state assessments.

## Section 3: The Project

### **Introduction**

The proposed project genre for this basic qualitative study is a 3-day professional development. This professional development will give disciplinary teachers at the study site strategies for the continuous integration of literacy into their everyday lesson plans. The proposed professional development was a result of the data collected from the semistructured interviews at the study site. One theme emerged from the data that helped answer RQ1 (How are disciplinary teachers using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments?): integrating previously taught literacy skills into discipline-area instruction. Two themes were identified from the data that answered RQ2 (How do disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments?): varied student reading levels, reading skills, and vocabulary and digital literacy and technology.

Participants were asked three interview questions in reference to RQ1 and asked specifically how they taught their students to read, write, speak, and listen like experts (scientists, mathematicians, journalists, linguists) in their specific disciplines. While the data showed that participants integrated previously taught literacy skills in their disciplines, only three were able to give specific examples of how they teach their students the literacy skills needed for their specific disciplines and how to use them

strategically in speaking and writing. These themes laid the foundation for this professional development for secondary disciplinary teachers.

This professional development has one goal, which is to enhance the pedagogical strategies of disciplinary teachers (Osman & Warner, 2020). More specifically, the goal is to equip secondary disciplinary teachers with the skills necessary to assess the skills needed and the knowledge and practices required for their specific discipline. The learning outcomes of this professional development are to provide teachers with a research-based definition of literacy and disciplinary literacy, increase their understanding of the difference between content area literacy and disciplinary literacy instructional practices, and increase their ability to plan lessons with disciplinary literacy skills integrated into it. The target audience of this professional development is secondary disciplinary teachers.

### **Project Genre**

The project genre selection of a 3-day professional development was based upon data collected from the study's participants. Data analysis revealed that only three of the 10 participants were able to articulate how they implemented literacy strategies specific to their disciplines in their daily instruction. Providing teachers with professional learning to increase their knowledge base around the integration of discipline-specific literacy strategies was the logical choice, as it would be most impactful on the teachers' practices. Choosing this project genre also assists in meeting the project's overall goal of improving the outcomes of all stakeholders involved (Angay-Crowder et al., 2021). Creating a curriculum plan could also benefit teachers and students; however, it would not also build

capacity in teachers or provide them with opportunities for collaboration in the development of their instructional plans. An evaluation report evaluates the effectiveness of a program, which would not apply in this study as a specific program was not being implemented. A policy recommendation paper suggests actions to address issues with established policies; however, it does not align with the premise of the study or the results of the data analysis. The chosen project genre is supported by the themes revealed from the analysis of the data collected during the course of the study.

### **Rationale**

The literacy demands of Georgia state assessments are increasing each year. This study indicated that disciplinary teachers are relying on students' previously taught literacy skills. Data from the study indicated that disciplinary teachers are struggling to teach their students the literacy skills needed for their specific disciplines and how to use them strategically in speaking and writing. Seven of the 10 participants could not articulate how they teach students the specific literacy skills needed for their disciplines. Data indicated that disciplinary teachers need additional support and resources to effectively integrate disciplinary literacy skills into their instruction. The proposed 3-day professional development series would provide secondary disciplinary teachers at the study site the ability to acquire strategies that could be immediately implemented. At the same time, these teachers could ask questions and receive immediate feedback. Teachers who attend the professional learning would be sent a PowerPoint and all materials used, so they have access to the strategies and resources shared.

## Review of the Literature

In this doctoral project study, I explored how secondary disciplinary teachers integrate literacy strategies to improve reading outcomes on state assessments. The gap in practice is that many disciplinary teachers are unsure of how to effectively integrate literacy strategies recommended by evidence-based researchers and writers to support the literacy instruction of all the students in their classrooms within their disciplines. This literature review focuses on the structure and themes of the project, including a discussion of professional development and disciplinary literacy instruction.

### Search Strategies

I used scholarly literature related to the findings of the study to find research articles for this literature review. ERIC, EBSCO, ProQuest, Google Scholar, Education Source, and Sage Journals are the databases I used to gather information. The search terms used to gather information were *disciplinary literacy professional development*, *professional development and disciplinary teachers*, *secondary disciplinary teachers*, *Knowles adult learning theory and teachers*, *Knowles theory of andragogy and disciplinary literacy*, *andragogy*, *professional development*, and *teacher implementation*. Journal articles were peer-reviewed literature publications from the years 2019–2024. This literature review provided a framework for the project study. This section includes discussions about (a) Knowles’s theory of adult learning as it relates to the project, (b) quality and specific professional development, and (c) acquisition and continuous utilization of disciplinary literacy strategies.

## **Conceptual Framework**

The conceptual framework that guided this project creation was Knowles's (1980, 1984) theory of adult learning (andragogy). Data from the study indicated that teachers at the study site are not well-versed in teaching their students the literacy skills needed for their specific disciplines and how to use them strategically in speaking and writing. Seven of the 10 participants could not articulate how they teach students the specific literacy skills needed for their disciplines. Knowles's theory of adult learning makes several assumptions about how adults learn and makes recommendations regarding the planning, directing, and evaluating of adults' learning (Loeng & Omwami, 2018). Knowles (1980) stated that adults have an ever-increasing reservoir of experience that is a rich resource for learning and that adults are ready to learn something when it will help them cope with real-life problems or tasks. The disciplinary teachers are considered experts in their respective disciplines and, therefore, have a reservoir of experience that can serve as a rich resource for the teaching and learning of their students. Providing disciplinary teachers with professional development will assist them in translating their reservoirs of experience in their respective fields into their instructional practices.

The second assumption that helped frame the project is the assumption that adults are ready to learn something when it will help them cope with real-life problems or tasks (Knowles, 1980, 1984). During their interviews, participants were asked if they had attended professional learning centered around literacy in their disciplines. Several of the participants stated that they were not aware of any professional learning offered that centered around teaching literacy in their disciplines, while others said no or that the

training offered did not focus on literacy; rather, it focused on content. Only two participants stated that they attended professional learning in reference to their discipline that had a literacy focus. Providing professional learning centered around disciplinary literacy has the potential to impact the disciplinary teachers' instructional practices, as it will help them cope with a real-life task (Darkenwald & Merriam, 1982). During the development of the professional learning for disciplinary teachers, it is imperative to keep in mind Knowles's theory of andragogy and the two assumptions that guide the project. This will ensure that the professional development meets the intended overall goal, which is to improve the outcomes of all stakeholders involved (Angay-Crowder et al., 2021). Additionally, it will ensure that teachers keep their respect as motivated adult learners and that the facilitators honor the adult learner's identity by being thoughtful of who they are as learners and what their expectations are for their learning needs (Pina, 2019). Table 7 demonstrates how Knowles's theory of andragogy guided the disciplinary literacy 3-day professional development for disciplinary teachers at the study site.

**Table 7**

*Application of Knowles's Theory of Andragogy to the Professional Development  
"Disciplinary Literacy: You're the Expert!"*

Knowles's Theory of Andragogy	Application
Assumption 1: Adults have an ever-increasing reservoir of experience that is rich resource for learning	Providing disciplinary teachers an opportunity to collaborate with their peers to share their knowledge while engaging in discipline-specific professional development
Assumption 2: Adults are ready to learn something when it will help them cope with real-life problems or tasks	Providing disciplinary teachers with practice-based professional development led by experts in their discipline



## **Professional Development**

The term professional development can be defined as any training with the goal of improving pedagogical strategies for educators (Osman & Warner, 2020). The goal of the 3-day professional learning for secondary disciplinary teachers is to enhance their integration of disciplinary literacy in their instructional practices. One theme that emerged from the study is that disciplinary teachers are using literacy, including reading, writing, listening, and speaking, in their specific disciplines to improve student reading achievement on state assessments by integrating students' previously taught literacy skills into their instruction. It is important to note that while teachers are integrating students' previously taught literacy skills in their instruction, it is not enough. Each discipline requires its own instructional model for the required literacy skills, known as subject-specific literacy skills (Shanahan & Shanahan, 2008; Spires et al., 2020). Professional development to improve their instructional practices specific to their needs.

Knowles's theory of andragogy is used to help understand the impact of the different professional development activities on the teachers' instructional practices. Researchers found that for professional development activities to be effectively integrated into classroom practices, teachers need to experience knowledge and skills that can be adopted into classroom practices (Ajani, 2021; Amir, 2023). Practice-based professional development is one way to ensure that the strategies provided are integrated with fidelity (Owens, 2024). Practice-based professional development provides teachers with knowledge of a new skill and an opportunity to practice the newly acquired skill (Ball & Cohen, 1999; Owens, 2024; Whatley & Smith, 2023). It provides a structured approach

to professional development focused on improving teachers' knowledge, skills, and competencies and guarantees that teachers are not treated as passive listeners in professional development (Harris et al., 2022; Owens, 2024; Pina, 2019; Thomas & Drew, 2022). With a practice-based professional development model, teachers actively engage in the process of their own learning (Pina, 2019; Thomas & Drew, 2022).

Lillge (2019) asserts that the best kind of professional development is sustained over time, is discipline-specific, and provides opportunities for collaboration among colleagues. This assertion supports Williams and Gabrion's (2022) findings where teachers identified their top barriers to implementing disciplinary literacy instruction in their classrooms was lack of time for collaboration with colleagues and lack of professional learning opportunities. Providing teachers with a 3-day professional development will provide them with a professional learning opportunity with time for collaboration with colleagues. The professional learning that will be provided to the disciplinary teachers is specific to their learning needs and has the potential to promote increased confidence in instructional planning, collaboration, and implementation (Azukas, 2019). In meeting the teachers' learning needs through targeted and research-based professional development, student achievement will be increased as teachers modify their instructional practices to provide a higher level of instruction (Ajani, 2019, 2021).

### **Disciplinary Literacy Strategies**

Disciplinary literacy transforms the role of the discipline-area teacher as a facilitator of learning that guides students toward finding their own knowing through the

investigation of several sources. Students are no longer passive recipients of content, but rather, active participants in their own learning (Cinnamon et al., 2021). Thomas and Drew (2022) assert that literacy (reading, writing, and speaking) is best taught within a discipline because it provides a natural context to learning while using language and literacy to support content understanding and improve achievement. Similarly, Cantrell (2022) suggests that students need new, discipline-specific strategies that come from the texts and methods of each discipline. Research conducted by Cantrell (2022) and Di Dimenco et al. (2018) found that disciplinary literacy may be the solution to solving secondary reading problems.

Clabough and Sheffield (2023) and Lawrence et al. (2019) argued that students' disciplinary thinking, literacy, and argumentation skills are strengthened when teachers in a social studies class use a text set made up of primary sources and trade book. Enderson and Colwell (2021) found that when students are taught how to understand the language of math, they become more engaged, and they understand it better. Similarly, researchers have argued that a focus on discipline-specific ways of reading, writing, thinking, and communicating is the key to developing literacy for all students across all grades and all schools (Fang & Robertson, 2020; Ippolito, 2021). Younger (2022) sums up disciplinary literacy as combining deeper learning with literacy technique to engage students in the topics they will encounter. Comparatively, Goldfarb Cohen and Tabak (2022) and Shifflet and Hunt (2019) found that disciplinary literacy is not only effective, but it supports content learning and promotes progress.

## **Project Description**

The problem addressed in the qualitative study was that middle school disciplinary teachers acknowledge they were struggling to integrate literacy strategies in their specific disciplines to improve reading outcomes on state assessments. The data from this study indicated that participants at the study site required professional development on how to teach their students the literacy skills needed for their specific disciplines and how to use them strategically in speaking and writing. The struggle with integrating the literacy skills needed for their specific disciplines and how to use them strategically in speaking and writing will be addressed during the proposed 3-day professional development. Day 1 will focus on defining the terms literacy and disciplinary literacy. It will highlight why some teachers may struggle with teaching students the literacy skills needed for their specific disciplines. A theme that emerged from the study is that teachers are relying on students' previously taught literacy skills. Day 1 of the professional development will help teachers understand why that is not best practice.

Day 2 will focus on sharing with teachers how they can build disciplinary literacy skills through several activities, including a task analysis. This will help teachers in learning how to isolate the skills needed for their specific disciplines and how to teach students to use them strategically in speaking and writing. Within this professional development, there will be opportunities for participants to collaborate and design lessons based on the information presented.

On Day 3 of the professional development, teachers will be allowed time to collaborate with their disciplinary peers to plan lessons based on the information provided during the professional development. They will have access to the disciplinary mentor teachers who assisted in the delivery of the professional learning. The training will allow teachers multiple opportunities for reflection and discussion on how effectively integrating disciplinary literacy in their instructional practices can drive student achievement. The professional development will provide research-based strategies that ensure success for students in every discipline.

When developing this professional development, I examined the available resources and support at the local study site. I also made sure to consider barriers for teachers at the study site. The professional development is structured to allow time for reflection and discussion on how the newly learned strategies can drive lessons for student achievement. With continued collaboration, participants can continue to partner with their peers and plan lessons using their acquired disciplinary literacy strategies. When the professional development is over, participants will be able to submit an anonymous evaluation of the learning presented.

### **Project Evaluation Plan**

I will use an outcome-based project evaluation to measure the effectiveness of the professional development. I will provide participants a QR code that will be linked to a Microsoft form. Using the Microsoft form, participants will be asked to evaluate the training. The survey will be anonymous to increase the validity of the results. The goal of the project is to enhance the pedagogical strategies of disciplinary teachers (Osman &

Warner, 2020). More specifically, the goal is to equip secondary disciplinary teachers with the skills necessary to assess the skills needed and knowledge and practices required for their specific discipline. When educators implement research-based literacy strategies, they can provide more effective lessons for all learners in their classrooms. Results from the evaluation form will be shared with district and local administrators, including the principal and the superintendent. Other stakeholders at the project site include all teachers and the students.

### **Project Implications**

At the project site, teachers' responses during the semistructured interviews indicated a need for professional development in the area of integrating research-based disciplinary literacy skills in their instructional practices. The data from this study are reflected in the design of the professional development. Disciplinary teachers will benefit from this professional development by learning how to teach students the literacy skills needed for their specific disciplines and how to use them strategically in speaking and writing. The activities planned within the professional development will promote enhanced collaboration between disciplinary teachers at the study site. The planned activities include defining literacy and disciplinary literacy, engaging in a conversation around the differences between disciplinary and content area literacy practices, and creating opportunities for collaboration with other disciplinary teachers within their disciplines.

**Stakeholders**

This project should be used by school districts to increase the pedagogical knowledge of research-based disciplinary literacy strategies of the disciplinary teacher at the study site. It should also be used to increase the integration of disciplinary literacy skills into teachers' respective disciplines. The social change implications include greater collaboration among disciplinary teachers and a better understanding of how to prepare and deliver disciplinary literacy instruction to all students.

**Conclusion**

While analyzing the data, I identified a need for professional development. The goal of professional development is to enhance the pedagogical strategies of disciplinary teachers. More specifically, to equip secondary disciplinary teachers with the skills necessary to assess the skills needed and knowledge and practices required for their specific discipline. I created professional development to assist disciplinary teachers in applying research-based disciplinary literacy practices and to promote collaboration among disciplinary teachers. As disciplinary teachers participate in the professional development, they will learn about different research-based disciplinary literacy strategies that can increase their students' reading achievement outcomes on state assessments.

## Section 4: Reflections and Conclusions

### **Project Strengths and Limitations**

Section 4 contains an overview of the project study and presents the project's strengths and limitations, the recommendations for addressing the problem identified, the evaluation of the project's effectiveness, my reflection on the project design, the rationale for the choice, and the directions for future research. The results of the data analysis served as the basis for the development of the 3-day professional development for disciplinary teachers who are struggling to effectively integrate disciplinary literacy strategies into their instructional practices. The findings from this study could potentially be used by researchers in developing effective professional development to support teachers as they work to integrate literacy strategies into their instructional practices. Additionally, students' reading outcomes on state assessments will allow the teachers to set specific goals and select specific strategies. Student assessment outcomes may provide evidence for their improving literacy proficiency.

#### **Project Strengths**

The data I collected from the participants served as a guide for the project deliverable. I created the 3-day professional development to fill the gap in practice identified at the study site in which many disciplinary teachers acknowledge they struggle to integrate literacy strategies in their specific disciplines to improve reading outcomes on state assessments. The purpose of this qualitative study was to investigate how disciplinary teachers integrate literacy strategies to improve reading outcomes on state assessments within their respective disciplines. According to the findings in Section 2,



disciplinary teachers at the study site could benefit from professional development focused on providing evidence-based disciplinary literacy strategies.

Data analysis revealed three themes. The first theme is that disciplinary teachers are integrating students' previously taught literacy skills in their specific disciplines to improve student outcomes on state assessments. The second theme that arose is that disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments by considering their students' varied reading levels, reading skills, and vocabulary. The third and final theme that arose is that disciplinary teachers select literacy strategies for improving the elements of their disciplines for literacy demands of their discipline-specific state assessments by considering students' digital literacy and technology skills.

There are several strengths of the project study. Participants in this study acknowledged integrating disciplinary literacy strategies in their respective discipline areas; however, only three of the 10 participants could articulate how they teach students the specific literacy skills needed for their disciplines. The data support the need for professional development and resources to support the learner present in their disciplinary classrooms. In response to these concerns, I will center the professional development around exploring the literacy skills needed for their specific disciplines and how to teach their students to use them strategically in speaking and writing. Another strength of this study is that professional development will address areas of need stated by the initial participants in the study. It will also include concerns that are expressed by those who attend the professional development.

Since the professional development will be in person, small disciplinary groups will be utilized to encourage discussion and collaboration of the information presented. This practice will ensure that teachers have an opportunity to listen to the information being presented and to engage in discussion and application with their colleagues. Lastly, the project was based on Knowles's theory of adult learning (andragogy) and research-based strategies for developing professional learning. The professional development will provide opportunities to learn more about discipline-specific literacy strategies that can be integrated into their instruction to increase students' reading outcomes on state assessments. Overall, the professional development will allow for an enhanced classroom experience for both the student and teacher.

### **Project Limitations**

One limitation of this project was the timing of the development of the project itself. Since this professional development was proposed after the beginning of the school year, the implementation of it may be delayed. All professional development offered for the school year has already been approved and listed in the district-wide professional development catalog. This means that resources have already been provided and allotted for, and professional development will most likely be offered next school year. Also, because the professional development is a 3-day event, securing substitutes to fill absent teachers' places will be complicated, as there is a substitute shortage throughout the district. Therefore, the training may likely be offered during the summer months or the next school year. If the district decides to approve and allot resources for the implementation of the professional development, it will be important to consider the

schedules of all involved if offered during the summer months. A second limitation of the project involves the follow-up action plan as it relates to monitoring the implementation of the disciplinary strategies provided with fidelity. Due to the size of the district and all the other requirements of teachers in the district, it may prove difficult to establish a follow-up action plan where implementation is monitored, and teachers have opportunities to collaborate with their mentor disciplinary teachers.

### **Recommendations for Alternative Approaches**

In this project study, I used a basic qualitative design, and I sought to determine how secondary disciplinary teachers integrated literacy strategies to improve reading outcomes on state assessments. The problem was that disciplinary teachers at the study site acknowledged that they struggle to integrate literacy strategies in their specific disciplines to improve reading outcomes on state assessments. Knowles's (1984) theory of adult learning (andragogy) and Shanahan and Shanahan's (2008) disciplinary literacy framework were used as the conceptual framework. Based on the data, a professional development was created for secondary disciplinary teachers. There are several ways that this problem could have been addressed differently, both overall and locally.

Another way this problem could have been alternatively addressed would have been to expand the potential participant pool by writing a dissertation instead of doing a project study. Using this approach could have then led to a quantitative method being employed, and a survey being used to collect data. Using a survey has the potential to increase the scope and range of the study. Increasing the scope and range of the study could have led to the study being extended to include other districts and demographics.

For the local problem, an alternative approach would have been to address the problem by creating a curriculum that has research-based disciplinary literacy strategies already built into the curriculum. Providing teachers with lessons that already have research-based disciplinary literacy strategies included would alleviate the struggle the teachers are facing.

### **Scholarship, Project Development and Evaluation, and Leadership and Change**

Knowles's (1984) theory of adult learning (andragogy) provides several assumptions about adults as learners. As I consider them, the one that resonates the most with me is the assumption that asserts that adults are most interested in learning subjects that have immediate relevance and impact on their job or personal life (Knowles, 1984). The application of this assumption influenced the process of developing the project deliverable of a professional development. As I reflect on my doctoral journey, I can say that I have seen, even in my own learning, how true this assumption is. The coursework that I completed in this doctoral program provided the foundation needed to see this project to its end. Throughout the program, I was afforded opportunities to enhance my own pedagogical knowledge and make changes in the way I approached professional learning. The vital component for me being able to complete the research process was based upon collaboration with my professors and my willingness to take advantage of the immense support offered at Walden.

### **Project Development**

Developing this project was personal for me due to my experience as a former disciplinary teacher at the study site. As I learned about and applied Knowles's (1984)

theory of adult learning to my own educational philosophy, I realized the importance of data-driven practices in every aspect of education. Additionally, I learned the importance of providing teachers with data-driven, practice-based, and immediately applicable professional development. Providing educators with this type of professional development and giving them opportunities to collaborate throughout the professional learning will not only impact their instructional practices but also enhance their students' learning experiences in the classroom. This project has the potential to create agents of social change in the classroom and beyond.

### **Leadership and Change**

In my career, I have been a disciplinary teacher, a literacy teacher, and an instructional specialist. As a former disciplinary teacher at the study site, I can remember integrating literacy strategies into my instruction. However, as I conducted this research, I realized that I had not integrated disciplinary literacy strategies into my instruction. I did not teach my students how to read, write, and speak as historians. I was doing exactly what the disciplinary teachers at the study site were doing. I was integrating students' previously taught literacy skills into my instructional practices. There were no professional development opportunities offered in my district at the time that centered around disciplinary literacy practices.

As an instructional specialist, I was able to effect change in the way the special education department offered professional development to our new special education teachers. In this leadership position, I applied the knowledge I acquired throughout the research process to advocate for and help create more practice-based, data-driven

professional development. I truly learned what it means to be a scholar-practitioner. Being able to apply the knowledge gained through my Walden coursework and the interactions with my committee has been invaluable and career-altering.

### **Analysis of Self as Scholar**

When I began this doctoral process, I was unsure of myself as a learner and as an educator. As I am nearing the end of this journey, I have become a better reader, writer, speaker, and listener. I am more confident in my identity as an educator now than ever before. My research skills and ability to synthesize information in written form have improved drastically. I attribute that improvement to my doctoral journey at Walden. The writing resources in place and the multi-level intensive support offered had a huge impact on my writing skills. While it has been a difficult journey with many ups, downs, and setbacks, I am grateful for every part of the experience. The scholarly attributes I have attained in this process helped me to produce a professional development that reflects my experience.

### **Analysis of Self as a Practitioner**

Prior to starting this process, I had never heard the term *agent of social change* and had no idea what it meant. As I progressed through the research process, I became a better educator. I am more aware of the implications of the work I do and its ability to affect social change. As an educator, I have attended many professional developments that I felt were a waste of my time. I realize now, after learning Knowles's (1984) theory of adult learning (andragogy) that the reason may have been that I did not see how it would have an immediate impact on my job. With my newfound understanding of adult

learning, I have collaborated with district staff and helped create professional learning opportunities for new special education teachers that they could immediately apply to their roles. Completing this study and project deliverable, I will continue to advocate for professional development that teachers can immediately apply to their roles and truly become agents of social change.

### **Analysis of Self as Project Developer**

Developing this project has opened my eyes to the foundational work that must be done before a professional development can be delivered. Good professional development meets the needs of the targeted audience. To meet the needs of the intended audience, the foundational work of gathering and analyzing data must be done to identify those needs. After data analysis comes the consideration of time and resources available. Only after the foundational work is done can professional development materials be created. As I followed the steps of this process, I realized that professional development should not be just PowerPoints and handouts. Professional development should be practice-based and immediately applicable to the intended audience's roles. It is my hope that I have produced a practice-based and immediately applicable professional development that can be used to enhance teachers' practices across the globe.

### **Reflection on Importance of the Work**

Throughout the course of the study, I realized how important it is for districts to adequately equip their teachers to meet the growing literacy demands of state assessments. As I completed the data analysis, I realized that the disciplinary teachers at the study site had a need that the school district was not meeting. While the teachers were

implementing literacy strategies, most were doing so blindly. All 10 participants talked about the importance of literacy in their disciplines, but very few could articulate the specific disciplinary literacy skills students needed to possess to be proficient scientists, mathematicians, historians, journalists, and linguists. Knowles's (1984) theory of adult learning (andragogy) asserts that adults are most interested in learning subjects that have immediate relevance and impact on their job or personal lives.

With this assumption in mind, I created a practice-based professional development that provides disciplinary teachers with research-based disciplinary literacy strategies. Not only will teachers be provided with strategies, but they will also be taught how to effectively integrate them into their everyday classroom instruction. Teachers will be provided with multiple opportunities throughout the course of professional development to discuss and collaborate with their peers. Khasawneh et al. (2023) found that teacher collaboration plays a vital role in the success of professional development and student performance. This finding encompasses the true importance of the work that was done while conducting the study and creating the subsequent professional development. The work that was done is extremely important because it has the potential to impact student achievement and lead to increased teacher capacity.

### **Implications, Applications, and Directions for Future Research**

Promoting positive social change was the underlying theme of this project study and was always at the forefront of my mind as I embarked on the research portion of this doctoral journey. The results of this project study have tangible benefits for teachers, students, administrators, and parents. At the local school level, teachers and



administrators will see the benefits through the improvement of instructional practices and, subsequently, student outcomes on state assessments. As student outcomes increase, teacher self-efficacy to deliver lessons integrated with disciplinary literacy strategies will also increase. The project deliverable of a practice-based professional development approach provides educators with increased opportunities to collaborate with their peers and create lessons that will reflect their learning.

Educators' increased ability to integrate disciplinary literacy strategies in their instructional practices aligns with Knowles's (1977) theory of adult learning in that he indicated that change must start with the educator. Similarly, Colwell et al. (2021) suggest that effective literacy instruction builds self-efficacy in adolescents regarding academic skills and may foster more participation in a disciplinary culture and shape skills required of involved citizens. Therefore, this project provides various opportunities for educators to adjust their instructional practices to increase student self-efficacy and outcomes on state assessments overall. Parents and students themselves may see the most benefit as disciplinary literacy strategies are implemented with fidelity and student achievement increases. Along with increased student achievement, parents will see their students become more proficient readers, writers, speakers, and listeners. Increased literacy proficiency leads to creating agents of positive social change.

### **Applications for Future Research**

A recommendation for future research would be to examine how disciplinary teachers across the nation are integrating disciplinary literacy strategies in their instructional practices. A quantitative approach could also be employed, which would

yield a larger sample size. With more data available, the validity and generalizability of the results from the study site could be increased. With increased validity and generalizability, the project deliverable of professional development could be modified to meet the needs of a particular district. Overall, the study could be replicated in another district to compare the findings.

### **Conclusion**

The findings from this project study have the potential to affect not only secondary disciplinary teachers but all disciplinary K-12 teachers. Integrating disciplinary literacy strategies into their instructional practices has been a challenge for both veteran and new teachers in the Georgia school district where the study was conducted. As the literacy becomes an increased area of focus for the State of Georgia, the literacy demands of state assessments are also increasing. Increased literacy demands on disciplinary state assessments will require teachers to make instructional shifts to prepare students to meet those demands. As previously stated, researchers have found that secondary disciplinary teacher roles in increasing disciplinary literacy skills is needed and vital if students in Grade 6 through Grade 12 are to become college- and career-ready (Davies et al., 2022; International Literacy Association, 2015). Providing teachers with professional development that is practice-based and immediately applicable to the roles will promote positive social change as teachers gain access to effective professional development that influences their instructional practices while gaining their buy-in. The self-efficacy of both educators and students may be improved as they see the impact of intentional and effective professional development.

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Appendix A: The Project



## **A few reminders...**

Please make sure that you have registered for this course in the PD&E. The course number is 32456. If you cannot access it, please sign in using the google form or the physical sign in sheet and we will add you to the course later.

You need your laptop for this session. If you don't have yours, we have some extra student ones in the back. Please sit anywhere.

Grab a snack and some water.

# Sign-in Sheet



## 3-day overview

Day 1: An introduction to Disciplinary Literacy

Day 2: Building Disciplinary Literacy Skills

Day 3: Integrating Disciplinary Literacy Strategies into your instructional planning

## Goal

This professional development has one goal, and that is to equip secondary disciplinary teachers with the skills necessary to assess the necessary skills, knowledge and practices required for their specific discipline.

## Learning Outcomes

By the end of this three-day professional development, teachers should be able to: Define literacy and disciplinary literacy.

Differentiate between disciplinary literacy and content area literacy instructional practices.

Plan a lesson with disciplinary literacy skills integrated in it.

## Target Audience

The target audience for this professional learning is secondary disciplinary teachers.



## Day 1 Agenda

8:00-8:30- Arrival

8:30- 8:35- introduction, review of agenda and learning outcomes

8:35-9:45- Main session begins( An introduction to Disciplinary Literacy)

9:45-10:00- Break

10:00-11:00- Continuation of Main Session

11:00- 12:00- Lunch

12:00-1:30- Continuation of Main Session

1:30-1:45-Break

1:45-2:45- Main Session wrap up, exit ticket

What is disciplinary literacy?

Quick Jot(1 min)

Using a sticky note, jot down what you think disciplinary literacy is.

## Quick Video and activity

Let's watch a quick video on disciplinary literacy with Cynthia Shanahan.

Turn and talk to your table mates about whether you agree or disagree with Cynthia Shanahan's statements about disciplinary literacy and why you agree or disagree.

## Disciplinary Literacy background information

We cannot talk about disciplinary literacy without mentioning Timothy and Cynthia Shanahan.

In 2008, They proposed that disciplinary literacy was notably different from English language arts literacy in that disciplinary literacy entails specific strategies that embed literacy within the disciplines (Shanahan & Shanahan, 2008)

Shanahan and Shanahan's application of disciplinary literacy was based on the insufficient progress of content area literacy to address the adolescent reading crisis.

Shanahan suggested that literacy is more than reading. The strategies must include students making meaning and learning the vocabulary of each subject and learning to display the knowledge in writing and assessments.

## What is disciplinary literacy?

Disciplinary Literacy is defined as advanced literacy instruction embedded within content area classes, such as math, science, and social studies (Shanahan & Shanahan, 2008).

It is teaching students how to read, write, speak and listen like historians, mathematicians, scientists etc.

## Disciplinary Literacy is not...

Another word for content area reading

A technique used to work with struggling readers

A general approach to literacy across disciplines

Restricted to study skills

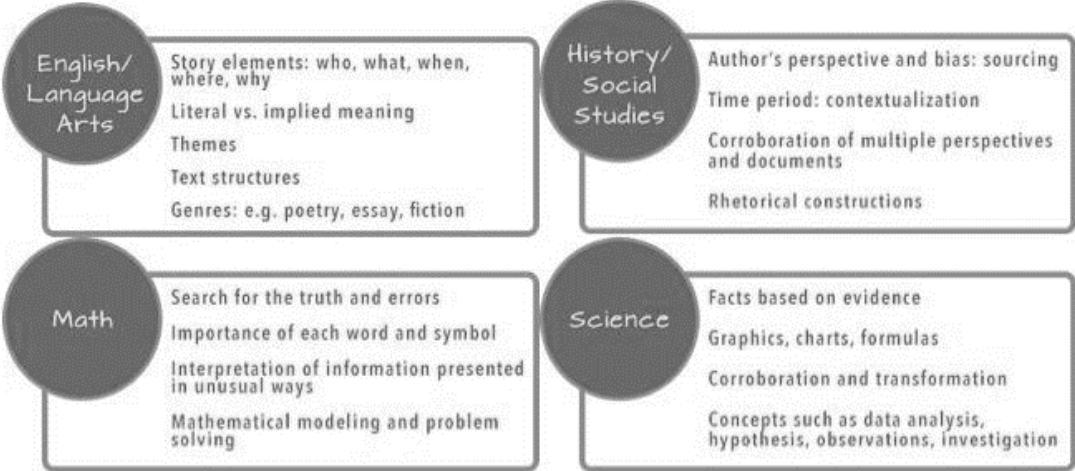
## Turn and Talk

How do historians read text?

What are they looking for?

Give an example of what a historian might be looking for when interacting with a text.

*Reading in the disciplines  
can look very different*





## Exit Ticket

How did today's session help you deepen your understanding of disciplinary literacy?



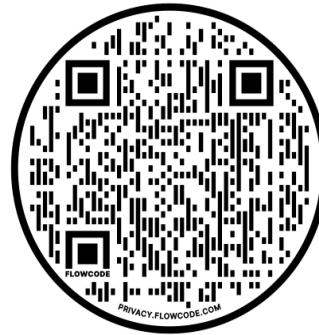
Oct 2024

*Disciplinary Literacy: You're the expert!*  
Project Study

Welcome to Day 2!

The image is a collage of educational graphics. On the left, a red pencil is positioned above a photograph of a diverse group of children of various ethnicities and ages. In the center of the photograph, a young girl is holding a globe of the Earth. To the right of the photograph, there are three text boxes: a small green box with the text 'Oct 2024', a larger teal box with the text 'Disciplinary Literacy: You're the expert!' and 'Project Study' below it, and a black box with the text 'Welcome to Day 2!'. Additionally, an orange pencil is positioned above the teal box, and a green pencil is positioned below the black box.

# Sign-in Sheet



## A few reminders..

Please make sure that you have registered for this course in the PD&E. The course number is 32456. If you cannot access it, please sign in on the sign in sheet and we will add you to the course later.

You need your laptop for this session. If you don't have yours, we have some extra student ones in the back.

Please sit anywhere

Grab a snack and some water

## 3-day overview

Day 1: An introduction to Disciplinary Literacy

Day 2: Building Disciplinary Literacy Skills

Day 3: Integrating Disciplinary Literacy Strategies into your instructional planning

## Day 2 agenda

8:00-8:30- Arrival

8:30- 8:35- Review of agenda and learning outcomes

8:35-9:45- Main session begins( Building Disciplinary Literacy Skills)

9:45-10:00- Break

10:00-11:00- Continuation of Main Session

11:00- 12:00- Lunch

12:00-1:30- Continuation of Main Session

1:30-1:45-Break

1:45-2:45- Main Session wrap up, exit ticket

## Why Are Disciplinary Texts challenging for Students?

Students may not have:

Experience reading lengthy expository text

Content-specific vocabulary

Decoding skills

Comprehension strategies

Background knowledge and interest in the content

### *How do we build students' disciplinary skills?*

We build students' disciplinary skills by teaching them the literacy skills needed for each specific discipline, and how to use them strategically in speaking and writing.

We build students' disciplinary skills by teaching them strategies to help them interact with complex text within the disciplines



*Strategies for reading complex texts*

1. Start with easier texts; build complexity
2. Start with small chunks of text & increase
3. Celebrate when students read longer text
4. Model struggling with text; honor the struggle
5. Teach students to pay attention to important parts of the text (graphic organizers, annotation)
6. Set authentic purposes for reading
7. Model working carefully through text
8. Before teaching, determine the key ideas & significant details; plan supports
9. Teach students to collaborate with peers
10. Talk less; listen more. Allow students to figure out the text & answer their own questions

## Turn and Talk

What strategies can you use in your classroom to build your students' disciplinary literacy skills?

## Video

Watch the video with one of two questions in mind

1. What strategies am I currently integrating in my lessons that I will continue to use to build my students' disciplinary literacy skills?
2. What strategies can I integrate in my lessons that can be used to build my students disciplinary literacy skills?

## Turn and Talk

Talk with your table mates and share the answers to question 1 or 2

## Work Session

Work with your fellow content area partner to look at an upcoming lesson and brainstorm what disciplinary literacy strategies you have incorporated or will incorporate to build your students' disciplinary literacy skills

## Exit Ticket

How did today's session help you brainstorm how to build your students' disciplinary literacy skills?



Oct 2024

*Disciplinary Literacy: You're the expert!*  
*Project Study*

*Welcome to Day 3!*



# Sign-in Sheet





## A few reminders...

Please make sure that you have registered for this course in the PD&E. The course number is 32456. If you cannot access it, please sign in on the sign in sheet and we will add you to the course later.

You need your laptop for this session. If you don't have yours, we have some extra student ones in the back.

Please sit anywhere

Grab a snack and some water

## 3-day overview

Day 1: An introduction to Disciplinary Literacy

Day 2: Building Disciplinary Literacy Skills

Day 3: Integrating Disciplinary Literacy Strategies into your instructional planning

## Day 3 agenda

8:00-8:30- Arrival

8:30- 8:35- Review of agenda and learning outcomes

8:35-9:45- Main session begins (Integrating Disciplinary Literacy practices in your instruction)

9:45-10:00- Break

10:00-11:00- Continuation of Main Session

11:00- 12:00- Lunch

12:00-1:30- Continuation of Main Session

1:30-1:45-Break

1:45-2:45- Main Session wrap up, exit ticket

## Quick Jot..

1. Jot down 3 ways you integrate disciplinary literacy strategies in your instruction
2. Jot down 2 things you hope to gain from today's session.

## Disciplinary literacy strategies to help students interact with complex disciplinary texts

Start with easier texts; build complexity

Start with small chunks of text & increase

Celebrate when students read longer text

Model struggling with text; honor the struggle

Teach students to pay attention to important parts of the text (graphic organizers, annotation)

## Strategies continued..

Set authentic purposes for reading

Model working carefully through text

Before teaching, determine the key ideas & significant details; plan supports

Teach students to collaborate with peers

Talk less; listen more. Allow students to figure out the text & answer their own questions

## Strategy Spotlight -Close Reading

The standards focus on students reading closely to draw evidence and knowledge from the text.

Close reading and gathering knowledge from specific texts should be at the center of classroom activities.

Coleman & Pimentel (2012)

## Strategy Spotlight -Rereading

### Why Reread?

1st reading: What are the central ideas of this text? (basic comprehension)

2nd reading: How does this text work? (literary devices used by the author, word choice, quality of evidence, how data was presented)



Rereading continued..

3rd reading: What does this text mean? (critical analysis, make text to self connections)

After reading, students engage in shared discussions to further analyze the text

Let's practice

Read an article about Condoleezza Rice.

Be prepared to tell me the main idea.

# Condoleezza Rice



## Model: Think Aloud

What strategies does this teacher model that help solve comprehension problems?

Watch: ["A Better Example"](#)

## Practice Think Alouds

Partner A reads and thinks aloud while solving comprehension problems

Partner B records A's think alouds

Switch roles

Compare strategies used

With your partner, list the strategies you used

Add to the class poster of strategies

Circle the strategies that relate to the discipline

Underline general strategies

## Scaffolding Instruction

Increase opportunities to practice skills

Provide instruction in small groups

Pre-teach vocabulary

Smaller tasks

Require reading of less text

Provide more time

Provide interventions as needed

## Reflection

How would you modify the activities we did with the Condoleezza Rice article to meet the needs of all the learners in your classroom?



## Work Session

Plan an upcoming lesson with your content partner at your table incorporating some of the strategies we discussed today. We will be available should you need help or have any questions.

# Feedback Survey

Please complete the following anonymous feedback survey on google forms



That's all folks..

Thank you for joining us for this 3-day workshop! We hope you feel more equipped to build your students' disciplinary literacy skills.

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### Appendix B: Permission to Conduct Study Letter

Dear Superintendent Dr. Watts,

I am a doctoral student at Walden University working on a project study as a requirement for graduation with a degree in Reading, Literacy and Assessment. I am researching *How Secondary Disciplinary Teachers Integrate Literacy Strategies to Improve Outcomes on State Assessments*. I am seeking your permission to conduct my project study at Grace Snell Middle School. During the study, I will request the participation of about 10-15 disciplinary teachers for interviews. The interviews will be scheduled based on the participants' availability. This research does not include any student data or interviews and will not pose any harm to you, the facility, the staff, or students at Grace Snell Middle School.

Your permission is greatly appreciated.

Thank you,

Miracle Brewington

## Appendix C: Permission to Conduct Study Letter – Site Administrator

Dear Principal Vaughan,

I am a doctoral student at Walden University working on a project study as a requirement for graduation with a degree in Reading, Literacy and Assessment. I am researching *How Secondary Disciplinary Teachers Integrate Literacy Strategies to Improve Outcomes on State Assessments*. I am seeking your permission to conduct my project study at Grace Snell Middle School. During the study, I will request the participation of about 10-15 disciplinary teachers for interviews. The interviews will be scheduled based on the participants' availability. This research does not include any student data or interviews and will not pose any harm to you, the facility, the staff, or students at Grace Snell Middle School.

Your permission is greatly appreciated.

Thank you,

Miracle Brewington

## Appendix D: Teacher Electronic Invitation to Research Study

Dear Colleague,

I am a doctoral student at Walden University working on a project study as a requirement for graduation with a degree in Reading, Literacy and Assessment. I am researching *How Secondary Disciplinary Teachers Integrate Literacy Strategies to Improve Outcomes on State Assessments* and I understand that you may be interested in volunteering to assist me with my research. As you are a disciplinary teacher at the study site, you are familiar with the instructional strategies that are a vital part of this study. Learners' ability to read, write, listen, and speak using academic language and vocabulary in the disciplines impacts their achievement on state assessments.

The purpose of this basic qualitative study is to investigate how secondary disciplinary teachers integrate literacy strategies to improve reading outcomes on state assessments. Your participation in this study will include the following:

1. All interviews will be conducted in a safe, secure way to ensure confidentiality. The interview will take approximately 20-30 minutes and will occur at the study site.
2. You will have the opportunity to review all interview transcripts created to check for accuracy and make any edits prior to final transcription.
3. Extra steps will be taken to ensure confidentiality of your responses. Any data collected will be kept in a secure location and will only be reviewed by myself and my research committee. At no time will your identity, location, or any identifying markers be revealed. You will be assigned a pseudonym to protect

your identity. Your personal information and data will not be accessed for any purpose independent of this research study. The information acquired will be stored in a locked environment and destroyed after 5 years.

If you are interested in participating in this study, please reply to this email and I will send you a consent form for your review and signature. If you have any questions, please contact me at [REDACTED] or [REDACTED].

Thank you,

Miracle Brewington