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High School Content-Area Teachers' Responses to an Exploratory, Investigative, and Experimental Professional Development Program for Content Area Literacy

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HIGH SCHOOL CONTENT-AREA TEACHERS' RESPONSES TO AN

EXPLORATORY, INVESTIGATIVE, AND EXPERIMENTAL PROFESSIONAL

DEVELOPMENT PROGRAM FOR CONTENT AREA LITERACY

A dissertation proposal submitted in partial fulfillment of the

requirements for the degree of

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in

EXCEPTIONAL STUDENT EDUCATION

by

Laura Ferreira Vesga

2016

To: Dean Michael R. Heithaus
      College of Arts, Sciences and Education

This dissertation, written by Laura Ferreira Vesga, and entitled High School Content-Area Teachers' Responses to an Exploratory, Investigative, and Experimental Professional Development Program for Content Area Literacy, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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Elizabeth Cramer

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Linda Blanton, Major Professor

Date of Defense: June 7, 2016

The dissertation of Laura Ferreira Vesga is approved.

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Dean Michael R. Heithaus
College of Arts, Sciences and Education

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Andrés G. Gil
Vice President for Research and Economic Development
and Dean of the University Graduate School

Florida International University, 2016

DEDICATION

This dissertation is dedicated to my family. To my mom, Nidia, who has always predicted that one day I would write a book; here it is mom! To my children, Chloe and Lucas, I am so proud of the individuals you have become during my studies. There were many nights, many weekends, and many vacations we needed to sacrifice. I am so thankful for your selflessness and understanding. Lastly to my husband, Carlos, thank you for not letting me quit and for pushing me when I did not feel like I could go any further. I love you all very much.

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ABSTRACT OF THE DISSERTATION

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Florida International University, 2016

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Professor Linda Blanton, Major Professor

Adolescent literacy rates for students who struggle, particularly those with

disabilities are alarming, especially in light of current trends to increase educational

standards. As higher standards place a greater emphasis on reading and writing,

addressing students' literacy needs in the content areas has become a topic of interest in

reading education. Although there is much debate about how to address this need, it is

clear that content area teachers need support addressing literacy in their subject areas.

In this qualitative study, an exploratory case study design was used to examine the

responses that high school content area teachers had to a nine week researcher designed

program of exploratory, investigative, and experimental (EIE) professional development

(PD). The study investigated high school social studies, math, and science content

teachers' responses to EIE PD specifically examining what they considered to be

valuable and useful aspects of the different components of the experience as it related to

their practice, to their anticipated student outcomes, and to their knowledge of literacy in

their content areas. Data were gathered from the pre and post interviews and

observations with each of the 10 participants, during eight focus group discussions and questionnaires about their PD experiences.

Findings from this study included: (a) increased awareness of teacher practice, (b) an overall favorable impact of teachers' anticipated outcomes for students who struggle academically, including students with disabilities, (c) themes in effective PD practices that include those persistent in the PD research, and (d) increased understanding of literacy in the content areas. Additionally, throughout the study, teachers stressed the importance of systematic support in their efforts to better meet the literacy needs of struggling students in their content area classrooms. The findings from this study suggest that content area teachers need professional development that supports their specific needs when addressing the literacy deficits of struggling adolescents in the content areas.

Based on the findings, the researcher recommends that teachers are provided professional development opportunities that will support them while they explore, investigate and experiment with infusing literacy into their content area instruction. This type of PD provides multiple levels of support to encourage inquiry and professional growth. Furthermore, the researcher recommends that further permutations of the EIE PD be conducted based on teacher responses and researcher observations in order to continue to refine the EIE PD experience which aims to support content area teachers in naturally infusing literacy strategies into their instructional routines.

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CHAPTER I

INTRODUCTION

According to the International Reading Association, young adults in the twenty-first century will be interacting with increasingly difficult tasks that require advanced reading and writing skills (Moje, Young, Readence, & Moore, 2000). Research studies and experts in the field (e.g., Alvermann, 2002; Fisher, Frey, & Lapp, 2011; Shanahan & Shannahan, 2008; Vacca & Vacca, 2005; Vaughn et al., 2013; Wendt, 2013) have noted that many of the nation's high school students are either not graduating or are leaving high school without adequate reading skills to be successful in college, in post school educational programs, or in the work force. In a review of historical data from the U.S. Bureau of Labor Statistics on labor force participation and unemployment rates of teens, Howell (2012) found that only one in four African American youth and just over 28% of Latino youth have the skills they need to acquire, hold and advance in a job in today's competitive market. Howell went on to explain that the impact these underprepared youth will have on the economy can be staggering.

According to the 2015 scores from the National Assessment of Educational Progress (NAEP), also known as the National Report Card, 60% of eighth graders and 60 % of twelfth graders scored below proficient in the reading portion of the assessment, revealing that millions of adolescents made minimal progress in their ability to evaluate text in order to gather meaning and understand what they are reading. Researchers have also noted that since 1971, the adolescent literacy rates have remained stagnant overall (Heller & Greenleaf, 2007; Howell, 2012; Wendt, 2013). This is also evident in the 2013

NAEP longitudinal data charts which show that the average literacy scores of 17 year-olds has remained stagnant over the last 40 years.

The lack of growth in the literacy outcomes of adolescents, in particular that of struggling at-risk adolescent students, has received increased attention since the Nation at Risk report (1983) published by the National Commission on Excellence in Education. The authors of that report stated that nearly 40% of adolescents "could not draw inferences from written material" (p.11). Although there is some controversy because this report used the science scores of 17 year olds to make inferences about their ability to read, it created an avalanche of increased attention to the progress of the nation's students.

According to Hemphill and Vanneman (2011), when analyzing the NAEP achievement gaps between Hispanic and White students in the U.S. between 1998 and 2009, there were no statistically significant changes in the gap between the reading scores of Grade 8 students. Additionally, half of incoming ninth graders in urban, economically deprived schools read three years or more below grade level (U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2013). As per the 2015 administration of the NAEP, eighth graders scored lower in 2015 than in 2013 and only 34% of them scored at or above proficient. Minorities, including students with disabilities, those in low socio-economic levels and non-white students all showed lower scores in 2015 as compared to the 2013 administration. These numbers indicate that there are a significant number of adolescents entering high school without the ability to comprehend complex grade-level content area text books. Additionally, the gap between the academic success rates of White adolescents and those who live with

economic disadvantages or are of African American or Hispanic descent continue to be wide (National Center for Education Statistics, 2015). According to the NAEP, although some progress has been made toward closing the gap, in many areas the change is not statistically significant. For example in 2015, only 19% of eighth graders receiving free and reduced lunch, 15% of African American eighth graders, 4% of English Language Learners in eighth grade, and 20% of Hispanic eight graders reached proficient levels on the NAEP assessment, as compared to 39% of White non-Hispanic students in the same grade.

According to Losen and Skiba (2010), for those students who have fallen behind and have been marginalized due to race, class, language, or disability, the middle school years can pose even greater challenges. One of the challenges for these students is that they will be faced with curricular demands in the Common Core State Standards that expect them to read and comprehend at grade level. This process can often become overwhelming and may increase the chances of these students dropping out because they are not appropriately supported from elementary to middle school and from middle school into high school. Unfortunately, students with disabilities, those who have economic challenges, and/or those who are culturally and linguistically diverse comprise a significantly large percentage of the one million students who drop out of school every year (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010). According to the National Center for Educational Statistics (2013), only 63% of Hispanics, 59% of African Americans, and 54% of Native Americans graduate from high school, compared to more than 75% of White-non Hispanic and Asian students. Of all those in special education, only 61% graduate.

According to the Florida Department of Education online database of the 2014 Florida Comprehensive Assessment Test (FCAT) results, 79% of all students with emotional/behavioral disabilities in the Grade 10 failed to meet proficient levels on the state examination, along with 80% of those with specific learning disabilities and 100% of those with intellectual disabilities. Students in special education, particularly those with low literacy skills, have a higher risk of ultimately dropping out (Zhang, 2014). Lastly, those special education students who manage to acquire a high school diploma are then likely to have to complete remedial course work upon entering college programs, increasing the likelihood that they will become part of the 45% who start and never complete college (Stinebrickner & Stinebrickner, 2013). In the workforce, these students can represent a loss of up to 335 billion dollars in wages and income (Jabobs, 2008), are more likely to be arrested, start families prior to adulthood and out of wedlock, and are less likely to complete a General Education Development (GED) certificate (Zablocki & Krezmien, 2013).

These staggering statistics on adolescents have led to the development and implementation of more rigorous curriculum standards which aim to help address their needs. The national Common Core has begun to address this issue by incorporating literacy and writing into content area standards (Haskins, Murnane, Sawhill, & Snow, 2012). Likewise, the Florida Standards, Florida's version of Common Core, will also require these increased literacy demands. This push toward higher standards represents the acknowledgement that learning to read is a process that not only develops beyond the elementary years, but also develops through content area literacies (Porter, McMaken, Hwang, & Yang, 2011).

With the new Common Core requirements embedding literacy in all content areas, the need for supporting teachers in their use of literacy strategies in content area classrooms is more important than ever. Common Core standards will place increased cognitive demands on students. Moreover, these standards will require students to develop a deep conceptual understanding of content areas — one that will require them to read and comprehend in order to effectively analyze and synthesize text while learning and interacting with content. This shift in educational expectations, dealing with the complexities of diversity (e.g., students with disabilities, speakers of other languages) and culture, along with the lack of support and preparation in literacy instruction leaves content area teachers facing monumental paradoxes and dilemmas in today's classrooms.

Effective Content Area Literacy Instruction

Researchers have found that although students are learning to read better in the early years, adolescents have not been able to keep up with the complex demands of specialized texts such as those found in science, mathematics and the social sciences (Lee, Grigg, & Donahue, 2007). As a result, the field of adolescent literacy has placed content area literacy at the forefront of the efforts focused on improving the educational outcomes of these young adults. Today researchers are attempting to redefine content area literacy by considering the importance that disciplinary specific strategies play in the comprehension and processing of subject area texts, and the role this has on instruction vs. the definitions in the past that define content area literacy by the implementation of generic reading strategies to understand content area material.

Proponents of disciplinary literacy have argued that generic comprehension strategies alone will not prepare adolescents to manage complex disciplinary skills

required to understand content area texts, making them less able to complete postsecondary programs or to compete in a global information-laden society (Shanahan & Shanahan, 2008). These researchers have proposed a model of literacy progression that develops from basic literacy, which includes decoding and use of high frequency word knowledge, *to* intermediate literacy, which consists of generic strategies, *to* disciplinary literacy, which includes the ability to understand specialized subject matter, such as the ability to group information to draw conclusions in science.

While proponents of disciplinary literacy have argued that teaching teachers to embed generic strategy instruction does not suffice, proponents of strategy instruction stated that without these basic strategies, readers, especially those already marginalized, will not be able to perform the more complex metacognitive processes involved with disciplinary literacy (Faggella-Luby, Graner, Deshler, & Drew, 2012). These researchers have argued that in light of current educational trends, both generic strategy instruction and discipline specific literacy strategies must be taught.

The years of reading research supporting the implementation of cognitive strategies that help and support struggling students in comprehension cannot be ignored in the face of reform. In the document *Academic Literacy Instruction for Adolescents: A Guidance Document* (Torgesen et al., 2007), from the Center on Instruction, the authors identified areas that must be incorporated into content area literacy instruction if content area teachers are to help their students attain and increase reading skills needed to master academic literacy needs. Among these areas are strategy instruction, engagement (i.e., discussion oriented instruction), and motivation (culturally and linguistically responsive).

Strategy instruction, whether rooted in the comprehension or disciplinary literacy literature, must include these components.

These components also reflect the NAEP's reading framework guidelines for content area instruction. They also have a strong presence in the body of research that addresses the literacy needs of students with disabilities, in particular those who have learning disabilities, and students who are culturally and linguistically diverse (Berkeley, Mastropieri, & Scruggs, 2011; Boardman et al., 2008; Bryant, Linan-Thompson, Ugel, Hamff, & Hougen, 2001; Manset-Williamson & Nelson, 2005; Olson & Land, 2007).

Apart from the pedagogical debate in the area of adolescent literacy, teachers' ability to offer effective instruction faces other barriers for implementation. As early as 1995, researchers documented the resistance of teachers to cover literacy instruction in their content areas (O'Brian, Stewart, & Moje, 1995), mostly stemming from lack of preparation and knowledge. Hall (2005) supported this finding in his review of research and reported that teachers did not feel they know enough about content area literacy instruction to help struggling students.

Unfortunately, much of the research in content area literacy has noted that teachers do not incorporate literacy into their lessons (Adams & Pegg, 2012; Cantrell & Callaway, 2008; Chambers-Cantrell, Burns, & Callaway, 2008) and that overall there is a strong resistance toward this type of instruction in the content areas (Chambers Cantrell et al., 2008; Christophe, 2011; Hall, 2005; Karr, 2011; McCross-Yergian & Krepps, 2010). Researchers have explained that this resistance is due to a variety of reasons (Hall, 2005). Although some research suggested that this resistance may be slowly changing (Fine, Zygouris-Coe, Senokossoff, & Fang, 2013; Karr, 2011), the majority of

research has shown otherwise. One reason for resistance found in a report published by the Alliance for Excellent Education (Heller & Greenleaf, 2007) is that content and special area teachers have not felt it is their responsibility to teach literacy. In addition, content area teachers have voiced that they do not have the knowledge to teach literacy nor do they feel prepared and supported to accomplish the task of blending effective literacy practices into their content area instruction (Bryant, Linan-Thompson, Ugel, Hamff, & Hougen, 2001; Meyer, 2013; Ness, 2008; Schumn & Vaughn, 1995).

In addition, Ness (2009) reported in a mixed methods study, which examined the frequency with which teachers addressed comprehension in social studies and science middle school classrooms, that not only do teachers of content areas in the middle school feel unqualified to teach comprehension, but they also feel that they are not responsible for teaching reading comprehension strategies to their students. Teachers shared frustration over pressures to cover content knowledge and teach literacy. Content area teachers also failed to find a connection between content knowledge and reading instruction. Ness's findings show that in 2400 minutes of logged observations, only 3% of instructional time was spent on comprehension instruction. This can potentially place students who are at-risk for academic failure at even greater risk when standards increase in complexity and teachers are not providing the strategy instruction needed for them to comprehend.

These findings, coupled with the increased pressure to serve more students with disabilities in the general education setting, are daunting for general education teachers who report that they do not have enough support or training to serve these students adequately (Buell, Hallam, Gamel-Mccormick, & Scheer, 1999; Kosko & Wilkins,

2009). According to the MetLife Survey of the American Teacher (Markow & Pieters, 2012), 78% of teachers reported that meeting the needs of diverse learners was one of the top challenges they faced. That study also documented lack of teacher preparation as an ongoing barrier to effective implementation of literacy practices in the content areas.

Further, secondary content area teachers have expressed that they feel just as unprepared to teach those students who have high incidence disabilities or who have fallen behind (Grskovic & Trzcninka, 2011). This can potentially be a difficult situation for both students and teachers as inclusion numbers are on the rise; according to the 35th Annual Report to Congress on the Implementation of the Individuals with Disabilities Act (2013), 61% of students with disabilities spent 80% or more of their instructional time in regular classrooms, as opposed to 46% reported in the 2000 report.

Full implementation of the Florida Standards, Florida's version of Common Core, was underway in Florida Schools for the 2014-2015 school year. This change placed an even greater expectation on teachers to address literacy within the content areas. With its strong research base, professional development for teachers must now more than ever aim to bridge the gap between research and practice by providing opportunities for content area teachers to find support for literacy implementation.

Professional Development

In the last 20 years, the nation has made a strong push to support teachers with professional development (PD) in order to impact student achievement. In the past 10 years, this push has been especially strong in the field of adolescent content area literacy as evidenced by the proliferation of research, commentaries and national attention on the topic (e.g., Alvermann, 2002; Birr Moje, Overby, Tysvaer, & Morris, 2008; Edmonds et

al., 2009; Ehren, 2009; Hasselbring, 2007; Jacobs, 2008; Moore, Bean, Birdyshaw, & Rycik, 1999; Polkinghorne, Hagler, & Anderson, 2010; Shanahan & Shanahan, 2012; Vaughn et al., 2011).

As early as the 1990s, researchers studying PD for in-service teachers (e.g., Wilson & Berne, 1999) have noted that PD is often "touted as the ticket to reform" (p.173). Almost 20 years ago, researchers pointed out the parallel press for higher standards for students and for teachers (Darling-Hammond & Ball, 1998). This push created an avalanche of legislation and reform in the area of teacher PD. For example, policy makers designed and passed the No Child Left Behind Act (NCLB) in 2001 that profoundly impacted PD for teachers. Specifically, NCLB mandated agencies to provide PD opportunities for in-service teachers. More recently, the Every Student Succeeds Act signed into law in December 2015 also includes a definition for professional development that is described as (a) an integral part of a school's repertoire that (b) is sustained, intensive, data driven, collaborative, classroom-focused, and job embedded. Remarkably though, according to Darling-Hammond et al. (2009), over 90% of teachers participate in workshop-style training sessions during a school year, despite strong research providing evidence that this type of PD is not as effective as other forms that allow teachers more opportunities to collaborate and learn in ongoing, locally situated and supported settings (e.g., Boyle, Lamprianou, & Boyle, 2005; Wilson, Grisham, & Smetana, 2009).

As early as the 1950s, in a book titled *In-Service Education 56th Year Book* (Henry, 1957) by the National Society for the Study of Education, Henry suggested that teachers should collaborate in providing locally situated, in-service PD opportunities. However, in contrast to other occupations where professionals have opportunities to view

each other's practice, work with mentors, and collaborate to find solutions, teachers are usually in their own classrooms, with little time to participate in meaningful and hands-on professional interactions. This is in stark contrast to countries that are out-performing the United States on tests that measure student proficiency in reading, math and science where teachers have more opportunities for collaboration and onsite professional learning (Darling-Hammond et al., 2009). For example, in a report by Wei, Darling-Hammond, Andree, Richardson, and Orphanos (2009) for the National Staff Development Council comparing the PD opportunities available for teachers in the United States and abroad, the authors found that compared to other countries that outperform us, teachers in the United States spend more time in the classroom and less time preparing for lessons and in collaboration with other professionals. Additionally, the researchers found that in competing nations, teachers have more input on curriculum and assessment choices and more opportunities for decision-making.

Lisa Delpit (2003), in her article, "Educators as Seed People; Growing a New Future", stated, "When we strip away a focus on developing the humanity of our children, we are left with programmed, mechanistic strategies, designed to achieve the programmed, mechanistic goal of raising test scores. Nowhere is the result more glaring than in urban classrooms serving low-income children of color, where low test scores meet programmed, scripted teaching" (p.14). She went on to say that in these programs, "teachers are treated like non-thinking objects to be manipulated and managed" (p.14). Delpit also quoted from Herb Kohl's essay, "Stupidity and Tears:"

….scripted teaching training programs for teachers are a form of

institutional and social coercion that traps people into acting in ways which they

consider to be stupid and, in the content of teacher education, counter to the work they feel they must do to help their students including confinement to insane norms of educational programs that restrict creativity and have clearly not worked. (as cited in Delpit, p.16)

Other scholars and researchers in the field (e.g., Cantrell & Hughes, 2008; Copeland, Keefe, Calhoon, Tanner, & Park, 2011; Draper, 2008; Duncan, Lee, Scarloss, & Shapley, 2007; Harwell, 2003) who have looked closely at PD practices in the last decade echo Delpit and Kohl. In a status report by the National Staff Development Council, Darling-Hammond, Wei, Andree, Richardson and Orphanos (2009) found that teachers report that they are rarely involved in collaborating to design curriculum or share practices. Darling-Hammond et al. added that the type of collaboration that teachers do participate in is often not focused on improving teaching and learning but rather on specific strategies and curricular trainings.

According to Harwell (2003), despite all the evidence to support a change in the way teachers are provided PD, little has changed -- teachers continue to participate in PD that transfers information, is focused on abstract discussions, and is not locally situated. Darling-Hammond and Richardson (2009) stated that these types of PDs, which fail to engage teachers as active participants, will continue to fail to produce notable, continuous improvements in teacher practice and thus impede improved student outcomes and achievement.

Since NCLB, many resources and large amounts of funding have been poured into PD, yet these efforts have not yielded the outcomes practitioners, and policy makers expected. For that reason it is important to turn to the body of

research that establishes effective research-based PD practices. According to research, key components of effective PD must be sustained, collaborative, intensive, and have support structures in place. Research suggests that PD where teachers learn best occurs in collaborative settings, is supported in their own content areas, and provides teachers the opportunity to receive feedback (e.g., Cantrell & Hughes, 2008; Draper, 2008; Harwell, 2003). These are practices that cannot be accomplished in a workshop style session.

The fact that teachers can benefit from PD is not new. For more than 50 years, researchers have made a connection among PD, increased teacher knowledge, and improved teacher practice (e.g., Birman, Desimone, Porter, & Garet, 2000; Desimone, 2009; Guskey, 2002; McLaughlin & Marsh, 1978; Wilson & Berne, 1999). Research has also made a strong connection between teacher learning and subsequent improved practice and the educational outcomes of students (e.g., Darling-Hammond, 1999; Desimone, Smith, & Phillips, 2013; Huffman, Thomas, & Lawrenz, 2003; Johnson, Kahle, & Fargo, 2007; Kroeger, Blaser, Raack, Cooper, & Kinder, 2000; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). As a result, this strong body of literature establishes that the components of effective teacher development are (a) focused on subject matter, (b) locally situated, (c) supported by instructional leaders for implementation, (d) aligned with local standards, (e) aligned with individual and collective needs, (f) planned for consistent and ongoing implementation, and (g) are inclusive of active learning opportunities.

Despite the intent of Common Core Standards to integrate literacy into the content areas, teachers are still struggling with the complexity of combining teaching content area

knowledge and literacy instruction. In the current era of reform, sit and learn professional development is now more than ever outdated. In its initial phase of implementation, PD should support teachers as they face literacy implementation and higher standards. Collaboratively, teachers can plan to tackle and investigate the complex matrix of the current classroom. The literature provides evidence for the idea that this type of PD can support teachers as they find ways to address the multi-faceted dimensions of improving adolescent literacy.

There is currently not enough research to support the absolute removal of comprehension strategy instruction from the PD agenda geared toward supporting teachers in their implementation of disciplinary literacy strategies. Neither is there enough research to identify specific disciplinary literacy skills in all subject areas. Research in the area of PD for content area teachers must now attempt to create a symbiosis with emerging and prevalent literacy theories. PD must ground itself in the core components of high quality PD practices that place the professional teacher at the base of its development and at the core of its implementation. This must be done in order to build a research base in the area of content area literacy and, more importantly, to support teachers in the field as they prepare to encounter the additional challenges of higher standards and addressing literacy in their classrooms.

Theoretical Grounding

The lack of adolescent progress in literacy has become a national concern. If schools are to support teachers adequately through the Common Core implementation, effective PD sessions that are cohesive and grounded in decades of research-based strategies need to be implemented in order for all students, especially for students who

struggle, to succeed. As shown in PD research, teachers will need opportunities for support that is locally situated (e.g., Darling-Hammond et al., 2009; Margolis & Doring, 2012), that provides opportunities for reflection on their teaching practices (Alvermann, Rezak, Mallozzi, Boatright, & Jackson, 2011; Zwart, Wubbels, Bergen, & Bolhuis, 2009) and occasions where they are able to think, talk, learn, plan and discuss in collaborative settings (Draper, 2008; Harwell, 2003; Hollenbeck & Kalchman, 2013; Marrongelle, Sztajn, & Smith, 2013). All of these qualities, which help define effective PD, have qualities that are constructivist in nature.

In the context of literacy instruction in the content areas, it is clear that a shift must be made away from the "every teacher is a reading teacher" philosophy to empowering content area teachers with literacy strategies so that they are better able to teach their students to use reading as a tool for increasing content mastery and concept development at the same time. Alvermann, Rezak, Mallozzi, Boatright, and Jackson (2011), in an interpretive case study of a prospective science teacher, found that the "purpose of teacher education courses should not be to settle anyone's identify within a particular discourse, but rather to support teachers' experimentation with different identities -- sometimes being more reading focused and other times being more content focused" (p.52). Although their case study was conducted with a pre-service teacher, this constructivist interpretation, which was made after analyzing and coding different artifacts including lesson plans, reflections and e-mails, can be used to frame PD for in-service teachers as they balance higher standards and meeting the needs of diverse learners and students with disabilities.

Similar to the Alvermann et al. (2001) study, a constructivist approach guided the PD used in this research. Instead of providing teachers with PD that aims to *teach* content area teachers *how-to* implement literacy strategies into their practice, this PD *supported* teachers as they *experimented* with the environment. This experience encouraged professional growth through exploration, investigation and an experimentation process framed by Vygotsky's social learning and social development theories. According to Vygotsky (as cited in John-Steiner & Mahn, 1996, p.193), social interactions with *artifacts* in the environment (e.g., language, beliefs, and science) are an essential component of development. He expresses that this development must occur in an external social setting before it is internalized. It is this internalization that increases the chances that teachers will improve upon or change their practice. PD that is guided by these constructivist concepts does not have a pre-prescribed program or agenda but, instead, situates the teacher within a multidisciplinary team that allows the teacher to interact and build upon his or her own expertise and experience. For example, if multidisciplinary conversations are available to teachers so that they may participate and explore concepts together with experts in other fields that might impact their own understanding of their practice, teachers will have more access to conversations that allow for discovery. Empowered teachers are then able to drive and develop PD initiatives and protocols to suit their specific needs and those of their colleagues and students. In the present study, this EIE PD guided teachers individually and as a group through a cycle of exploration, investigation and experimentation (EIE) as illustrated in Figure 1. Teachers explored the interaction between their classroom practices and

research-based best practices in order to increase the chances that they would implement these research-based practices, particularly those for content area literacy instruction.

EIE PROFESSIONAL DEVELOPMENT

In the **exploration** phase the teachers, independently and with colleagues, explored research based practices in the area of content area literacy. Additionally, they identified and explored the problems, what they knew about the problems and what support or tools they felt they needed in order to acquire solutions to problems within the context of research based practices for effective content area

In the investigative phase the teachers investigated to what extent research based strategies interacted with their established classroom routines and practices in the context of content area/disciplinary literacy. Teachers identified a specific area to focus on and investigated it further.

During the experimental phase, the teachers experimented with modifying current practices based on their investigation of their classroom practices and identified focus. Through analysis of gathered data during this phase, the teachers then chose to continue to explore the current focus or explored a different focus.

EXPLORATION

EXPERIMENTATION

INVESTIGTION

PROFESSIONAL DEVELOPMENT

PROFESSIONAL DEVELOPMENT

TEACHER PRACTICE

Figure 1. EIE professional development framework. This figure shows the process that guided the professional development sessions conducted in this study, which supported teachers as they interacted with the EIE processes.

Purpose

In the last several decades, increasing attention has been given to the issue of adolescent literacy, in particular for students most at-risk for academic failure. With this focus on adolescents and their teachers and their teachers' practice, it is evident that any type of reform initiative must consider the role of PD in supporting teachers of struggling adolescents and providing them with opportunities for professional growth in content area literacy instruction. Reforms in education and specifically in PD must focus on how

to better prepare and support in-service teachers to teach literacy in 21st century classrooms.

However, content area teachers are often required to participate in district PD or day-long workshops that focus on curriculum and specific methods in their content. This type of PD is often not connected directly to their own practice or their own students in their school, and it is rarely followed by support or opportunities to work collaboratively. Despite all the research to support effective in-service PD, content area teachers report that they are not receiving on-site support or training on specific literacy strategies, especially those which can support content area literacy practices for students with disabilities or those who come into their classrooms without grade level literacy skills. Teachers also report that they do not feel qualified to teach literacy in their content area classrooms. Lastly, current research on PD specific for content area teachers is sparse, even as national curriculum standards move forward toward implementation of more rigorous literacy demands in the content areas for both students and teachers.

Problem

This study investigated the extent to which PD grounded in a constructivist approach supported content area teachers to implement both core generic literacy strategies and specific disciplinary literacy strategies. Although some studies have examined the impact of effective content area literacy instruction on adolescent students' reading gains, limited research has focused on how to best support content area teachers to deliver this type of instruction. A body of research exists to show the impact of PD on teacher practice generally; however, little research is available on the effective components of PD specifically focused on disciplinary literacy for the content areas. This

study's findings contribute to the limited body of research that attempts to describe effective supports for content area teachers as they struggle to find a balance between content and literacy instruction.

Research Questions

This study investigated how professional development practices grounded in a constructivist approach – using an explorative, investigational, and experimental process -- supported content area teachers to implement both core generic literacy strategies and specific disciplinary literacy strategies in order to assist struggling students including those with disabilities. Specifically, the research questions were:

1. How do high school content area teachers in their descriptions of teaching practices, observations of their practices, and the outcomes they anticipate for their struggling students in content literacy, respond to an exploratory, investigative, and experimental professional development experience?

   1a. What professional development practices do content area teachers report as most useful as they explore, investigate, and experiment with literacy in their content areas in order to support struggling students, including students with disabilities?

2. How do high school content area teachers describe their understanding of disciplinary literacy strategies for struggling students, including students with disabilities, before and after a program of exploratory, investigative, and experimental professional development?

Definition of Terms

The following lists of terms are referred to throughout this study.

Adolescent

Adolescent is defined in various ways in the literature. In some studies, adolescents are students in Grades 4 through 12. In other reports, adolescents are students in Grades 6 through 12. Following the latter definition, in this study, adolescents will be defined as those students in the middle (Grades 6-8)) and high school years (Faggella-Lub & Capozzoli, 2009).

Cognitive Strategy

Interactions with texts that good readers use to make meaning and understand text. Cognitive strategies include activities such as asking questions to interrogate texts, summarizing, activating prior knowledge, and organizing and engaging prior knowledge with newly learned information (Conley, 2008).

Content Area Literacy

"Content literacy can be defined as the ability to use reading and writing for the acquisition of new content in a given discipline. Such ability includes three principal cognitive components: general literacy skills, content-specific literacy skills (such as map reading in the social studies,) and prior knowledge of content" (McKenna & Robinson, 1990, p. 188).

Culturally and Linguistically Responsive Teaching

The extent to which teachers use a student's cultural contributions as a meaningful component of selecting curricular materials, daily instructional practices and

routines in order to celebrate and provide equitable and just educational experiences (Nieto, 2000).

Disciplinary Literacy Strategies

Specialized strategies, routines, skills, language or practices inherent in certain content areas that are not generalizable to other domains. For example, in mathematics, students need to learn the strategies associated with processing the flow of information from mathematics texts books that weave in and out from print to numeracy (Shanahan & Shanahan, 2008).

High Incidence Disabilities

"Students with high-incidence disabilities are the most prevalent among children and youth with disabilities in U.S. schools. This group typically includes students with emotional and/or behavioral disorders (E/BD), learning disabilities (LD), and mild intellectual disability (MID). However, students with other disabilities, including high-functioning autism, attention-deficit hyperactivity disorder, and speech and language impairment are now being identified at higher rates and occupy an aggregate "other" category within high-incidence disabilities" (Gage, Lierheimer, & Goran, 2012, p. 168).

Literacy

Literacy is a collection of cultural and communicative practices shared among members of particular groups. As society and technology change, so does literacy. Because technology has increased the intensity and complexity of literate environments, the 21st century demands that a literate person possess a wide range of abilities and

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competencies. These literacies are multiple, dynamic, and malleable. As in the past, they are inextricably linked with particular histories, life possibilities, and social trajectories of individuals and groups. Active, successful participants in this 21st century global society must be able to

•Develop proficiency and fluency with the tools of technology;

•Build intentional cross-cultural connections and relationships with others so as to pose and solve problems collaboratively and strengthen independent thought;

•Design and share information for global communities to meet a variety of purposes;

•Manage, analyze, and synthesize multiple streams of simultaneous information;

•Create, critique, analyze, and evaluate multimedia texts;

•Attend to the ethical responsibilities required by these complex environments (NCTE Executive Committee, 2008).

Metacognition (Metacognitive strategies)

Self-consciously monitoring one's own cognitive activities and the steps taken to reach desired or expected results (Ku & Ho, 2010).

Professional Development

A wide range of activities and interactions that can increase teacher content and pedagogical knowledge, improve teaching practice, and contribute to the personal, social, and emotional growth of teachers (Desimone, 2011).

Research to Practice Gap

The chasm between what is known as a result of research in education and what is practiced in the field (e.g., educational practice; Anderson & Shattuck, 2012).

Specific Learning Disabilities

(i) General. Specific learning disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

(ii) Disorders not included. Specific learning disability does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage. (Individuals with Disabilities Education Act, 20 U.S.C. § 1400)

Students at Risk

Students performing significantly below their peers academically and who are considered to have a higher probability of failing school or leaving school before graduation (Hidden curriculum, 2014).

CHAPTER II

REVIEW OF THE LITERATURE

In this chapter, the researcher provides a review of the literature on the importance of professional development on literacy instruction for content area teachers. In the first section, the researcher discusses content area literacy instruction and reviews the literature to identify effective components that are essential in order to address adolescent content area literacy needs. Specifically, the researcher reviews literature on: (a) explicit comprehension strategy instruction, (b) explicit instruction on disciplinary literacy instruction, (c) engagement, and (d) culturally responsive teaching. In the second section, content area teacher attitudes, knowledge of, and use of literacy strategies are reviewed. In the third section, the researcher reviews the literature on PD as a tool to address the problem of the study: effective supports for content area teachers. Effective PD components are identified and PD specifically for content area teachers is discussed. In the final section of this literature review, the researcher summarizes the literature reviewed and connects it to the current investigation.

Content Area Literacy

Part of the reason that adolescent literacy outcomes are so low and there is not much growth in their literacy growth from year to year could stem from the fact that researchers do not completely agree about what literacy instruction for adolescents should look like in the content areas. Since the early 1900s, content area literacy instruction has drawn the attention of researchers as American education philosophies moved from memorization and rote learning to meaningful and purposeful learning.

Today, attention continues to be drawn to the topic as increased accountability and higher standards drive reform.

Content area literacy continues to be a divided field, although initiatives such as Common Core and recent research have created a catalyst for the field to begin to blur the lines that divide those with philosophical differences. Some researchers in the field argue that content literacy is content specific and that different literacies are required to comprehend and interpret different types of content specific text. For example, Watkins and Lindahl (2010) suggest that teachers must target specific content area literacies in order to help English Language Learners (ELL) master content areas effectively. These researchers argue that many ELL students lack academic language proficiency, and that content specific literacy strategies are necessary if teachers are to support all students' access to the curriculum. Shanahan and Shanahan (2008) support this belief by citing research results indicating that the literacy skills of content experts are "highly specialized and content specific" (p. 57), and that generic comprehension strategies alone are insufficient to improve the learning outcomes for adolescents in the middle and high school years. However, the authors also stated that, "scientific research evidence is not yet sufficient for demonstrating the effectiveness of disciplinary literacy instruction at improving either literacy achievement or subject matter success" (p. 14).

Kearns and Fuchs (2013) also question the use of strategy instruction as the sole intervention for students with disabilities. In a review of literature published by the Council for Exceptional Children, the authors concluded that although cognitive strategy instruction does have value for students with disabilities, there is an "indisputable need for alternative methods of instruction…for the student population for whom academic

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instruction, including differentiated instruction -inspired skill based instruction- is ineffective"(p. 23).

Yet other researchers, especially those subscribing to a more *cognitive approach,* argue that cognitive strategies used to comprehend text are the same regardless of the content areas in which they are used. Kamil (2003) supports the notion that adolescents who struggle with reading have not mastered the basic cognitive processing skills necessary to comprehend text. Many researchers have documented that when compared to more successful adolescent readers, those who struggle with reading are considerably less strategic when they read (Parris, Lipson, & Wixson, 1982).

The research base supporting strategy instruction is strong and dates back to the early 1900s (Moore, Readence & Rickelman, 1983). In its 2000 report, the National Reading Panel emphasized explicit strategy instruction as an important part of adolescent literacy reform. Numerous reports and briefs followed citing similar evidence: *Improving Adolescent Literacy; Effective Classroom and Intervention Practices* by What Works Clearinghouse (2008); *What We Know About Adolescent Literacy* (Hasselbring, 2007) by the International Center For Leadership in Education; and *Adolescent Literacy* by the International Reading Association (2012). All of these reports mention strategy instruction as an important and necessary aspect of helping students who are struggling with literacy improve their comprehension of content area material. Further, research by Moss, Schunn, Schneider, McNamara, and VanLeh (2010) established that learning gains of students were found to be associated with activation of specific brain areas after strategy instruction increased strategy usage. In this study, the brain activity of 15 native English university students were monitored while they read material related to the study

of physics. After baseline measurements were gathered, the students were provided 90 minute sessions on how to self-explain using iSTART reading strategies. The iSTART strategies for increasing reading comprehension include: comprehension monitoring, paraphrasing, elaboration bridging, and predicting. Brain imaging results indicated increased brain activation after strategy instruction. For example, the strategy "self-explanation" showed greater brain activity than re-reading for comprehension. Although this study was not conducted on struggling youth, in light of current reform initiatives, useful inferences can be made to guide the development of programs for adolescents who struggle with reading.

Despite its strong research base in improving overall comprehension, strategy instruction alone has not yielded the desired outcomes of increased literacy rates for adolescents, despite the financial investments that have been poured into increasing literacy outcomes for struggling youth. Some in the field are now considering the importance of integrating content area reading and disciplinary literacy into content area literacy. According to a synthesis and critique published in the *Journal of Adult and Adolescent Literacy,* Fang (2012), stated that these different philosophies can be organized in the following philosophical categories: cognitive approach, socio-cultural approach, linguistic approach, and critical approach. Fang described each approach, and outlined key assumptions, and recommended practices for each. However, the author suggested that in order to move past the current stagnated adolescent literacy rates of students in the United States, current researchers should embrace a "synergy of approaches" (p. 107). The author stated that each of these approaches allows teachers to tailor instruction to individual student needs, and that all four approaches are intertwined,

and cannot be viewed as mutually exclusive to each other; other authors support this claim (Faggella-Luby, Graner, Deshler, & Drew, 2012; Flippo, 2001). Fang also stated that additional research needs to be conducted with this belief in mind.

Faggella-Luby et al. (2012) described this debate as a split between two philosophical principles: disciplinary literacy and general strategy instruction. In their analysis, the authors emphasized the needs of students with disabilities. The authors argued that although disciplinary literacy can in fact help in the assimilation of content area material, for those students who are already struggling, the foundational skills required to use these strategies are not present. The authors also noted a lack of research to support the push toward discipline specific literacy instruction. Of the 150 research articles chosen for the review, only twelve were coded as focusing on disciplinary literacy strategies and of the twelve, only one was in a content area that did not include a focus on literature. The authors noted a need for further study to examine the effects of disciplinary strategy instruction in the areas of science, social studies, and other non-literature based subjects, particularly for students with disabilities. The authors concluded that strategy instruction in the content areas has a strong research base as an effective intervention for struggling students. They argued that sole reliance on discipline specific strategies is not supported by the research, specifically when focusing on students who are already at risk in the middle and high school years. Ultimately, Faggella-Luby et al., (2012) suggested the use of both types of instruction and stated that this codependence might ultimately hold the most promise for meeting the needs of all learners.

Many researchers and practitioners at the forefront of the field of adolescent literacy believe that students and teachers can benefit from the amicable cooperation of

the two types of schools of thought (e.g., Brozo, Moorman, Meyer, & Stewart, 2013; Drapper, 2008; Faggella-Luby et al., 2012; Fang, 2012, 2014; Fang & Coatoam, 2013; Warren, 2012). These experts suggest that in the field of teacher education, collaboration needs to happen between literacy experts and content area expects. This collaboration is now essential as high standards and disciplinary literacies are recognized by the Common Core Standards and the Florida Standards.

In the current climate of higher standards, the lack of progress for adolescents, particularly those who are already marginalized by race or disability, is a major concern. The push toward more rigorous standards and higher content area literacy demands will place an increased need for students with disabilities to receive support from all their teachers. In today's digital age, students who cannot understand or evaluate text cannot fully participate or compete in the job market are more likely to be unsuccessful with or unable to seek opportunities in higher education institutions or even participate effectively in the democratic process. According to Acy-Ippolito, Steel, and Samson (2008), the issue of adolescent literacy is one of social justice. According to the authors, "literacy liberates us from dependence on received wisdom and allows us to find and weigh evidence ourselves... simply put, literacy is a cornerstone of our freedom" (p.1). Content specific strategies to increase disciplinary literacy and cognitive approaches need to be taught by all teachers in the middle and high school years and research using this *blended approach*, which includes both generic strategies and discipline specific strategies, needs to be built. A blended definition of content area literacy and its approaches and philosophies along with PD will be required in order for teachers to better support struggling students.

Regardless of the philosophical stance researchers take when defining content area/disciplinary literacy, as a whole, the body of research in the field has identified a core of essential components that should be embedded into content area literacy instruction in order to improve and increase the literacy outcomes of adolescents struggling with literacy and reading. Apart from being recognized as essential components by researchers and experts in the field, these components have been highlighted in several pivotal and recent reports, starting with the Report by the National Reading Panel (2000), the Institute for Educational Sciences (2002), and Reading Next (2004). The International Reading Association, Center on Instruction and the Alliance for Excellent Education have also published reports in the field of adolescent literacy and have provided a framework to guide instructional practices for adolescents. These common components can be sorted into four major categories which include:

- Explicit comprehension strategy instruction

- Explicit instruction in content area disciplinary literacy instruction

- Engagement (e.g., discussion oriented instruction)

- Culturally responsive (the need for high standards/motivation/fairness)

Explicit Comprehension Strategy Instruction

According to a report by the Institute of Educational Sciences (IES, 2008), teachers of adolescents must provide direct and explicit comprehension strategy instruction to adolescents. The report makes this claim after reviewing experimental, correlational and longitudinal studies which met the high and rigorous standards of IES, by reviewing trends reported by the National Assessment of Educational Progress (NAEP), and by the analysis presented in the Reading Next report (2004). After

reviewing the evidence, the panel writing the practice guide stated that the level of evidence supporting the recommendation to teach comprehension strategies to adolescents was strong particularly since they recognized that reading and understanding what is read is a complex process that continues to develop well beyond the elementary years.

The Rand Study Group (2002) defines reading comprehension as "the process of simultaneously extracting and constructing meaning" (p.11). Snow and Biancarosa (2003) have a similar definition, and Harris and Hodges (1995) define it as "intentional thinking during which meaning is constructed though interactions between text and reader" (p. 207). Some adolescent readers struggle with this *intentional thinking* or strategy use and require targeted interventions that explicitly teach them which strategies to use and when to use them (Alvernamm, 2002; Kamil, 2003).

Teaching students, especially those with mild disabilities, reading comprehension strategies has long been an effective way to increase the reading comprehension of struggling readers. Although, historically, research has documented the resistance of content area teachers to teach these strategies (e.g., Ness, 2009), these strategies have had a long history in the research as favorably impacting the reading abilities of students who have fallen behind. Furthermore, although the research in comprehension instruction for adolescents, specifically in content area settings and with disciplinary literacy practices is thin, in the field of special education, researchers have long documented the importance of teaching cognitive strategies to students with learning disabilities. For example, in a comprehensive literature review by Gersten, Fuchs, Williams, and Baker (2001) on comprehension instruction for students with learning disabilities, these authors concluded

that strategy instruction, especially the use of multiple strategies with modeling and extensive feedback, yield promising outcomes for students with learning disabilities. The review covered studies that examined the use of comprehension strategy interventions on students with disabilities. To select studies for this review the researchers used the bibliographies from three meta-analyses, conducted a manual search of targeted journals. Lastly the researchers consulted four experts in the field of special education or reading comprehension to ensure that no relevant studies that been overlooked. Criteria included studies that had (a) at least one quantitative measure of reading comprehension, (b) students with disabilities as their primary focus, (c) used an experimental or quasi-experimental design, (d) used school age children, and (e) a publish date before June 1999. In their recommendations, the authors also stated that more research is needed on PD strategies that best support teachers with the implementation of these strategies.

Similarly, Berkeley, Scruggs, and Mastropieri (2010) conducted a meta-analysis of research conducted between 1995 and 2006 on reading instruction for students with disabilities. The researchers employed meta-analysis procedures to amalgamate research findings of studies that examined specific strategies aimed to improve the reading comprehension of students with disabilities. Database key-word searches, ancestry searches, and hand searches were used to identify studies where (a) the participants were in Grades K-12, (b) the study design was focused on improving the reading comprehension outcomes, (c) the study involved students with disabilities, and (d) the study had adequate effect size. The researchers identified 40 studies published between 1995 and 2006 that met their criteria. The review in total included 1,734 participants; 67% were male with a mean age of 16 years. Fifteen of the studies reviewed took place

in an elementary setting, 18 in middle school, and six in high school. After a thorough

analysis of the literature, the writers found an overall mean effect size of 0.65. According

to the authors, this figure was similar to the effect size reported by Swanson (1999) in a

similar meta-analysis of reading comprehension intervention studies conducted between

1972 and 1997. The conclusion the authors drew was that the teaching of reading

comprehension strategies continues to be an effective and necessary instructional

component for adolescents with learning disabilities to improve text comprehension.

In addition to studies that examine multiple strategy instruction, there are those

that focus on one particular strategy. Specific to special education, Kim, Vaughn,

Wanzek, and Wei (2004) conducted a review with a specific focus on the use of graphic

organizers as an effective way to improve reading comprehension for students with

learning disabilities, with favorable outcomes. Fisher, Frey, and Lap (2001) found that

training teachers to use think-alouds to teach eighth graders comprehension strategies,

improved student achievement. These "shared text interactions" are thought by many

researchers to be one of the top, most effective strategies to improve the outcomes of

struggling students. Other researchers in the field of comprehension instruction such as

McKeown and Gentilucci (2007), Bereiter and Bird (1985), Caldwell and Leslie (2010),

Ehlinger and Pritchard (1994), and Oster (2001), cite think-alouds as one of the single

most effective learning and teaching strategies that can help students learn to comprehend

what they read. This is because think-alouds allow teachers to model several

comprehension strategies simultaneously to help students develop metacognitive

strategies that enhance critical thinking, metacognition and learning (Berkeley,

Mastropieri, & Scruggs, 2011; Coiro, 2011; Ku & Ho, 2010). Lehr and Osborne (2006)

stated that comprehension strategies are procedures that involve active mental efforts which successful readers use with automaticity, before, during and after they read to construct meaning and interact with text.

There are numerous research-based comprehension strategies that can be modeled during a think-aloud such as: close reading (Fenty, McDuffie-Landrum, & Fisher, 2012; Helfeldt & Henk, 1990; Kinniburgh & Shaw, 2008; Raphael & Au, 2005), visualization (Brown, 2008; Lapp, Fisher, & Grant, 2008; Wilson, 2012) text previewing (Burns, Hodgson, Parker, & Fremont, 2011), and the use of context clues to name a few. These are strategies that have a strong research base in the area of special education and have been shown by research to improve the comprehension skills of adolescents with disabilities. However, Mastropieri, Scruggs, and Graetz (2003) stated that few strategies that are a staple in special education classrooms make their way to general education classrooms. This can potentially place struggling students and those with a disability in situations where they have difficulty accessing their education. Within the field of special education, strategy instruction in the content areas has a solid foundation with students identified as having learning disabilities (e.g., Kinniburgh & Baxter, 2012; Krawec, Huang, Montague, Kressler, & de Alba, 2013; Mastropieri, Scruggs, & Graetz, 2003; Tejero-Hughes & Parker-Katz, 2013).

In conclusion, it is important to note that researchers warn about the dependency on or teaching of one particular strategy and, instead, recommend that teachers become familiar with and build on a repertoire of different strategies to teach explicitly, model and support during their instruction. Content area teachers need PD on these strategies

and on how to support them with literacy integration within their content effectively and with fidelity.

Explicit Instruction in Disciplinary Literacy Instruction

In a report published by the Carnegie Corporation's Advancing Literacy Program (Lee & Spratley, 2010) on the challenges adolescents face when reading in the disciplines, the authors stated that most literacy initiatives recognize comprehension strategy instruction and remedial decoding interventions but fail to address the skills necessary to tackle the very particular demands that are required by the different content area textbooks. Moore, Bean, Birdyshaw, and Rycik (1999) also stated that model adolescent literacy programs are the exception, mostly because literacy instruction and disciplinary literacy is usually positioned solely within the English language arts. Today, with states and school districts gearing toward the Common Core, students will be expected to be literate in the areas of history/social studies, science, and the technical subjects, which all call for their own specific literacy standards. According to Lee and Spratley, effective content area instruction requires "teaching content knowledge and reading strategies in tandem" (p.16), and content knowledge includes the content specific strategies used to understand a specific discipline. However, research identifying very specific research-based disciplinary strategies along with reading strategies is for the most part in its development stage. However, researchers are beginning to define the research in this area. For example, Shanahan and Shanahan (2008) found distinct differences in the way experts in different disciplines think about text. For example, in a government class, a teacher might teach students to use a -what I know, what I want to know, and I have learned (KWL)-graphic organizer to preview the text to generate prior

knowledge on a topic in order to raise questions about the validity of the text. Questioning what you read in this way is a discipline-specific strategy in that field. For example, Shanahan and Shanahan (2008) found that historians question the origin of what they read and view historical documents as a possible interpretation of the truth. Conversely in chemistry, a teacher might teach students in her class to use the KWL chart to preview a text, identify what they already know about the topic and identify areas that they do not know and want to learn more about without questioning the text. The authors in this study found that readers in that discipline tend to have more confidence about what they read. As a discipline, chemists create questions when reading results, but unlike historians who might question the validity of what they read, chemists might ask questions that will guide them to "predict what would happen under similar conditions" (p. 51). Chemists, according to the authors, assume the information they acquire is factual and use what they are reading to build onto their prior knowledge of the topic. Historians on the other hand, compare what they read to their prior knowledge in order to determine validity.

As mentioned before, the research in disciplinary literacy is scarce, but there are a few studies showing positive results on student learning. Each of these studies revealed evidence of collaboration. For example, De La Paz and Felton (2010) used a quasi-experimental design to examine the effects of teaching discipline specific strategies - historical reasoning strategy and argumentative writing strategy - to 160 Grade 11 students for 150 minutes over the course of three days. Two teachers from two schools participated in the study; one agreed to have students in her class serve as the control and the other agreed to have her students serve as the experimental group. Students included

in the final participant pool had to meet eligibility criteria which included parental consent as one of the required conditions. Students in the experimental group received instruction on examining conflicting artifacts and opposing points of view in order to understand and build contextual knowledge about historical events. Writing and strategies for analyzing sources were taught and modeled by the teacher. These strategies were taught using teacher think-aloud and verbal scaffolding. Students in the comparison group did not receive instruction on historical reasoning. In their findings the researchers stated that when students are given explicit instruction on what it means to engage in disciplinary specific strategies, students can achieve high levels of proficiency as compared to those students who do not receive this support. It is important to note however that in the final pool of student participants there were no students identified as qualifying for special education or English for Speakers of Other Languages (ESOL). In a similar study, Reisman (2012) performed another quasi-experimental control design measuring the effects of a six month intervention using the *Read Like a Historian* curriculum with 236 eleventh grade students in San Francisco. The MANCOVA analysis in this study yielded significant effects on students' historical thinking and content knowledge, and showed comparable results in general reading comprehension for students with disabilities.

In addition to studies that use only disciplinary literacy strategies which are content specific, other studies have used a blended instructional approach. Guided Inquiry Supporting Multiple Literacies (GIsML) is a strategy that claims to blend generic reading strategies with disciplinary literacy strategies. Palinscar, Collins, Morano, and Magnusson (2000) investigated the use of this strategy with students who were identified

in Michigan as having learning disabilities. In this study, the researchers learned side-by-side with the teacher participants about how to implement Guided Inquiry supporting Multiple Literacies (GIsML) to engage and support students with learning disabilities in science. The researchers used video-tapping, observations, field notes, debriefing with teachers, and structured interviews to collect data during the study. The teachers implemented the strategy in science classes daily for 45 minutes to 2-hours a day for two to five weeks. Their findings revealed numerous positive outcomes including increased engagement, increased content learning, increased reading ability and increased amount of time a student spent in the science inclusion classroom instead of in a resource room where they receiving remedial reading instruction.

Scruggs, Mastropieri, Berleley, and Graetz (2010) conducted a research synthesis on content area instruction for students with disabilities and found that the field has very promising evidence-based practices to assist special education students with content area subject matter. Although the studies investigated did not include a specific focus on literacy, the practices which include (a) systematic, explicit instruction, (b) the use of learning strategies, (c) the use of special organizers, (d) hands on activities, and (e) peer mediation can hold meaningful promise in the context of literacy instruction in the content areas. This research synthesis included 70 studies with more than 2,400 student participants in middle and high school. Criteria for selecting studies included studies that involved students with disabilities in the middle or high school years for which standardized mean difference effect size could be computed. The overall effect size was 1.00, indicating that strategy instruction in the content areas is generally effective.

Pearson, Moje, and Greenleaf (2010) reviewed other strategies that claim to integrate discipline and reading in science. These strategies include Concept-Oriented Reading Instruction

(CORI), Guided Inquiry supporting Multiple Literacies (GIsML), In-depth Expanded Applications of Science (Science IDEAS), Seeds of Science—Roots of Reading, Reading Apprenticeship, Textual tools, and Summary and Critique. However, more research on supporting the teachers with the implementation of these strategies is needed along with research to investigate the effect these strategies have on students with disabilities and others marginalized by race, language or social/economic barriers.

Engagement

Although the field of student engagement is multifaceted and complex, the evidence is overwhelming. Whether research focuses on motivation from a social context or motivation from goal attainment, whether it is intrinsic or extrinsic or whether the engagement is academic, behavioral, cognitive or psychological, more than 20 years of research has established that the more students are engaged with their teachers and their school communities the more likely they are to master the material and learning objectives, graduate from school and attain their academic goals (Toshalis & Nakkula, 2012).

Wigfield and Guthrie (1997, 2000) stated that students' academic goals, dispositions and attitudes toward reading can impact the amount of effort they exhibit, the time spent on reading tasks and the level of concentration when interacting with texts. In a longitudinal study that assessed the intrinsic motivation of 130 children at different ages starting at age nine and going through to age 17, Gottfried, Fleming, and Gottfried (2001)

found that, overall, intrinsic motivation decreased over time. These researchers also noted that since there was a decrease in general, students who had lower levels during early childhood are likely to be at a greater disadvantage over time.

According to Alverman (2002), if teachers want to be effective in their literacy instruction, student engagement and student self-efficacy have to be addressed. In a review of the literature, Fredricks, Blumenfeld, and Paris (2004) investigated the benefits, impact and consequences of student engagement. In the review of what the authors recognized as being a sound representation of the literature and research in the field, the authors stated that different contexts can impact student engagement positively and negatively, that different classroom activities increase engagement, and that engagement is associated with overall school success and high school dropout rates especially as it relates to low achieving students in urban areas. Additionally, the authors identified the different types of engagement associated with having no impact with students. These types of engagement can be classified as: behavioral engagement, emotional engagement, and cognitive engagement. According to the authors' review of the concept, engagement is tied to motivation, goal setting and the ability to self-regulate.

Overall, there is a strong consensus in the field that student engagement is closely related to student success, not just in school, but to overall achievement and post school success. Common key components to increasing student engagement include: access to higher order learning, opportunities for reflective and interactive learning, opportunities for meaningful collaboration with peers and with teachers, opportunities for discussions with people from diverse backgrounds, and a supportive and nurturing classroom environment (Cooper, 2014; Gonzalez, 2014; Lee, 2014; Moller, Stearns, Mickelson,

Bottia, & Banerjee, 2014; NSSE, 2013; Reeve & Lee 2014; Trowler, 2010; van Uden, Ritzen, & Pieters, 2014). Lastly, Toshalis and Nakkula (2012) emphasize that although the field of student engagement and motivation is dense, it is important to recognize that there is "no single motivational pathway or type of engagement which guarantees academic achievement-each student is a unique blend of individual stories and needs, each differently positioned to have their story heard and their needs expressed…To productively appeal to those individual needs, customized approaches that differentiate instruction tend to work better than homogenizing catch-all techniques" (p. 4).

Despite the strong research base to support student engagement and motivation, research clearly documents that, overall, classrooms and schools are not implementing practices to increase engagement. In an observational study of secondary social studies classes, Swanson, Wexler, and Vaughn (2009) observed that students had opportunities to assess the text only 10% of the time during their classes. Students in this study had minimal opportunities to interact with the text beyond responding orally to teacher questions, which were predominantly focused on retrieval of information. Often, teachers in this study read the text and did the summarizing for the students, with little opportunities for dialogue or in-depth discussion of the topics. In a review of secondary literacy practices, the researchers found that most secondary teachers rely on reading the textbook and lecture to convey knowledge to students. There is very little student discussion, group work or use of higher order questioning. Comparable results from a survey of students by the NAEP (2013) showed similar practices in today's classrooms. The report stated that although students who reported using discussion in their classrooms scored higher in reading, 13% reported "never or hardly" using discussion to interpret

what they read, 19% reported using it once or twice a month, and 35% reported using it once or twice a week. Only 33% of students reported using discussion to analyze their reading daily or almost daily.

According to Guthrie, Anderson, Alao, and Rinehart (1999), active engagement "refers to the joint functioning of motivation, conceptual knowledge, cognitive strategies, and social interactions in literacy activities" (p. 343). These researchers suggest that motivation during reading instruction is key to engaging students so that they develop into life-long literacy learners. In order for active student engagement to occur and student motivation to increase, teachers need to deliver instruction effectively. Frey and Fisher (2010), in their work with the Gradual Release of Responsibility Model, suggest that teachers increase engagement of students in their classrooms by effectively planning to move through a gradual release of support. In this model, teachers communicate the instructional purpose and set background knowledge, provide explicit instruction, model the instruction, provide guided practice, provide practice with peer support, and finally move to the independent practice phase. Professional development that supports content area teachers' use of the gradual release model will increase student talk and engagement and opportunities for collaboration in the classrooms.

Culturally Responsive Teaching Practices

Culturally responsive pedagogy is an approach to classroom instruction that places awareness of students and their unique cultural backgrounds and perspectives as a prerequisite and essential component to learning. This awareness is crucial in light of the increased demographic changes in U. S. classrooms. According to Artiles, Kozleski, Trent, Osher, and Ortiz (2010), the demographics of today's classrooms are growing

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increasingly diverse day by day. Nieto (2010) stated that these changing demographics can often set students up for failure as home expectations and those of the popular culture collide and clash. This discontinuity between home expectations, student perspectives and teacher beliefs can often lead to erroneous beliefs about student potential (Klingner et al., 2005). The goal of culturally responsive education aims to ensure equal educational opportunities for all students by capitalizing on students' socialized patterns of behavior and learning instead of the traditional deficit model of instruction that often blames the student or their parents and only seem to disenfranchise students who are culturally and linguistically diverse and also those with special needs (Nichols, Rupley, & Webb-Johnson, 2000). Unsurprisingly, the research recommendations for classroom practices that support culturally and linguistically responsive instruction are similar to those that support increased student engagement and motivation. According to Callins (2006), in order for culturally and linguistically diverse students to reach full potential,

> instruction should be provided in ways that promote the acquisition of increasingly complex knowledge and skills in a social climate that fosters collaboration and positive interactions among participants. Such classrooms are *inclusive* in their emphasis on *high standards* and outcomes for all students, including culturally and linguistically diverse learners. Important features such as settings include *high expectations*, exposure to academically rich curricula and materials, approaches that are culturally and linguistically responsive and appropriate, *use of instructional technologies* that enhance learning and em*phasis on student-*

regulated, active learning rather than passive, teacher directed transmission. (p. 62)

Despite the vast amount of discourse and research to support the use of culturally responsive teaching practices since the 1960s, teachers and school staff lack clear models or direction for best practices to undertake and confront these issues (Griner & Stewart, 2013). Again, in this particular aspect of adolescent literacy instruction, the lack of teacher preparation can have an impact on the growth of adolescent literacy and their students' progression through the increased literacy demands of middle, high school and post-secondary education. According to Harmon (2012), "culturally responsive teaching is clearly situated within the discipline of literacy" (p.15) as culture and language intersect naturally almost at every point. Cumming (2013) stated that teaching students to "switch language" in order to find the correct word or phrase to learn versus expecting students to *replace* their language is an essential component of literacy development. Teaching students how this "switching" for understanding a particular discipline can assist in their ability to comprehend, interpret and define the world around them, while still using their own experiences and culture to add to or to question what they learn.

Finally, numerous studies in the field of special education and in the study of disproportionality have documented the reasons students, who are marginalized by race, disability, socioeconomic levels or language, drop out (e.g., Goodman, Hazelkorn, Bucholz, Duffy, & Kitta, 2011; Klingner et al.,2005; Schifier, 2011; Zablocki & Krezmien, 2013). These reasons can be as a result of a response to negative experiences with the school authority system and the perception that goals set for them are unattainable. Therefore, the narrow range of the high standards set by Common Core,

along with teacher perceptions of different cultures and cultural differences may present a series of complex problems for fragile student populations if teachers are not trained adequately. Preparing teachers for culturally responsive teaching will require PD where these issues can be openly discussed.

Content Area Teachers' Attitudes, Knowledge of and Use of Literacy Strategies

With the push toward higher standards, it is imperative to address this gap between research and practice and closely examine what the research states about content area teachers' attitudes toward teaching literacy in the content areas, their actual knowledge and training and use of these skills. Many studies have long documented content area teachers' reluctance to teach content area literacy. According to Cantrell and Callaway (2008), this low self-efficacy of content area teachers as it relates to content area instruction can have a negative impact with their instruction. In a study by Siebert and Draper (2008) of 16 teachers who participated in a yearlong PD program, high implementers exhibited higher levels of efficacy and low implementers exhibited a lower level of efficacy. Cantrell and Hughes (2008) found similar relationships between efficacy and content area literacy strategy implementation in their studies. Other researchers find that, overall, secondary content area teachers' attitudes about teaching content area literacy are overall unfavorable (Chambers Cantrell et al., 2008; Karr, 2011; McCoss-Yergian & Krepps, 2010; Ness, 2008). Fisher and Ivy (2005) add that teachers see themselves as teachers of content and that they are not convinced that special training in reading or literacy will help them convey that knowledge. Spencer, Carter, Boon, and Simpson-Garcia (2008) add that content area teachers believe that the responsibility of

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literacy instruction falls mainly onto the English/Language arts teachers. Still other researchers document that many content area teachers believe that students gain enough reading abilities in their elementary school years and that these skills are transmitted and can be applied to understand content area text in the later grades. Teachers believe that students should come into the middle school years with enough ability to comprehend text in their content areas. Content area teachers in middle and high school perceive reading instruction to be of a remedial nature and a basic skill instruction that needs to be taught by a specialist in the field of reading and literacy (Hall, 2005; Ness, 2009; Trabasco, & Bouchard, 2002). These research findings can be detrimental to middle and high school students, especially those who are ELLs or that have been marginalized due to race, social economic backgrounds or disability and who are, statistically, already at risk.

Nouri and Lenski (1998) stated that teacher attitudes toward content area literacy instruction can be the most important factor impacting student achievement, as these teacher attitudes can have a meaningful impact on teacher practice. Ness (2009) reported in her study that teachers, although attending sessions to prepare them, are spending on average of only 3% of their time on literacy instruction, a discouraging fact considering that reading experts have clearly stated that this type of instruction is imperative for student success. Ness (2008) also found that explicit reading comprehension instruction was not a significant approach teachers used in assisting struggling learners.

Fisher and Frey (2008) suggest that the limited use of strategies stems from the teacher's lack of understanding about comprehension strategies or of content specific literacy strategies, and these beliefs ultimately not only have a strong impact on which

strategies they implement and how they perceive literacy in relation to content area knowledge, but also on how they interact with their students. In a study by Hall, Johnson, Juzwik, Wortham, and Mosley (2010), the authors found that teachers can use language in their classrooms to position students and not only influence students' developing identities but also limit which identities are available to them. Hall et al. also found that there were significant variations in the level of instruction and support students received as teachers identified the roles of good readers, poor readers or emerging readers. Students with higher levels of achievement were found to receive higher levels of support, as teachers' perceived lack of achievement as a lack of effort from those readers who were poor or developing. This concept that teachers can impact a student's identity is also discussed in the work of Gee (2001) and Moje et al. (2004).

Lastly, Siebert and Draper (2008) analyzed literature in the field of mathematics and found that the core problem with documents addressing content area literacy in mathematics, including text books and practice briefs, is that they "failed to properly acknowledge the influence of the discipline of mathematics on what counts as text, reading, and writing" (p. 235). The authors suggest this failure to acknowledge the literacies specific to each discipline in the research of strategy instruction is foundational to teachers' resistance in implementing generic reading strategies into their practice.

Professional Development Best Practices

Since the passing of the Elementary and Secondary Education Act in 1965, teacher professional development (PD) has been one of the key components of educational reform. PD has grounded itself in the literature as one of the most effective ways to battle instructional inequality for students with disability and poor performance.

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Yet as a nation, we have failed to use PD effectively. As a profession, we continue to grapple with the gulf between the best practices identified through the research and practice as it pertains to PD (Darling-Hammond et al., 2009).

For example, research has identified collaboration as an essential component of PD opportunities for teachers, especially teachers serving students who struggle, including students with disabilities. In a study by Bryant, Linan-Thompson, Ugel, Hamff, and Hougen (2001) examining the effects of PD for middle school general and special education teachers when implementing reading strategies in inclusive settings, teachers identified collaboration as an essential component for implementing strategy instruction with their students. Despite findings like this, teachers in the United States report little opportunities for professional collaboration and sharing of practices, especially in the area of content area literacy. Additionally, nine out of 10 teachers report that the PD they attend is in the form of short term conferences or workshops; 57% reported receiving less than 16-hours (Darling-Hammond et al. 2009) despite the fact that researchers have found that less than 14-hours of PD will have no statistical impact with student achievement and that ongoing and sustained PD is essential to school reform and student learning (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

In a 2001 study, Garet, Porter, Desimone, Birman, and Yoon conducted a large scale empirical comparison of the effects of different characteristics of PD on teachers' learning. In their national study of 1027 teachers, the authors examined the relationship between the PD characteristics and the effect they had on teacher outcomes. Teachers from different states who attended Eisenhower funded PD activities participated in the survey and the researchers reported a 72% response rate. Results showed that a six

month PD had positive effects on teacher learning based on self-reported data provided by the 1027 teachers. The teachers reported the following components as the most impactful: a focus on content knowledge, opportunities for active learning, coherence with other learning activities, duration and type of activity (workshop vs. study groups), and collective participation of teachers from the same school, grade or subject.

Similarly, in a study examining a PD model for helping schools implement Common Core, Bolen, Davis, and Rhodes (2012) found that implementing PD that is content focused, data driven, and ongoing, is recognized by the leadership in the school, is standards and strategy based, has follow up, is consistent, provides support with feedback, provides access to instructional materials and has statistically significant increases on teacher knowledge and strategy usage. Promising practices in PD are identified by many researchers. For example, Desimone (2009), in an article published in the *Educational Researcher* identifies content focus, active learning, coherence, duration and active participation as the key features in PD. Later, Smith (2010) used these core features to identify activities that impacted teacher learning and student outcomes. Professional development with multiple workshop sessions and professional learning communities were among the activities related to the highest depth of learning among teachers (Stewart, 2014), showing that expert model PD opportunities were among the least effective of PD practices. Likewise, McLeskey and Waldron (2002) found that traditional "sit and get" PD practices are not effective when schools are attempting to meet the needs of students with disabilities in inclusive settings. These authors provide a description of effective PD practices that support general education teachers with the demands of meeting the needs of students with disabilities in the general education

classrooms. Some of the components described include PD that is tailored to each school, PD that addresses teacher beliefs, and PD that addressed the needs of all students, those with and without disabilities.

As mentioned by Wei, Darling-Hammond, Andree, Richardson, and Orphanos (2009), although there is little controversy today as to what constitutes effective PD, it is evident that there are apparent gaps as it relates to implementation of these practices. This places teachers in a vulnerable position as Common Core Standards come into full implementation during the 2014/2015 school year (Marrongelle, Sztajn, & Smith, 2013). Additionally, the concern of how to meet the increased academic demands of already struggling students and those with disabilities as they confront Common Core, have not been addressed by the PD research. According to Hanover Research (2012), PD will need to play a crucial role in making the transition into a more rigorous curriculum for struggling students. In their investigation of PD programs that support teacher implementation of Common Core, the report identifies assessment literacy training, time for professional collaboration, continuous and sustained opportunities for learning, exposure to research in disciplinary and cross-disciplinary knowledge and strategies and teacher leadership training as essential to teacher and student success with the Common Core standards.

In a time when Common Core will require significant changes in what is expected from teachers and students, the status quo will not suffice. For example, in a recent study by Darling-Hammond et al. (2009), these researchers reported that while 90% of teachers participated in PD, most reported that the experience was totally useless. This is problematic in light of impending reform initiatives. In a 2012 study by the MET

Project, the largest study of instructional practice and its relationship to student outcomes, trained observers were used to evaluate 7,491 instructional videos from 1,333 teachers. The researchers noted that the majority of teachers were not providing instruction that would encourage or stimulate critical thinking. Professional development is needed to prepare teachers to adequately prepare students with needs for the increased academic challenges they will meet with the implementation of the Common Core Standards.

Content area literacy instruction requires teachers to recognize that everyone must address literacy if adolescents are to improve their outcomes. Although Shanahan and Shanahan (2008) claim that we have to move away from the old "every teacher is a reading teacher" mentality, because not everyone can understand the complexities of reading as a reading expert can, they do recognize that every teacher must address and support the literacy needs of students throughout the middle and high school years. The Shanahans believe that there is a progression of reading development that begins with early literacy where students learn how to read, then gradually students move through the intermediate literacy phase and finally on to the disciplinary literacy where they learn how to adjust their reading to meet the specific needs of the discipline in which they are interacting. The more difficult the literacies become, the more complicated and less general they become. According to the authors, "given the range of student abilities and the difficulty in leaning more difficult routines, it is no wonder that teachers fail to teach these aspects of literacy at all" (p.45). Teacher training in disciplinary literacy, the authors believe, will be pivotal in improving literacy instruction. To that end, Shanahan and Shanahan (2008) conducted a study with the support of the Carnegie Corporation to investigate the disciplinary literacy habits of individuals from different disciplines. As a

result, Shanahan and Shanahan said that they began to "rethink the basic content-area literacy curriculum that needs to be taught to pre-service teachers in secondary education" (p. 57). In their work, which led to collaboration among content area experts and reading experts, Shanahan and Shanahan noted the importance of this partnership in their process. This research has implications for PD that occurs at schools.

Tying it All Together

Literacy is a matter of social justice and, without it, struggling adolescent students are at a political, social, and economic disadvantage (Nieto, 2002). Adolescent literacy progress in middle and high school has made minimal advancement in the United States as alarming numbers of students fail or drop out of school. As a result, new legislation and educational reform models such as Common Core are gearing up to increase educational standards and accountability measures for adolescents. The focus on school to career readiness has also led to increased level of accountability for schools and the teachers who serve adolescents. This push toward higher and more rigorous academic standards will no doubt place a fragile group of students with and without disabilities in a challenging position if they are not adequately supported by all their teachers.

Additionally, the push toward accountability and the implementation of teacher value-added evaluation systems in Florida will now require teachers who already feel unprepared to meet the literacy needs of struggling youth in the content areas, to teach disciplinary literacy to all students and help them achieve content mastery levels as evidenced by end-of-course examinations and standardized testing. All these changes contribute to conditions for a "perfect storm" which can place not just students at risk of failure, but also the teachers who educate them.

Scientific consensus in the area of research-based practices in education has not always led to improved instruction or improved student achievement especially in the area of content area literacy. Collectively, the field of adolescent literacy has together identified key components that must be present in order to improve the literacy outcomes of student who struggle. These components include:

- The use of reading strategies

- The use of disciplinary strategies

- Engagement (motivation)

- Culturally responsive teaching practices (high standards and fairness)

However, researchers have also documented the lack of implementation of these research-based practices, noting an obvious gulf in the connection between research and practice in content area classrooms. Professional development for content area teachers of adolescents through the years has attempted to bridge the research to practice gap in order to attempt to improve teacher practice and student learning outcomes. However, research that looks closely at these efforts shows that there has been little progress in bridging this gulf. Professional development activities for teachers of content area continue to be piecemealed, are not cohesive, provide little support or feedback and disregard content specific pedagogy.

One of the reasons reform initiatives often fail is because they are not adequately supported. As a result, struggling students have suffered the consequences that stem from lack of preparation. The literature makes a strong case the PD, when learner driven, can help teachers prepare and collaborate in order to address personal beliefs about struggling students and about literacy in the content areas, collaborate and plan for

instructional challenges, help establish organizational structures in schools to aid in the establishment of successful reform efforts, and ultimately support all students and their progress so that they may attain their educational goals.

CHAPTER III

METHODS

In this qualitative study, an exploratory case study design was used to examine the responses that high school content area teachers had to EIE (exploratory, investigative, and experimental) professional development. The study examined content teachers' responses to EIE professional development specifically describing what they considered to be valuable and useful aspects of the different components of the experience. The purpose of this chapter is to present a review of the methods used to investigate the research questions in this study. This chapter begins by revisiting the research questions, followed by the research design, the stages of the study, a description of the setting and participants, and the data collection tools and data analysis procedures. Finally, the chapter concludes with a brief synopsis of the main topics in the chapter.

Research Questions

The literature on adolescent literacy in the content areas clearly establishes the need for teachers to implement literacy in their content area instruction to address the historical adolescent literacy achievement crisis and the fact that teachers feel they need additional support to do so. Additionally, most of the research in the field of professional development (PD) for content area teachers focuses on supporting teachers in their use of generic reading strategies in content area instruction. However, research is scarce on how PD can support teachers with familiarizing themselves with disciplinary literacy strategies or how it can support them with the implementation of these strategies and specific methodologies. Therefore, this study examined content area teachers' responses to an explorative, investigative, and experimental PD and also teachers' self-perceived

knowledge of content area and disciplinary literacy practices before and after the EIE professional development.

Specifically the research questions are:

1. How do high school content area teachers in their descriptions of teaching practices, observations of their practices, and the outcomes they anticipate for their struggling students in content literacy, respond to an exploratory, investigative, and experimental professional development experience?

1a. What professional development practices do content area teachers report as most useful as they explore, investigate, and experiment with literacy in their content areas in order to support struggling students, including students with disabilities?

2. How do high school content area teachers describe their understanding of disciplinary literacy strategies for struggling students, including students with disabilities, before and after a program of exploratory, investigative, and experimental professional development?

Research Design

Hill, Beisiegel, and Jacob (2013), in their analysis of PD research in education, have made it clear that "randomized trials…have not enhanced our knowledge of effective program characteristics" (p. 476) and, as such, has left those in the field "without guidance" (p.476). As a result, Hill et al. (2013) outlined a framework for the study of PD. Framed in stages, the first stage (Stage 1) consists "of a brief, one-site pilot to ensure feasibility of the program…during the pilot, changes in program features could be assessed in successive sessions or with subgroups of teachers, with new permutations

and adaptations emerging via feedback from both teachers and developer observations"
(p. 479). This part of the research needs to record both researcher and teacher
perceptions, should be brief, and should be conducted with a small sample of teachers.
The researchers explained that this stage is essential before moving to Stage 2, the stage
that requires randomized clinical trials that "hold the basic program content constant" (p.
480). The Stage 1 framework guided this research and an exploratory case study design
was used to investigate the research questions.

Rationale for Selecting Research Design

According to Mills, Durepos, and Wiebe (2009), exploratory case study
methodology is often used when preliminary data need to be established to explore
relatively new areas of scientific investigation in order to formulate valid hypotheses and
to establishment research questions. This description of exploratory case study aligns
with the Hill et al. (2013) article that suggests that Stage 1 research be exploratory in
nature in order to define the program features to be studied in Stage 2. According to Hill
et al. (2013), during Stage 1 the researcher collects data that will facilitate and inform
changes in program features. An exploratory case study design allowed the researcher to
collect multiple data sets that not only helped to answer the research questions, but also
helped to drive the EIE PD sessions in order to build onto or change program features to
create PD opportunities unique to the participants, their schools and communities, and
their students. An exploratory case study design enabled the researcher to document
teacher responses as they moved through the exploratory, investigative, and experimental
components of the PD. The researcher, through observations and discussions, was able
to document whether the professional development experience produced the set of

outcomes the teachers had desired (e.g., understanding of literacy implementation in the content areas, increased knowledge of generic and content specific literacy strategies, knowledge of addressing the needs of struggling learners). Another advantage of the research design was the close collaboration between the researcher and the participants so that the researcher was better able to understand participant views of reality and the context in which they are situated (Baxter & Jack, 2008). For the purposes of this study, this close collaboration is crucial for the development of the PD program through the EIE process.

Hill et al. (2013) stated that researchers need to execute "more rigorous comparisons of professional development designs at the initial stages of program development and use information derived from these studies to build a professional knowledge base" (p. 476). It is this recommendation that drove the approaches used in this study. The findings of this study may help develop a foundation for more rigorous work and also provide insight for teachers, school administrators, and support providers as they seek ways to support content area teachers as they transition into increased literacy demands and disciplinary literacy practices.

Phases of the Study

This qualitative study was divided into three phases: Questionnaire/Observation/ Interview 1, PD Implementation, and Questionnaire/Observation and Interview 2 as outlined in Table 1.

Table 1

Phases of the Research

Phase	Activity	Description
Questionnaire/ Observation/ Interview 1 (Phase 1)	Distributed questionnaire before the first observation	Four-part questionnaire with questions about teacher knowledge of and use of specific reading comprehension strategies and teachers' perceptions of PD.
	Conducted interview 1	The interview documents teachers' experience with PD geared toward literacy in their discipline and also their experiences with literacy instruction in their content area.
	Conducted observations	Recorded observable evidence in teacher practice or artifacts about whether the teacher or students used or were guided in the use of these specific situations and strategies.
PD Implementation (Phase 2)	Conducted EIE PD, which cycles among exploration, investigation, and experimentation of solutions.	Observations and data collection that began with one initial 6-hour Saturday session followed by PD sessions, two one-on-one sessions. Data were collected via field notebook, teacher feedback, focus group discussions and observations when appropriate.
Questionnaire/ Observation/ Interview 2 (Phase 3)	Distributed questionnaire after the last observation.	Four-part questionnaire with questions about teacher knowledge of and use of specific reading comprehension strategies and teachers' perceptions of PD.
	Conducted interview 2	The interview documented teachers' experience with the EIE PD and also their progress with literacy instruction in their content area since the beginning of the PD sessions.
	Conducted observation	Observation recorded observable evidence in teacher practice or artifacts about whether the teacher or students used or were guided in the use of these specific situations and strategies.

Each phase employed multiple tools and multiple data sets were collected that were used for triangulation of data and information for reporting findings. In the first phase, Questionnaire/Observation/Interview 1, a questionnaire was distributed to select content area teachers in the school where the study was being conducted (Appendices A and B). The questionnaire sent to the teachers was used for three purposes. First, this tool helped the researcher identify the research participants. This section asked the teachers for the following information: (a) subject area certification; (b) subject area in which they are currently teaching; (c) number of years teaching; (d) number of years teaching current content; (e) educational background; and (f) the numbers of struggling students, including those with disabilities, in their classes. The criteria used for selection of participants will be discussed in the participant section of this chapter.

The questionnaire in this phase also served a second purpose. The questionnaire guided the researcher's *look-fors* that framed the observations and field notes of the selected participants (Appendix C). The researcher's purpose for the observations was to look for evidence of student work that showed the use of or learning of content area/disciplinary literacy strategies and also to look for content area/disciplinary literacy strategies used by the teacher before, during and after her lesson, specifically, but not limited to, those listed on the questionnaire.

Finally, the questionnaire helped the researcher support the teachers as they structured future PD sessions. As part of the EIE cycle, teachers used their collective voice from group discussions, the teacher reflection tool and this questionnaire to identify and select the topics they explored further during future whole group sessions. The interview, along with the observation and the completed questionnaires, established the

baseline data showing where the teachers were in relation to content area literacy knowledge and practices in their classrooms, as well as their experiences with PD to address the literacy needs of struggling adolescents.

The second phase, PD Implementation, consisted of conducting the PD sessions. Originally, the plan consisted of one initial 6-hour Saturday PD session followed by eight weekly 1-hour PD sessions, totaling 14 hours of professional development. However, due to scheduling conflicts the second and third sessions were cancelled. After scheduling make–up sessions the teachers met for a total of eight sessions totaling 21.5 hours of professional development.

Although this study is grounded in a constructivist-oriented framework, where the teachers explore new roles and develop their own instructional techniques which are specific to their teaching styles and their classrooms, the researcher initially provided guidance and resources from which they could begin to explore the area of literacy and how this area relates to their classrooms, their students, and/or their practice. The teachers explored these topics and strategies and used them to create their own systems of instruction and discovered their own techniques and strategies. Rather than a focus on transferring information to the teachers on how to implement specific strategies or interpret information, the researcher guided and provided high quality sources so that teachers were given opportunities to collectively generate information based on their readings, discussions, and their responses to targeted questions from the researcher. The researcher's role was to guide the integrity of the process by assisting teachers in attaining the understanding and resources they need, and by providing feedback and support.

The initial 6-hour Saturday PD session supported teachers as they explored topics in the field of content area literacy. This exploratory process introduced content identified by the Center on Instruction, National Institute for Literacy, and the Institute of Educational Sciences as being essential components of effective content area literacy instruction. These areas are (a) comprehension strategy instruction, (b) content area literacy instruction, (c) engagement/motivation/discussion oriented, and (d) culturally responsive teaching practices (which include high standards and fairness). The 6-hour Saturday session protocol, along with resources the researcher shared, is outlined in Appendix F. During this 6-hour Saturday session, the researcher provided teachers with quality research articles to read and discuss as a group. For the 2:00-3:00 pm session on comprehension strategy instruction, teachers were divided into groups of two and asked to prepare a short presentation on their assigned strategy. For the sake of time, the teachers were e-mailed the articles on their topic before the Saturday session. The topics were randomly assigned to the teachers and the researcher was available to provide support or clarification when needed during this week before the Saturday session.

During this section of the Saturday session, teams had the opportunity to prepare a brief presentation and discussion on their topic for the rest of the group. This previewing of strategies laid the foundational work for teachers to later decide which of the strategies or areas of literacy they wanted to investigate deeper during the weekly follow-up group sessions or independently as part of their individual sessions, and then later experiment with in their classrooms. Targeted resources for each topic that were shared by the researcher are available in Appendix F. Specifically, the researcher guided the teachers in their review of information on graphic organizers (text mapping and concept

mapping), think-alouds, close reading, visualization, text previewing, and the use of context clues to aid with vocabulary.

In accordance to the EIE framework, this initial Saturday 6-hour exploratory session helped the group build background so that the participants and researcher established a common language for, and understanding of, strategies they would later use. Building this common language was an essential component of social interactions and the constructivist approach upon which this study is grounded. During the last hour of this initial session, teachers and researcher discussed the PD session, openly discussed areas of improvement and collaborated on choosing a topic and or purpose for subsequent sessions based on teacher and student needs. The teachers agreed to use the next scheduled lesson to digest the information they explored during this session and to commit to a topic to investigate at the end of the next session. Immediately after this discussion the focus group discussion was conducted and recorded for the purpose of data collection.

During the first weekly session held on April 15, 2015, the teachers discussed the topics covered during the initial PD session. Teachers continued to explore and discuss the intersection of the components of literacy in the content areas and decided to focus on motivation for the investigative part of the EIE cycle. During subsequent whole-group sessions (starting Saturday, May 2. 2015, as identified in Table 2), the teachers further investigated motivation to identify elements of that topic and also how those elements could improve their teaching of literacy through content. At the end of each of the EIE PD sessions teachers used the reflection tool to guide discussions. During these discussions, they had the opportunity to provide any individual feedback to guide future

individual sessions. After planning had been conducted the researcher then used part two of the tool to guide the focus discussions. This same structure of topic exploration and investigation guided the whole-group sessions.

In addition to the whole group sessions, participants signed up for at least two one-on-one experimental sessions that could have included coaching, modeling, a peer-lesson study, or lesson plan reviews. E-mail and telephone support was available on an as needed basis. In this part of the EIE PD, the teachers investigated their practice within the framework of their exploration experience. Their investigation of their instructional practices within the scope of the topic of motivation as a tool to increase literacy in the content areas helped frame the discussions between the researcher and individual teachers.

Lastly, Hill et al. (2013) stated that PD development, in its early stages, should focus on program development and teacher practice. These authors stated that PD research that delves into linking PD practices to student achievement, are more often than not, problematic and often do not meet the research standards set by the field. This was also documented in a literature review by Duncan, Lee, Scarloss, and Shapley (2007). In their review of 1300 studies that aimed to connect PD to student achievement, the authors found only nine studies that met the high standards set by IES. Hill et al., in their recommendations, suggested that student outcomes should be investigated in Stage 3, only after Stage 1, which is done in short one-site pilots "to ensure the feasibility of the program" (p. 479) and Stage 2 which includes randomized clinical trials that hold the program features constant. During Stage 1 the authors suggest successive sessions until "new permutations develop emerging from teacher and researcher feedback" (p. 479).

Stage 2 would continue the work and hold program content constant while conducting randomized clinical trials. Finally, in Stage 3, only after program features have been solidified, should student learning outcomes be considered. For these reasons, teachers' reflections focused not just on topic exploration but also on program features, the structure of the EIE experience and the impact on their pedagogy as it related to literacy and content instruction. The researcher kept a field log to document these sessions and any contact with the teachers whether it was about the study or not. A timeline of the phases included in this study can be found in Table 2.

Table 2

Timeline for Phases of the Research

Date	Phase of Study	Activity/Description
March 16, 2015	Questionnaire/Observation/Interview 1	Distributed questionnaire
April 6 - 7, 2015	Questionnaire/Observation/Interview 1	1st observations
April 8-10, 2015	Questionnaire/Observation/Interview 1	Initial interviews
April 11, 2015	PD Implementation	Initial PD (6 hours)
April 14, 2015	PD Implementation	Individual sessions
April 15, 2015	PD Implementation	Weekly PD (1.5 hour)
April 20-28, 2015	PD Implementation	Individual sessions
May 2, 2015	PD Implementation	Weekly PD (5 hours)
May 6, 2015	PD Implementation	Weekly PD (1 hour)
May 11- 14, 2015	PD Implementation	Individual sessions
May 13, 2015	PD Implementation	Weekly PD (1.5 hour)
May 20, 2015	PD Implementation	Weekly PD (1.5 hour)
May 23, 2015	PD Implementation	Weekly PD (3 hour)
May 26-28, 2015	Questionnaire/Observation/Interview 2	2nd observations
May 29, 2015	PD Implementation	Weekly PD (2 hour) (Last focus group)
June 1-2, 2015	Questionnaire/Observation/Interview 2	2nd interviews
June 1-2, 2015	Questionnaire/Observation/Interview 2	Distributed questionnaire

Researcher Reflexivity

My interest in this research has developed over the course of several years. As a teacher, a reading coach, a curriculum support specialist, an assistant principal, and as a

doctoral student, I have always worked extensively with teachers as they work toward meeting the needs of students who are at risk for academic failure. Specifically, I have focused on improving the reading abilities of struggling adolescents, including those who are in special education, those who are culturally and/or linguistically diverse and/or those who come from economically challenging backgrounds. Within these experiences I have also attended many PD opportunities geared toward improving the reading outcomes of these youth. These opportunities have been in the form of conferences, certification classes, and in-service opportunities, just to name a few. I have also developed PD sessions and implemented some of the routines that were implemented in this investigation.

I have noted from the content area literacy PD literature and in my work that although sometimes there can be barriers to effective content area literacy instruction that stem from the teachers themselves and their beliefs about literacy instruction or lack of knowledge and awareness, more often than not, the greater issue stems from lack of teacher access to PD opportunities that are developed and driven by their own needs, are locally situated and locally supported, and which are collegial. Additionally, as the field of content area literacy makes a shift toward disciplinary literacy practices I have noted that teachers are still mostly engaged in PD activities that encourage them to use only generic or prescribed reading strategies.

I agree with Shanahan and Shanahan (2008) when they stated that expecting content area teachers to understand the complexities of teaching reading places the content area teachers in a position where they feel teaching students to read should be the responsibility of the reading/language arts teachers. Additionally, I agree with Faggella-

Luby, Graner, Deshler, and Drew (2012) that disciplinary literacy alone will not suffice for our struggling youth because students who are already struggling will not have the foundational skills required to use or understand these processes. This paradigm currently driving the discussion in content area literacy instruction is one of the driving forces behind this study. Additionally, the increased academic demands of higher standards along with the lack of growth of our adolescents in the area of literacy helped the researcher to develop the research questions for this study.

Setting

Data for this research were collected from teachers assigned to teach a content area subject at a high school in Miami Dade County, called "the school" for the purposes of discretion and anonymity of the teachers and school community.   The school is located in the far southwest area of Miami Dade County in a growing area of Miami surrounded by a large agricultural backdrop. The student population is 3070 students and the school serves Grades 9 through 12. Of the entire student population, 83% of the predominantly Hispanic population qualifies for free or reduced lunch and 92% of students are identified as *minority*, exceeding the state average of 57%. The Title 1 school is 68% Hispanic, 9% White, 20% Black, 3% Other, including those who identify with two or more races/ethnicities. During the 2013-2014 school year, the high school achieved a letter grade of C from the State of Florida. In reading, 37% of students achieved a score at or above proficiency and 45% of students were at or above proficiently in U.S. History examinations. The four year graduation rate was 72%, and for at-risk students the four year graduation rate was 57%.

Participants

The school employs 145 classroom teachers of whom 100% received an effective rating or higher on their teacher annual evaluations; 55% are identified as Highly Qualified Teachers as defined in the No Child Left Behind act and 95% are certified in the field in which they teach. Despite the large Hispanic population, only 15% of the teachers have ESOL endorsement. In addition, 10% of the teachers are reading endorsed, 67% have advanced degrees, and 78% have more than 5 years of experience.

According to Hill et al. (2013), Stage1 professional development research should "conduct more rigorous comparisons of design elements at the initial stages of program development" (p. 476). They also stated that a critical aspect of this phase is to "identify design best practices that work, rather than programs that work" (p. 478) and also recommend test-driven program features, which will later be investigated in Stage 2, with a small sample of teachers. Although the authors do not define what "small sample of teachers" is, for the purpose of this study, 12 participants allowed the researcher a manageable number of teachers to support, while also having a large enough group to allow for attrition without compromising the study. This number of participants also allowed the researcher to collect a manageable number of teacher reflections and observations as well as provide individual assistance to the teachers in order for them to examine, investigate, and experiment with different delivery methods and PD implementation techniques, with the ultimate goal of recording teacher responses to the development of the EIE PD and, hence, identifying the best practices that worked in this particular setting with these particular teachers. Of the 169 teachers at the school, 12 teachers were initially selected to participate in the study.

The criteria for teacher selection were teachers who (a) were certified in the content area in which they were teaching, (b) had received an annual evaluation rating of effective or highly effective, and, (c) were teaching struggling students, including those with disabilities in their classrooms. The rationale to support the first two criteria is based on the research by Shanahan, Shanahan, and Misichia (2012) that found that experts in various disciplines have specific ways of interacting with text. Hence, when conducting PD with teachers in their discipline, it is imperative that they bring their content knowledge and expertise to the discussion. A teacher with a certification in a different area from the one in that he/she teaches is not an expert in the field in which that teacher is teaching. Additionally, an effective evaluation rating increases the chances that a teacher will have other components of an effective classroom in place that would facilitate learning. For example, if a teacher has experienced problems with classroom management, enough that it would place that teacher at non-effective levels, the teacher might benefit from support with classroom management techniques before delving into the complexity of content literacy.

Finally, this study focused on adolescents who struggle with literacy, especially those with disabilities, as research has recorded that teachers express concern when addressing the needs of these students. As noted previously, 79% of all students with emotional/behavioral disabilities in the 10th grade failed to meet proficient levels on the 2014 Florida Comprehensive Assessment Test in reading (state examination), along with 80% of those with specific learning disabilities and 100% of those with intellectual disabilities. Hence, teachers with students who struggle in their classrooms, which include students with disabilities, were the teachers of primary concern in this study.

Although the questionnaire helped to identify those participants with college coursework in reading, advanced degrees in reading or certification or endorsements in the area of reading, these criteria was not used for selection or disqualification of participants, but rather as a means to make the groups as homogeneous as possible.

To select teachers for the study, the social studies and science departments were visited during their departmental meetings in order to ask possible participants to participate in the study. The researcher explained the study and a follow up email with the questionnaire were sent to these two departments. Later the math, English and special areas teachers were visited as well during their department meetings and the same follow up routines were implemented for these departments.

Since collaboration with other experts in the field is an essential component of PD for content area teachers, at least two participants from each department were required to move participants to the final selection stage. In order to keep the participant pool as homogeneous as possible, larger groups from one content area were given priority until the total number of participants had been reached. In this way, quota sampling was used until 12 total participants had been identified. The largest group was from the social studies department; eight teachers volunteered and qualified to participate. Then two science teachers were invited to participate, and lastly two math teachers responded with interest to volunteer. These additional two teachers met the criteria for the study which completed the total 12 participants required for implementation. From the 12 initial participants eight were from the social studies department, two were from the science department, and two were from the math department.

Although 12 teachers initially participated in the study, only 10 of them completed all the requirements (six from the social sciences, two from science, and two from math). In relation to the third criterion, all 10 of the participants who participated reported having students with disabilities in at least three of their classes. All participants reported having more than 22 students with disabilities in these classes, but some had more than others. Of these 10 teachers, two had a degree in special education (one had a bachelor's and one had a master's). Both teachers with special education degrees were currently hired as content area teachers and had been for at least the past five years, although both had worked as special education teachers at some point in the past. All of the 10 teachers, including the two with degrees in special education, reported having completed the district's required training hours in special education. Descriptions of the final 10 participants are presented in Table 3. Teachers' names were changed to protect the identity of the teachers. The teachers' gender was preserved.

Table 3

Participant Descriptions

Participant	Certification	Yrs Exp	Yrs Exp in Area	Current Area	Read End	Advanced Degrees
Jack	SS 6-12	7	7	Government	N	None
Emily	SS, SPED	12	7	World/Government	N	Master's in SPED
Nancy[a]	SS, SPED, ESOL	16	6	World/Government	N	Master's in SS
Jane	SS 6-12	10	7	World/Government	N	Master's in English Literature
Ann	SS	12	12	US History	N	Master's in World History
Samuel	SS, Gifted	19	19	US History	N	Master's in SS
Lara	GenSci 5-9, Bio	16	16	Physical Science	N	None
Patty	Bio	15	15	Biology	N	Master's in Leadership
Jill	Math 5-9	19	19	Algebra 1	N	Master's in Leadership
Aida	Geo	7	7	Algebra 1	N	None

Note. Yrs Exp = years of experience in the profession; Yrs Exp in Area = years of experience in current teaching assignment; Read. End. = reading endorsement; SS = social studies; SPED = special education; ESOL = English for speakers of other languages; GenSci = general science; Bio = biology; Geo = geometry.
[a] Teacher earned a Bachelor of Science in Special Education

Data Collection

Multiple data tools were used to collect data for each of the three phases of this study. This section begins by discussing the questionnaire, followed by the data recording tools used during the first and last Questionnaire/Observation/Interview phases, including the development and distribution of tools. Finally, the tools used to collect data during the second phase, PD Implementation, are discussed.

Questionnaire/Observation/Interview Phase

A questionnaire, observational field notes, and an interview were used in the first and last

Questionnaire/Observation/Interview Phases of the study. According to Yin (2014),

using multiple data sources are a trademark of case study research. Yin stated that

multiple data sources converge as part of the inquiry process in order for the researcher to

build understanding about the topic under study. During the

Questionnaire/Observation/Interview Phase of this study, the questionnaire, the

observations and interview were taken together to better understand teachers and their

response to the EIE PD and its usefulness for supporting them to work with struggling

students, including students with disabilities.

      Questionnaire description. With permission, this tool was developed with the

help of a similar tool used in a study by Park and Osborne (2006) on the content area

reading strategies used by Agricultural Science teachers. Although the tool was

developed specifically for the population in the Park and Osborne study, portions of their

questionnaire were appropriate for the purposes of this study. The sections that were

removed were replaced with questions that address the PD experiences of the participants

in this study and also investigate teachers' perceptions of content area literacy.

      The questionnaire for this study is divided into four sections (see Appendix B).

The first section asked teachers about their subject area certification, number of years in

the field, about advanced degrees, and whether or not they currently taught students at

risk, including those with disabilities. This information helped determine which teachers

were eligible to participate in the study.

Next, the questionnaire asked teachers about whether or not students are taught to do certain tasks to increase the likelihood that students will understand text. Some of these strategies include generating questions, monitoring comprehension, and making predictions. This part of the questionnaire will help the teachers and the researcher discuss the use of or lack of literacy during instruction in their classes.

The third part of the questionnaire asked teachers about their confidence with specific literacy strategies and the fourth section queries teachers' perceptions of PD and general literacy strategy use. Finally, teachers were given space for additional comments or thoughts.

Information gathered from this tool helped teachers conceptualize (a) whether literacy is being addressed, (b) overall group confidence with specific reading strategies, (c) overall attitude toward PD that addresses literacy in their content areas, and (d) their general attitude toward literacy in general. Although the focus of this study is to identify effective PD features which support content area teachers' in their use of literacy, information gathered from these questionnaires provided the teachers and researcher valuable information to discuss during the PD sessions. This tool, when distributed at the beginning and the end of the EIE PD, assisted the researcher in building a holistic understanding of the process and the responses of teachers to the experience.

Questionnaire administration. The survey instrument was e-mailed to all the teachers within the departments that were visited by the researcher initially. Participants were asked to email the completed questionnaire back to the researcher if they were interested in participating in the study. The questionnaire allowed the researcher to identify teachers initially and also to prepare information for discussion during the initial

PD session. For the second distribution of the questionnaire, the questionnaire was

distributed only to those 10 teachers who participated in and completed the study.

Teacher observation protocol worksheet description. Guest, Namey, and

Mitchell (2013) in their Sage manual for collecting qualitative data give detailed

recommendations concerning how best to collect qualitative observational data and also

address common pitfalls made in the field when observing an environment. According to

the authors, a researcher should organize before the observation by preparing: (a) a

general list of types of things to be observed or discussed, (b) a fill-in-the-blank template,

and (c) a template to summarize the key points.

During the first and final Questionnaire /Observation/Interview phases of the

study, the researcher conducted classroom observations of the teachers chosen for the

study. Observational field data was collected by the researcher during these classroom

observations using an observational protocol and worksheet (see Appendix C). The

researcher observations were guided by the list of instructional practices identified in the

literature and included in the questionnaire. Specifically, the researcher recorded

observable evidence in teacher practice or artifacts of whether the teacher or students

used or were guided by the use of these specific situations and strategies. For example,

number one on the questionnaire asks teachers whether students are taught to summarize

what they read in their classrooms. The researcher used this question as a guide to look

for evidence during the observation or in student work or in the classroom environment

that students were taught to summarize what they read. Recording of the evidence was

done by: (a) marking the number of times the researcher observes the teacher or students

enact literacy practices during instruction or learning, and (b) by checking off from a list

of observable artifacts. However, if the researcher found or learned of other artifacts that support literacy instruction, those were also added to the list and checked off.   Lastly, according to Schutt (2011), qualitative research is "distinguished by a focus on the interrelated aspects of the setting, group, or person under investigation- the case- rather than breaking the whole into separate parts" (p. 322). For this reason, although the researcher framed the observation with the use of the questionnaire, general observations were also recorded in the event other important findings could be identified during the observations.   The template includes space for researcher notes to record key points, questions or other pertinent information witnessed during the observation.

Interview 1. The interview in this phase was conducted with individual teachers during the course of a week. These interviews were recorded and transcribed and coded. The first interview asked teachers about their experiences with literacy instruction (e.g., What are the most difficult issues you encounter in relation to content area literacy?), and with professional development geared toward addressing the literacy needs of their students in the content areas (e.g., How has professional development in your area prepared you to address content literacy in your classroom?). The researcher used the reflection tool to develop the interview protocol worksheet. This tool guided the questions addressed with the teachers during their individual interviews. The interview protocol can be found in Appendix H.

PD Implementation Phase

During this phase the researcher collected multiple data sets. Field logs were used to record researcher reflection and field notes from any contact with the teachers. Additionally, focus group discussions were recorded at the end of each PD session. The

questions addressed during these focus group discussions were guided by the teacher reflection tool and any additional topics that arose from previous discussions. These transcribed discussions were recorded, transcribed and coded.

Field log. According to Mack, Woodsong, MacQueen, Guest, and Namey (2005), the researcher engaged in participant observation "tries to learn what life is like for an insider while remaining, inevitably, an outsider" (p. 13). The authors asserted that when researchers are participating in the community they are studying, field notes recorded in a field notebook are important components of this method. Key tips the authors suggest in their work are (a) to begin each notebook entry with the date, time, location and data collection event, (b) leave space for expanding notes as soon as possible, (c) use shorthand to quickly note what is happening and what is being said, and (d) cover a range of observations including events, contestations, body language, attitudes and informal conversations. These suggestions guided the field notes taken in the researcher's field notebook.

During the PD Implementation phase, the researcher kept a notebook for field notes specifically for this phase. The researcher made notes of all contact with the teachers participating in the study. This contact included spontaneous conversations, informal interactions or any other communication with participants. Notes were taken during all whole group sessions and during or immediately after the one-on-one sessions. The researcher noted specifics such as setting, the activities taking place during the session, and also the specifics of social interactions and topics discussed. Data collected recorded teachers' reactions during the exploration, investigative, and experimentation (EIE) phases of the PD as they identified topics for and planned the PD sessions and also

planned for instruction and implementation of identified strategies and techniques. Recording this process was instrumental in answering the research questions of this study. How the teachers made decisions about PD protocols, topics and/or design helped the researcher identify those qualities of EIE PD that will move forward to future research (Stage 2). Lastly, the researcher also kept a reflective section which recorded thoughts, questions or concerns that arose after the EIE PD interactions. These notes include researcher personal reactions to the interactions and on professional analysis and assessment of the notes in order to identify reoccurring themes, ideas or patterns.

Teacher reflection tool. In addition to the researcher field notes, the researcher used the teacher reflection tool (Appendix E) to guide planning sessions and focus group discussions. As part of the EIE framework, teachers' perceptions, values, needs and ideas drove the content of the professional development; therefore, this tool was an essential part of this process. The tool is divided into two sections. The first section guided the teachers' reflections on the topics addressed during each session, the structure of the sessions, and the relevance each sessions had for their practice and students. The second section addressed more specifically the questions used to guide the focus group discussions and the research questions of this study. These questions were addressed at each focus group discussion, enabling the researcher to note changes in their responses, if any.

Pilot Testing of Data Collection Tools

The observation protocol, questionnaire, interview protocol, and teacher reflection tool (which guided focus group discussions) were pilot tested to examine item validity and the practicality of administration. The first step of the pilot was to distribute the

observation protocol, questionnaire, interview protocol and the teacher reflection tool to two experts in the field of reading who also had experience with PD. Both experts had advanced degrees in the area of reading and both were providing professional development and currently working with teachers in different areas. Both experts had at least 15 years of experience with professional development and reading.

The tools were e-mailed to the experts and face-to-face follow up sessions were conducted with each individual expert. Each expert did not learn about the feedback the other expert had provided. Feedback on items was recorded in the researcher's field notebook and revisions were made. After the experts recommended changes and changes were made to the tools, a focus group session was conducted with content area teachers from another school in the area. This design-test-revise cycle helped refine the tools to make sure the questions were well understood and were appropriate and encompassing for the topic being studied. The following two sections will describe (a) the feedback and recommendations of the experts and (b) feedback and recommendations for the focus group. Table 4 below lists all the original tools as well as the revised tools and their appendix number.

Table 4

List of Tools in the Appendix

Tool Name	Appendix
Original questionnaire	**A**
Revised questionnaire	**B**
Original interview protocol	**C**
Revised interview protocol	**D**
Teacher observation protocol	**E**
Original teacher reflection tool	**F**
Revised teacher reflection tool	**G**

Expert Feedback

When the experts reviewed the original questionnaire (Appendix A), they primarily recommended restructuring the document to make it more user-friendly. For example, the original document did not include directions for the teachers that would explain the different sections to them (Appendix A). Both experts also recommended addressing readability of the document such as the use of parallel structure in the first section. Minor grammatical errors were also addressed.

Both experts recommended similar improvements on each tool. Primarily, both were initially confused as to the purpose of the reflection tool and interview protocol. They questioned whether these tools were part of the study or used primarily as a tool in the PD sessions themselves. Both experts suggested making a clear distinction between the two forms of data collection for the teachers. They both stressed the importance of this, as they both felt it impeded my ability to collect valuable data to analyze for results. For example, both experts noted that the initial reflection tool (Appendix D) asked questions regarding the teachers' perceptions about the EIE PD session they had attended (e.g., whether or not they were satisfied with the session, whether there were topics they wanted to focus on in future sessions, whether support was needed to implement what they had learned in the session), but lacked opportunities for descriptions that would help answer the research questions. Both experts agreed that although this information was essential to the EIE process to help teachers organize and plan for future sessions, it was not essential for answering the research questions. They suggested arranging the document so that it was clear to the teachers that the discussions pertaining to planning as part of the cycle should not be confused with the focus group discussions that would be

used to gather data that would help answer the research questions. Both experts

suggested reorganizing the teacher reflection tool to make these distinctions clear to the

teachers. The revised reflection tool can be found in Appendix E. Both experts also

recommended aligning these tools, specifically the parts addressing data collection for the

purpose of answering the research questions, to the interview protocol.   The initial

interview protocol, they found, was not aligned to the research questions. For example,

in the original interview protocol (see Appendix G), question four asked the teachers if

they could impact the content of the professional development they attended. Although a

valuable question, the response, they felt would not address the research questions

directly. The issues were addressed and the new interview protocol was created

(Appendix H).

Once the researcher revised all the tools based on expert feedback, the updated

tools were again sent to the same experts.   During the second distribution, the experts

provided some feedback to address design aspects of the documents such as using bold

letters and addressing spacing, but both agreed this time that the new tools were ready to

move into the next part of the piloting with the small sample of teachers.

Teachers Feedback on Tools

After the initial revisions were made using the input from the reading experts, the

tools were distributed to a sample of 13 content area (i.e., social studies, science) teachers

from another similar school in the community during their department meeting. At this

meeting, the researcher introduced the study and the tools being piloted. Teachers were

then asked to complete the questionnaire, review the teacher reflection tool and the

observation protocol and note the readability of the questions, any items that were not

clear, and any other comments that they had about the tools. After all of the teachers had an opportunity to preview each document, a debriefing took place with the group. Recommendations made by the teachers were then recorded in the researcher's field notebook and revisions were made based on their feedback. As with the experts, most of the comments were directed toward the reflection tool. Teachers suggested that weekly written responses would be excessive and that this would also limit the teachers to only addressing these particular questions. The teachers suggested adding an explanation that would explain to the participants that these questions were to be used as a guide to facilitate the discussions they would have in order to plan for future sessions. They agreed that written responses would not add to the experience.

Data Analysis

This section discusses the procedures used to analyze the data collected. The section begins with a discussion of the procedures used to analyze the questionnaire, followed by a discussion describing the procedures to analyze the observations, interviews, focus group discussions, field notes and teacher reflection tool.

Questionnaire

The questionnaire was the initial tool used in this process of discovery. The results of this survey were not only used to identify teachers who were eligible to participate in the study, but were also used to help establish common goals to assist the participants in making choices about their PD needs. Additionally, the results of this questionnaire helped drive discussions during the whole group sessions. To do this, the researcher tallied teacher responses in each section of the questionnaire and provided these tally results to the teachers as evidence of their collective knowledge and/or as

evidence to support their decisions to focus their investigations on areas that needed further clarification. For example, if most of the participants "strongly agreed" that students who are more than two years below grade level in reading could not master content area knowledge in their class, the group might have elected to discuss this openly and possibly address this need. In the section asking teachers to rate their confidence with the use of specific literacy strategies, if most teachers noted that they had "a little" confidence with using Collaborative Strategic Reading as a text comprehension strategy, they may, as a group, elect to make this strategy as a focus of their group investigations. The findings from the initial questionnaire helped engender dialogue among teachers in order to develop consensus about PD needs in the area of content area literacy practices. The findings provided a springboard to guide the development of common goals based on the identified needs of teachers and students in their school. Responses to each question were described in order to begin the process of inquiry for both the researcher and the participants.

During the Questionnaire/Observation/ Interview 2 (Phase 3), the questionnaire was distributed for the second time. The tally data from this distribution was used again to engender dialogue during the final focus group discussion. Changes in participant individual responses as well as their collective responses were discussed. For example, there were slight differences in the individual and collective responses of the participants when asked whether they strongly disagreed, disagreed, were neutral, agreed or strongly agreed with the statement: "I feel that reading and language arts teachers should be primarily responsible for literacy instruction." The researcher was able to highlight these differences during the final focus group discussion and therefore get more detailed

explanations as to why or what influenced these changes and also whether these changes were a result of the EIE experience.

Field Logs/ Teacher Observations

In order to interpret and develop understanding of the participants' interactions and reactions to the EIE PD, the researcher analyzed the data in the field logs and the teacher reflection tool using coding of information. According to Lichtman (2010), coding refers to the ongoing process in a study of sorting and organizing a vast amount of materials (text and artifacts) into recognizable categories and concepts. She also suggested stages for the coding process which include first conducting initial coding. For this study initial coding was formulated using the conceptual framework of the study and the research questions. These initial codes continued to change as the researcher collected data throughout the study and new themes began to emerge. The researcher used color coding to sort the written data in the field logs and from the teacher observations.

Following the recommendations of Lichtman (2010), the researcher then continued to revisit the initial coding until the codes could be "collapsed and renamed" in order to address redundancy, organizing these codes into categories of major topics that emerged with codes as subsets of categories. Lastly after revisiting the initial list of codes and revisiting the categories, the researcher sorted the categories to identify major concepts.

Interviews (Individual and Focus Groups)

The focus groups in the PD implementation phase and interviews conducted during the first and last phase of the study were recorded and transcribed. These

transcriptions were coded simultaneously with the field Logs and teacher observations

data using initial categories. These categories were framed around the main topics

explored by the research questions and an additional category was created to address any

additional emergent themes that were significant but did not directly address the

questions of this study. These initial categories included: (a) teacher descriptions of and

observations of their practice, (b) outcomes teachers anticipate for struggling adolescents,

(c) EIE PD practices teachers' report as most useful, (d) teachers' understanding of

disciplinary literacy practices for struggling youth, and (e) other emergent themes-

literacy support in the content areas. Next, data were sorted into an Excel worksheet with

columns for each of the categories. Once this information was gathered under each

category, the researcher used color coding and labeling to identify descriptive words and

phrases addressing each theme until the major trends were identified. By logging

individual responses into the Excel worksheet, the researcher was able to track changes in

individual teacher's responses as well as monitor changes in the group's collective

responses. Additionally, the researcher was able to identify areas which needed

clarifications and/or monitor individual teacher participation or lack thereof.

Summary

More rigorous standards for students as a result of Common Core and increased

expectations on schools to help students meet these standards places teachers in a

challenging position if they are not supported through this initiative. The gulf between

research and practice in the field of professional development, particularly in the area of

supporting teachers with literacy in the content areas, must be addressed. In order to

address this chasm, Hill et al. (2013) have proposed that researchers spend more time at

the initial stages of program development and use this information to build onto the knowledge base of the field of PD.

According to Snow, Griffin and Burns (2005), opportunities where teachers can explore their beliefs and examine their practice in a collegial and collaborative manner are essential in high quality PD. In this exploratory study, a constructivist approach was used to examine and analyze the response of content area teachers to EIE PD. An exploratory case study design was used to examine how high school content area teachers responded to an EIE experience and if their self-reported understanding of content area literacy changed before and after an EIE PD. Answering the research questions of this study helped to identify PD practices that are essential for content area teachers and their understanding of content area and disciplinary literacy.

Data gathered during the three phases of the study explored teacher responses to an EIE development experience and their perceived knowledge of literacy instruction in the content areas. Data also helped develop the EIE sessions in which the teachers participated. Although a small sample size did not allow for advanced statistical exploration of data, collecting and analyzing the data as the teachers interacted with this process of exploration, investigative and experimentation allowed the researcher to identify patterns that arose from teacher responses, group discussions and researcher observations. This process will also help the researcher identify and solidify areas of study for further Stage 2 research by allowing the researcher to mold and create PD which is unique to the teachers at the school (Hill et al., 2013).

The text-based data collected throughout this process was analyzed using color coding of reoccurring themes in the teacher's responses. Additionally, tallies of the

responses on the questionnaire were used to describe and identify areas of interest and/or concern the teachers might wanted to address as well as to evaluate the teachers' self-perceived knowledge of literacy instruction in their content areas. Collectively, the data gathered throughout this study helped explore and record teacher response to the process of EIE PD in order to help identify best practices in content area literacy PD for these content area teachers.

CHAPTER IV

FINDINGS

This chapter reports on the results of the analysis of data collected during the 2014-15 school year from content area teachers. The data for this study were collected during the months of March, April and May of 2015 in a Miami-Dade County Public Schools senior high school. Teacher participants were engaged in an exploratory, investigative, and experimental (EIE) professional development approach and responded to questionnaires, participated in individual observations and pre-and post- individual interviews, answered questions during focus group discussions, and responded on individual reflection sheets. Additionally, a researcher log was used to record and document interactions during the individual one-on-one support sessions. In total there were eight focus group discussions, 20 pre and post interviews, 20 pre and post questionnaires, 20 pre and post observations and 20 individual sessions conducted. The research questions of this study were:

1. How do high school content area teachers in their descriptions of teaching practices, observations of their practices, and the outcomes they anticipate for their struggling students in content literacy, respond to an exploratory, investigative, and experimental professional development experience?

   1a. What professional development practices do content area teachers report as most useful as they explore, investigate, and experiment with literacy in their content areas in order to support struggling students, including students with disabilities?

2. How do high school content area teachers describe their understanding of

   disciplinary literacy strategies for struggling students, including students with

   disabilities, before and after a program of exploratory, investigative, and

   experimental professional development?

Chapter 4 is organized into three sections. The first section provides an overview of data collection and the accompanying data analysis. The second section presents the findings of this study and is divided into subsections that address each of the research questions. These subsections are: (a) teachers' descriptions and researcher observations of their practice throughout the study; (b) reported outcomes that teachers anticipated for struggling adolescents; (c) effective EIE professional development practices as determined by the participants; (d) teachers' understanding of disciplinary literacy practices and, lastly, (e) a section addressing emergent themes that were persistent across multiple topics of discussion. The last section summarizes the findings of this study.

Overview of Data Collection

Data were collected in phases: Questionnaire/Observation/ Interview 1, PD Implementation, and Questionnaire/Observation and Interview 2 as outlined in Table 1. Each phase employed multiple tools that were used for data collection and triangulation of data for reporting results. Data collection began with the administration of the researcher-developed questionnaire. The researcher initially used the questionnaire to verify participant eligibility requirements. The questionnaire asked the teachers for the following eligibility information: (a) subject area certification; (b) subject area that they are currently teaching; (c) number of years teaching; (d) number of years teaching current

content; (e) educational background; and (f) the numbers of struggling students, including those with disabilities, in their classes.

The questionnaire also included Likert scale questions regarding the literacy practices students were taught in their classrooms, their confidence in using specific literacy practices and their beliefs about professional development geared toward literacy strategy implementation. Frequency data derived from tallied results were analyzed in order to build understanding and help explore and describe teacher practice, their use of literacy strategies in their classrooms, and teacher perspectives about professional development (PD). Additionally, data from this tool was used along with the observation tool to frame the researcher's observations of teachers in their practice. For example, the researcher used the teacher observation tool as a general guideline to frame the individual observations, but also used the data from the initial questionnaires to get additional, more site-specific observational components. For example, all the participants claimed to use "previewing text before reading" as an activity that they used often or always before a reading activity of their text books. Hence this was a strategy that the research looked for during the observation in order to support the teachers' claim of using this strategy often to introduce text features.

The observations for all participants were conducted on April 6th and 7th, 2015 and the duration of each observation was 45 minutes. Observational debriefs and initial interviews were conducted April 8th, 9th and 10th. As explained in Chapter 3, although the research questions focus on the descriptions of teachers' experience with the EIE PD, the initial data collection also served the purpose of informing the PD sessions and also

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provided discussion points for the participants. Initial interviews, initial observations and the collection of the questionnaires were completed by Friday April 10, 2015.

The second phase of the study consisted of the implementation of the EIE PD and was initiated on Saturday April 11, 2015. This 6-hour session followed the agenda described in Appendix F, which focuses on a detailed explanation of the content covered during this initial session.   During this first session the teachers explored the many facets of disciplinary literacy and also planned for the sessions that would follow as part of the EIE cycle. For this first session only, the focus group questions were divided so that initial teacher perspectives about literacy and PD could be recorded before the EIE intervention. Part 1 of the focus group was conducted before the PD session and the last question addressing the most effective PD practices was asked after the PD session. This was done in order to get teachers' perspectives on their practices and content literacy knowledge prior to the initial PD session, and their input of the most effective components of the EIE PD after the session had taken place. All other focus group discussions, which followed subsequent PD sessions, were conducted after the sessions. In these sessions, teachers had time to reflect on the questions on the teacher reflection tool and then discuss their responses to these questions in the focus group discussions. Written responses were collected after the sessions, but before the next session was to commence. This same procedure of reflection was followed throughout this phase of the study.

Two weekly sessions were canceled due to unexpected circumstances with teacher conflicts such as mandatory trainings for the upcoming Florida Standards Assessment and end-of-course exams and unexpected faculty meetings at the school to

address end-of-year activities, but make-up sessions were quickly arranged. Originally,

the study was planned for eight weekly sessions totaling 8 hours, but ultimately the

teachers met for eight PD sessions totaling 21.5 hours of PD. These additional hours were

gathered from sessions where the teachers decided to stay beyond the scheduled time to

complete the tasks they were participating in. The focus group dates and a brief

description of the activities that the teachers planned are listed Table 5.

Table 5

Description of Teacher Planned EIE PD Sessions

Date	Length of PD	Description
4/11/15 Saturday	6 hrs.	Initial PD – Reviewed components of literacy in the content areas including culturally responsive instruction, literacy, and literacy strategies. At the end of this session teachers decided to use the upcoming session to review information and plan for future sessions (Exploration Phase).
4/15/15 Wednesday	1.5 hrs.	Teachers reviewed topics covered in the initial session. Teachers decided which component of literacy to focus on. During this planning session teachers decided to investigate the topic of motivation as it pertains to literacy in the content areas during future sessions. Teachers also decided to use their individual sessions to monitor participation and on-task behaviors during individual sessions (Exploration Phase).
5/2/15 Saturday	5 hrs.	Groups presented on using motivation to address the disciplinary literacy needs of struggling adolescents (Investigation Phase).
5/6/15 Wednesday	1 hrs.	Teachers shared resources to investigate specific strategies. They decided to look at ideas in a book presented by one of the participants on the topic of "Grit" (Investigation Phase).
5/13/15 Wednesday	1.5 hrs.	One teacher presented a book: *New Psychology of Success*. During this session the teachers discussed the intersection between grit, motivation, culture and literacy (Investigation Phase).
5/20/15 Wednesday	1.5 hrs.	EIE planning session- The teachers used this session to discuss the development of lessons with literacy strategies that they felt supported students in their specific content (Experimentation Phase).
5/23/15 Saturday	3 hrs.	The teachers used this session to plan for and develop the lessons they would implement during their second observational lessons (Experimentation Phase).
5/29/15 Friday	2 hrs.	Teachers reviewed the data from their individual observations and discussed results and their perspectives of those results. (Experimentation Phase).

Phase 3 began on May 26, 2015 and ended June 2, 2015. During this phase of the study the researcher conducted final observations and final interviews with each of the study participants. The teacher observation tool used in the initial observation framed these last observations. The teacher reflection tool was used to frame the interview questions during the post interview in order to follow the same format as the initial interviews. Researcher field notes and journals were also kept throughout the study.

Data Analysis

The data analysis in this exploratory case study began once the first data were collected. The week following the first phase of the study, the data (i.e., initial questionnaire, the initial observations and transcribed interviews) were read, reread and analyzed. Initially data were then sorted into categories (concepts) driven by the questions of this study (e.g., teacher descriptions of and researcher observations of their practice; outcomes teachers anticipate for struggling adolescents; EIE PD practices teachers report as most useful; and teachers' understanding of disciplinary literacy practices for struggling youth). As the data were sorted into these categories an additional category was created for "support" as this was a theme that consistently arose from the teachers' discussions.

Due to the large amount of data collected during the second phase (i.e., the EIE PD implementation), data were transcribed and analyzed after every focus group. To help analyze the data as the pool of data grew, the researcher organized the individual teacher responses chronologically and by topic into a spread sheet (Figure 2). This process also allowed the researcher to identify individual teachers who had not addressed

a specific topic so that these teachers could be a focus during future sessions. For example, during the focus group discussion on April 11, 2015, it is evident in this cross section of Figure 2 that Nancy did not provide input on the outcomes anticipated for students who struggled nor did she provide input on the effective practices of the EIE experience to date. In this example, the researcher made a point to address this particular teacher directly during future individual discussions or during focus group discussions by simply probing the teacher directly. This tool also helped the researcher plan for probing if needed, when changes in individual teacher responses were noted or when group consensus was changing. This process helped the researcher identify significant changes in the teachers' individual perspectives and/or descriptions of practice as well as changes in their collective responses. Identifying these changes and themes as the process progressed assisted the researcher in identifying the final themes or major trends in their collective voice. Lastly using Excel helped the researcher tally specific words or phrases that were noted as reoccurring. Figure 2 shows a very small sample of this spread sheet. In this sample, statements from three individual teachers responses recorded during the initial interview on the topic of understanding content area literacy strategies are shown as well as responses from individual teachers on different categories (color coded) from the focus group discussion held April 11, 2015 (identified on the example as: FG 4/11/2015).

INITIAL INTERVIEW		FG4/11/2015	
Describing Practice	Understanding of CALI for students	outcomes SPED	Prof Development practices
NOTES: Descriptions mostly focus on school wide strategies.			
Jack — When I can, I have to get in what I need to get in and when I have time, I support the schools initiatives. You can't do both effectively.	16JE I totally agree with that statement, I think we are finally accepting that we have to, so just do it! I still feel a little awkward, but I think the pacing guides help make it manageable		17JE. I also liked the presentations because it placed us into a place of responsibility. We had a responsibility to the group. It was like a grab and go bag. Having the ability to participate equally, we were all presenters and ultimately got to decide what part of the articles were important to share. Then those listening could them continue to research those topics on their own. I for one will take a deeper look that the articles I didn't get to read.
Emily — Yes, I feel I do. It is what I do. However, I also recognize that in today's world, I can't just be a social studies teacher. I have a passion for both. I discovered that early on with my love for historical fiction. I do respect both disciplines separately, and can totally see how one can help the other. That can be a difficult paradigm shift though when you are so passionate about history. Often I do not see why. I debate this issue often with my colleagues because you can't love history without having an appreciation for literature and reading. In this culture though, many feel they have to choose, and that is unfortunate.	16EC. Sure, I think I have a very good understanding of it. I have a sped and reading background and my exposure to academia I think also provides a solid background.	10 EC.- The books are really hard. Finding ways to relate the information to the books is difficult. I know they do not want us to lecture, but often if the students who can't read can't read, then what are the options? Most of them can't keep up. It's nearly impossible by the time they get to High school, especially since there is very little support once they get to these grades. 15EC. I agree. I think we do what we can and good teachers make a difference. Sometimes that difference can't be measured.	17EC. This was not a typical sit and get. We got the opportunity to look at articles not just here is a strategy, use it in your room and apply it to your content. So this was a little different, yeah. The support and encouragement we got facilitated our involvement. I have never had the opportunity to discuss the literature. It is often referenced or we are given small pieces of it, mostly because of lack of time or resources. But it was cool getting the exposure to it. I think this is important because we know that it is something that has been validated and information is not just delivered.
Nancy — Yes, I use the word walls and lots of graphic organizers. I try to implement the strategies we discuss in department meeting which are aligned to the schools pacing guids.	16NV I am a beginner.		

Figure 2. Sample section of Excel Data Chart. Teacher responses are logged into this spreadsheet by topic and date. Researcher could then sort the data by teacher, by date or by topic as needed to identify reoccurring themes.

After the data were sorted into these categories, the researcher printed specific sections by using the *hide* option in Excel to isolate specific topics. Then the researcher used color coding again to identify relationships within the categories and identify dominant or persistent themes that crossed over multiple categories. For example, the section of this tool on Figure 2, shows in red lettering phrases that helped identify support as a theme, not only between two teachers during the initial interview, but also between the categories. Words and phrases that described or answered the question were identified in order to look for trends in the teachers' individual responses as well as their collective responses. These color codes helped the researcher identify emergent trends within each of the categories. Finally, collectively, themes within each category were compared in order to identify themes that were persistent throughout the study and across categories. Observational notes and the researcher logs were also referenced in order to support this data analysis and to look for any variations in the teachers' responses and the researcher's reflections and or observations. For example, when sorting through data in the category *outcomes teachers anticipated for struggling adolescents*, several teacher statements such as "the SPED (i.e., special education) teacher is often pulled out" or "we do not have access to materials for these students" or "the reading coaches focus their in-class support mostly in the English or reading classes" were all categorized under *lack of support*. Hence *lack of support* emerged as a prominent theme within the category. This same thematic analysis was conducted after each focus group discussion.

Findings

This section will discuss the findings for each of the coding categories that were explored in this study. These categories were aligned to the research questions of this explorative case study. Specifically, these five sections are: (a) teacher descriptions of and researcher observations of their practice, (b) outcomes teachers anticipated for struggling adolescents, (c) EIE PD practices teachers reported as most useful, (d) teachers' understanding of disciplinary literacy practices for struggling youth and lastly the final section will discuss, and (e) emergent themes that were not initially explored by the research questions of this study.

Teacher Descriptions of their Practice

Teachers' descriptions of their literacy practices and researcher observations of their practice were gathered throughout the study. Opportunities to reflect on their practice and to discuss their practice were provided during individual sessions, reflections, and focus group discussions. Question one of this study addressed teachers' descriptions of their response to the EIE PD experience. Specifically, the researcher sought to describe how high school content area teachers in their description of teaching practices, researcher observations of their practices, and the outcomes they anticipated for their struggling students in content literacy, responded to an exploratory, investigative, and experimental PD experience. This first section will discuss teachers' responses in reference to their practice and is divided into three parts: (a) initial descriptions of teacher practice, (b) changes in teachers' description of their practice, and (c) a section summary.

Initial descriptions of teacher practice. Data in this section were derived from initial individual and group interviews and the initial questionnaire. The data from the

first transcribed focus group discussion were also included. At the beginning of the study, teachers' descriptions of literacy practices were generally focused on implementing specific reading strategies that were identified on a *school-wide literacy-practice pacing guide*. According to teachers' descriptions of this pacing guide, this school-wide instrument was developed during the summer by the school's academic coaches. The teachers explained in their individual initial interviews and in the first focus group discussion that this pacing guide was created in order to address low writing and reading scores in the school's state assessment reports. Out of the 10 teachers, six used the "pacing guide" or "school initiative" as part of their description of their practice. For example, when asked to describe her practice as it related to literacy in her area, Nancy, who has a Bachelor of Science in Special Education, said, "I use the word walls and lots of graphic organizers. I try to implement the strategies we discuss in department meetings… these are usually aligned to the school's pacing guides." Patty described her literacy practices as "not too creative….pacing guide helps a lot." Although the teachers claimed to support the implementation of this tool, the teachers also believed this type of literacy implementation sometimes infringed upon the amount of time they had for content instruction and expressed that they saw this type of instruction as additional to their content.   When asked if she implemented literacy practices, Aida responded, "I think I try. But it is just a lot, often squeezing in what I have to do is hard enough, then we have to support other school initiatives like the strategy of the week or writing. I mean, can I just teach my content?" Another teacher, Jane, stated, "I try, but I also think that they need to let us teach. Here we have school initiatives that we have to support, and we have to make it fit."   Samuel further explained that, "…those useless weekly

strategies are generic, the moment they become generic they are no longer thinking strategies." Lastly, Jill, a math teacher, shared that in math particularly, it was difficult to support reading and writing because her remediation focus was usually on re-teaching those skills from a previous class that were required to master the current curriculum. When asked to explain this, Jill stated, "Look, I teach algebra two. In order to be successful in algebra two, students need a solid foundation with algebra 1 and geometry. If they do not [have this foundation], they will not be successful in my class. Therefore, I have to spend considerable time teaching those skills. It is after all a spiral curriculum."

Of the other four teachers who expressed more self-confidence when asked about implementing disciplinary literacy, the teachers still supported the fact that they viewed it as a separate entity. For example, when asked if she implemented literacy practices in her instruction and to describe it, Lara stated that, "Yes, but it takes a considerable amount of planning and thinking outside the box. You have to think as both a social studies teacher and a remedial teacher" indicating that she also perceived this as an additional component to her social studies lessons. Jack also shared that he "supports" school-wide literacy initiatives when he can; "We just support their work by providing opportunities for the students to use the strategies that are taught in English and reading." Finally, Emily, who had a master's in special education, stated, "It is difficult to remediate foundational skills and teach the content. It reduces teaching the content to memorization, and there is so much more to it than that. Ultimately, you have to split your time between the two with these students."

The theme of having to implement literacy as an additional component to their content was also evident in questions addressing support. For example, Nancy, when

asked about support given to her to address literacy in the content area stated that when the support is given it is often disconnected from what she is actually covering or doing in her own classroom. When this support is given by district personnel, there is often follow up and they have to implement whatever was covered in the PD. Nancy expressed that because of this disconnect, the strategies imposed are often more of a nuisance than a constructive entity. Also, nine of the 12 initial participants reported that they agreed or strongly agreed that English and reading teachers should be primarily responsible for literacy instruction and 11 of the 12 initial participants disagreed or strongly disagreed with the statement that students who read more than two years below grade level could master the content in their areas.

Data from teacher observations and the researcher's journal were also used to analyze teacher practice at the beginning of the study. When analyzing the data from the observations, field notes and the questionnaires, it is evident that the teachers, including the two with a special education background, use generic reading strategies but spend less time or feel less responsible for teaching the process involved in the use of strategies. For example, it was evident in the observational data that teachers were using tools such as word maps to introduce students to new vocabulary. This was observed in the classrooms in the form of student work products on the walls and in student folders as well as during instruction in some classrooms. Outcome based evidence was noted in all of the classrooms. However, during the lessons, it was observed that teachers often gave the students definitions or explanations of meaning when the students encountered uncertainty during reading activities or while students were doing work. Process-centered instruction, instruction focused on *how* to find meaning or how to use the

strategies was seldom observed. There is more evidence of the use of outcome strategies such as study guides and graphic organizers such as KWL charts and Venn Diagrams, which students complete independently or in groups. However, process oriented lessons that focus on how, why, or when to use these strategies, such as reciprocal teaching or thinking out-loud, are not as common. Additionally, the researcher noted on several occasions in the researcher journal during the observations, that some teachers used literacy strategies, but that the processes underlying these strategies were seldom taught. The researcher speculated in her journal that this observation might be due to the fact that specific strategies on how to use these tools might have been taught earlier on during the year.

      Changes in teachers' descriptions of their practice. Data from the transcribed focus group discussions, teacher feedback forms and researcher logs from individual sessions were used to look for any changes in teachers' descriptions of their practice. Specifically, the researcher looked for descriptions that either supported the teachers' continued use of the implementation of the pacing guide as the primary way to describe their literacy practices or whether this changed or was expanded. Also the researcher looked for other themes that emerged in the teachers' descriptions of their practice.

      During the focus group discussion following the first weekly PD session on April 15, 2015, the teachers continued to use the pacing guide as a tool that encompassed or reflected the literacy practices they were using in their classes. Afterwards, the researcher made some notations that referenced teacher comments about their practice during the weeks that followed between the first and third weekly PDs, but no significant differences were noted during the individual sessions or weekly PD sessions.

On May 13th, 2015, the fourth weekly PD session, the teachers introduced a new idea while addressing their practice during the focus group discussion. On this day, the teachers instead described an "increased awareness" of their practice, but were not clear in the way this awareness lead to changes of their actual literacy practices or strategy implementation. Ultimately this trend of describing changes in their practice as having "increased awareness" continued to the end of the study. Although the individual teachers reported some other changes to their practice apart from increased awareness, no other persistent theme emerged from their collective responses. When probed by the researcher on this topic, many teachers expressed that it was very difficult to think of practice during this time of year, which primarily focused on end-of-year events, testing and procedures. For example, Jill, a math teacher, responded by saying, "I have learned a lot about specific math strategies that implement literacy, especially from the Ad Lit resource, but truthfully, I just haven't had time to implement it much because of testing interruptions." The researcher recorded in the journal that at the time of this discussion, two teachers were involved with the planning of graduation, one was the department chair and was doing end-of-year book counts and training her teachers on testing procedures, and three others were involved with planning and executing Senior Grad-Bash, a senior over-night field trip.

Summary. This section discussed the teachers' responses to questions regarding the intersection of the EIE PD and their practice. Initially, the teachers described their literacy practices in relation to a school pacing guide outlining literacy skills to be supported in the content areas. Emergent themes in this section included teachers' overall disconnect with this tool, many of them describing it in terms of an additional

component added to their instruction. As the EIE PD sessions went on, a new theme

began to emerge: the theme of awareness, or increased understanding. Although the

teachers did not report or describe specific changes to their practice, they were able to

describe that they were more aware of it as it pertained to literacy. Specifically, teachers

stated that they were more aware of their ability to impact student motivation with

literacy by recognizing the importance of becoming aware of student backgrounds and

culture, multiple students' strengths and limitations, and also specific strategies to

support their success.

Outcomes Teachers Anticipated for Struggling Adolescents

Question one of this study sought to investigate teachers' response to the EIE PD

experience. One of the areas addressed in this question is teachers' response to the EIE

PD, including their anticipated outcomes for students who struggle, including those with

disabilities. This part of question one is discussed in two parts: (a) outcomes teachers

anticipated for struggling youth pre-EIE PD and (b) change in teachers' anticipated

outcomes for students who struggle, including those with disabilities following the EIE

PD experience.

Outcomes teachers anticipated for struggling youth before EIE PD. Data for

this section were gathered from initial interviews, first administration of the questionnaire

and the initial focus group discussion and teacher reflection tool. Information from the

researcher logs were also reviewed for triangulation. Teachers shared many perceived

limitations when discussing the anticipated outcomes for students with disabilities.

Overall, all teachers – including the two with degrees in special education -- projected

limited success for struggling students, but the reasons varied from: (a) lack of

knowledge on how to support these students to (b) lack of student interest or student motivation to (c) large classes and (d) limited access to resources and support. Overwhelmingly, however, all the teachers, directly or indirectly, reported lack of support as the main theme that impeded student outcomes.

Teachers described a sense of helplessness with addressing the needs of struggling students in their content area classes. Both teachers with a special education background mentioned lack of support as the major cause for this feeling of helplessness. They described lack of knowledge and/or understanding from school and district administration and/or school policy which were not conducive to providing the individualized attention these students need as major contributors to this feeling of helplessness. Many teachers, specifically those with more students with disabilities in their classes, felt that they could not address the content appropriately with these students. They reported that the main obstacle when addressing the needs of these students was addressing behaviors, lack of foundational skills and lack of motivation. Likewise, throughout the observations, it was observed that during literacy activities, especially during reading assignments, many of the students were off task. Teachers did not address off-task behaviors if the students were not being disruptive. Patty described this in her initial interview saying,

> You jam 30 kids in one class, all low performing. They are either special
>
> education or ESOL [English for Speakers of Other Languages] or just never
>
> identified, but still in the lowest 30th percentile group. You give the teacher no
>
> support and expect her to bring them into mastery, and then on top of that ask her
>
> to teach content and literacy. This is not a good thing…it's a recipe for something

that is not constructive. It's a mess. I try, I really do, but I am happy when I get

through that period without having to kick someone out. It is a very, very good

day when the special education teacher is actually not pulled out and we get

through a lesson.

Emily, the teacher with a master's degree in special education added:

"I agree. We are not set up for success with our special education students. There

is not enough understanding or support from the district. Special education is a

compliance issue here, but the students nor the teachers are getting the support

they need. I have three classes with a high percentage of students with disabilities

which are supposed to be in regular classes, so I do not get much support from the

special education teachers, but the other half of the class does not speak English.

It makes it very hard to juggle 30 students who are all at different levels of

abilities.

Lastly, the researcher journal was referenced when analyzing data for this theme.

The researcher journal records the researcher's observations and researcher's thoughts in

reference to teachers' anticipated outcomes and their dispositions when discussing this

theme. On April 15, 2015 the researcher recorded that the teachers got very passionate

when discussing issues concerning the outcomes of students who struggle, but

specifically students with disabilities. The researcher's reflective entries recorded her

bias against teacher comments and their externalized locus of control when describing the

outcomes they anticipated for students with disabilities early on during the PD sessions.

This entry further documents and supports the teachers' statements in regard to

anticipated outcomes. The researcher wrote:

We planned for observations for counting off task behaviors. The main themes focused on motivation, specifically in reference to teacher motivation. Teachers felt that the EIE process made them feel as if they were part of the solution, as far as literacy was concerned. They also described that the discussions around content or disciplinary literacy as opposed to just literacy or reading, made them realize that they actually had an important role to play. However, this was not reflected in their comments when talking about students with disabilities, where the teachers continue to blame *the system* for student failure. A few even mentioned that although they recognized that students are set up for failure, there is nothing they could do about it. This often makes me upset and I have to make a great effort to not come across as heavily impacted, or impacted at all, by their comments. I strongly feel that as teachers in general we are responsible for all the students in our classes, regardless of their ability, social status or exceptionally. I do empathize with the teachers' struggles and hope to be able to discuss these issues more one-on-one during individual sessions. It was difficult for me not to join in and input my two cents.

Changes in teachers' anticipated outcomes for students who struggle after the EIE PD. Data for this section were gathered from the analysis of the collective focus group discussions, teacher reflection tool, and researcher journal notes. As the study progressed, the teachers' anticipated outcomes began to change slightly. The researcher noted this change during the field notes on May 13, 2015:

Today I noticed a change in teacher attitude when discussing student outcomes. During the planning session the teachers today discussed specifically the

outcomes they anticipate for struggling adolescents as a barrier to student success. Although this is the first time this has been mentioned as a barrier to student success, and is not among the most persistent themes at this time, I feel this is a critical pivot point in the PD sessions as it relates to anticipated student outcomes and teacher response to the EIE experience.

Prior to this session, the teachers had reported external factors as the primary barriers to successful student outcomes as they relate to literacy. During this session the teachers began to consider internal factors, such as their own perceptions or self-imposed limitations, which impacted the success rates students with disabilities experienced with literacy in the content areas. Later that same day, during the focus group discussion, the researcher pursued this topic further with the teachers by asking them to expand on the thoughts they shared during the planning session about internalizing some of the issues associated with the achievement of students with disabilities. When asked about the limitations they had previously mentioned and how these limitations interacted with the topic of the day's session, Jack responded (ellipses in the following quotes indicates that a portion of what was said was deleted):

Well, that is what today's topic was all about right? We internalize that we need all these *things* to make these students successful. That without these *things*, we or they are hopeless or helpless. I think it makes us lazy. We start to discount the importance of our efforts and the difference these efforts can have on students. We almost make it easier for these students to fail because we believe they aren't smart enough, or capable enough. But after today's discussion about this book, I think that the biggest problem here is us. The way we disempower these students

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because we feel disempowered, water down things for them, and not challenge

them. We are almost making them believe that risk and effort is not worth it.

They are afraid of risk and we are afraid of effort… Afraid it might make us feel

bad or worse or even more helpless, and the current status, although not right, it is

comfortable for us in a way.

When another teacher disagreed partially with these comments, Nancy added:

I remember a time when special education had a lot of money and things were

very different. My first three years as a teacher, a long time ago, I taught pullout

in an elementary school. Next door to me was a self-contained SED classroom. I

was very close to those teachers too. Of the five of us, none are still in a special

education setting. When they started requiring additional certifications, I got

certified in social studies and I love what I do. I think that today's session really

brought me back to believing that I can do something for these students. I left

because I thought I couldn't. I can understand what JG is saying the system for

these students has gone nuts, and I also understand that we need to watch how we

encourage these students, and more specifically, what we encourage them to

accomplish. So I agree with both… As teachers we have a moral responsibility to

address their needs and more importantly to help them believe in themselves and

in their efforts.

Lastly, when asked to link these comments directly to literacy Jane added;

It is very scary I think. I think that our practice impacts very much how the

students feel about themselves especially as it relates to literacy. This is all very

overwhelming for me because I think we come into this profession very much

aware of our impact, I think it gets lost along the way. As it relates to literacy, it is especially distressful for me as I think more about it, mostly because I am aware that I don't usually think about it, perhaps because I didn't feel ultimately responsible for a student's success with literacy. I am a content teacher, I feel, or felt responsible for a student's success in my area. Somehow I didn't, at least not so clearly, link the two. Now I do.

In phase three of the study, participants were questioned once again about the outcomes they anticipated for struggling students. All of the participants agreed that their perceived outcomes had changed, as they felt more accountable for the literacy success of their students and for their outcomes. However, the participants also shared that these outcomes although better in their own classrooms, would still be minimal or difficult in general. The participants used words such as "empowered", "increased awareness", "work through frustration", and "more optimistic" when discussing the intersection of student outcomes and their own practice. However, they also used words such as "limitations", "bureaucracy", "standardization", and "systems" to discuss limitations to their practice and or increased student outcomes. For example, when asked about whether there had been a change in the outcomes he anticipates for struggling adolescents, Samuel replied:

Depends, define "Outcomes". If you measure outcomes by passing a test, no… but if you measure outcomes by effort, drive and motivation, yes. If you measure outcome, by increasing the ability to make attainable goals with reading and understanding, yes. If you measure it by gains, even though minimal, yes. If you

allow me to measure it in those ways, yes, I have learned that I can impact student

outcomes, especially as it related to learning my material through literacy.

In the focus group discussion, the theme of feeling more empowered and

motivated to address the needs of struggling students despite their recognition of

burgeoning limitations was persistent. One participant, Jack, described it this way:

…I hate to say it, but again it has been a huge change in the way I am even

motivated to address the needs of these students. I was stuck in feeling dumped

on. I admit it. I did not like my inclusion classes, nor did I like it when the

reading coach came in with her strategies. I did not go to school to teach special

education students, and I still feel that way. Gifted teachers don't have to deal

with special education students, in the advanced classes students still get the

support they need in small classes and with individualized attention. Why not

have that support for general education teachers serving students with disabilities.

But before I go up on that soap box again, I think my change and the change in

what I expect from them is the greatest change.

The conversations made me realize that this is not the children's fault, and

in a sense it is not their battle. I know now that I have a responsibility to try to

teach them to be literate at the same time I teach content and address them and

serve them, so obviously, I now expect their outcomes to be better too. I feel

more motivated to address their needs, in my class. As far as their outcomes as

related to formulas and testing, I am still on the fence.

Summary. This section summarizes the themes that arose from the teachers'

responses to questions regarding the outcomes they anticipated for struggling students,

including those with disabilities. Before the EIE PD experience and early on during the

initial implementation of the EIE weekly sessions, the teachers reported that the

outcomes they anticipated for students who struggle in their classes, especially as it

pertained to their ability to use literacy as a tool to learn the content, was very limited.

Themes that were consistent in explaining these limited outcomes included: (a) lack of

knowledge as to how to better support these students; (b) lack of student interest or

student motivation; (c) large classes; and (d) limited access to resources and support. The

researcher noted that these themes were all external factors. As the study progressed, the

researcher noted new emergent themes; the teachers' responses began to change.

Teachers started to discuss their role in limiting or impeding literacy outcomes,

specifically as it related to student motivation. Although this emergent theme of

responsibility began to take form, ultimately the teachers continued to use external

factors, such as lack of resources or support, to explain and validate their idea that

struggling students, specifically those with disabilities, could not succeed.

EIE PD Practices Teachers Reported as Most Useful

This section will describe the EIE PD practices teachers reported as most useful

throughout the study. Throughout the study in their focus group discussions, participants

identified several components as being essential while they participated in the EIE cycle,

although initially no particular component of the experience was mentioned more than

others. In order to identify the themes within so many different descriptors, the

researcher first color-coded all sentences or words that were similarly themed. For

example, when teachers described exposure to or working with resources in the form of

books, articles or other publications as a significant part of the experience, these

statements were color coded and tagged under the category *Exposure to Literature* and this was identified as a theme. These themes or codes were: (a) applicability of information, (b) exposure to literature, (c) autonomous systems, and (d) collaboration. Table 6 below lists these codes along with subcategories that were grouped under these codes.

Table 6

Professional Development Practices Teachers Report as Most Useful When Supporting Struggling Students with Literacy in the Content Areas

Codes	Subcategories
Applicability of Information	•Increased knowledge of content specific literacy strategies
	•Able to adjust/modify strategies to use with different groups of students
	•Freedom to pick and choose between ideas/strategies
Exposure to Literature	•Exposure to professional journals and research
	•Exposure to trade materials (ex. how-to books)
	•Exposure to literature
Autonomous Systems	•Ability to drive PD content
	•Opportunity for independent learning
Collaboration	•Collaboration with other teachers from different disciplines
	•Collaboration with teachers in their own discipline

During the last phase of the study, teachers were able to reflect on the entire EIE process from start to finish. The first time we reflected on the entire process was on May 29th during the final focus group discussion. The teachers also had the opportunity to share these reflections during their one-to-one interviews. In order to identify the most

persistent trend, words and phrases were classified into categories and tallied. This tally

is presented in Table 7.

Table 7

Phase 3 Tallies of Best EIE PD Descriptors During Individual Interviews and Last Focus Group Discussion

Categories	Participants' Individual Interviews										Mentioned in focus group	Totals
	1	2	3	4	5	6	7	8	9	10		
Cycle Component		/				/					/	3
Applicability		/		/			/				/	4
Research/ Investigation		/	/		/	/					///	7
Autonomy	/	/	/	/	/	/	/	/	/	/	////	14
Leadership Opportunity	/										/	2
Individualized Support		/	/			/	/				//	6
Collaboration		/						/	/		////	7
Financial Incentive									/		/	2

Note. 1 = Jack, *2* = Emily, *3* = Nancy, *4* = Jane, *5* = Ann, *6* = Samuel, *7* = Lara, *8* = Patty, *9* = Jill, *10* = Aida.

     The most persistent theme that the teachers identified as the most valuable

component of the EIE PD experience was teacher and group autonomy. Teachers

expressed that the ability to plan for the content covered in the sessions was the most

rewarding component of the experience. Additionally, they described that having the

autonomy to change and direct what and how they implement what they learned in a way

they deemed applicable to their students and teaching styles was also beneficial. All

teachers who participated in this phase of the study reported autonomy as the most useful component of the EIE experience.

Teachers' Understanding of Disciplinary Literacy Practices For Struggling Youth

This section will address question two of this study and describe the teachers' reported understanding of practices and or strategies for supporting struggling students with literacy before and after the EIE PD cycle. This description is discussed in two parts. The first part will discuss teachers' understandings of disciplinary literacy practices before the EIE PD and the second part will discuss teachers' understandings of disciplinary literacy practices after the EIE PD.

Teachers' understandings of literacy practices for struggling students before the EIE PD. Data for this section were gathered from initial teacher interviews and questionnaires collected during Phase 1 of the study where the teachers described their understanding of disciplinary literacy strategies for use with students who struggle. Additionally, researcher data from the first observations were used to triangulate results from teacher input.

From the beginning of the study, during the initial interviews, the teachers were clear about their limitations of not knowing how to address the literacy needs of students who were below grade level, specifically those students with disabilities. This included the two teachers with special education backgrounds, who reported not knowing how to do so in the midst of their current environment, which they reported was not conducive to remediation. Of the 10 teachers who completed the study, seven reported in their initial interviews that they were unsure of how to use literacy strategies to address the needs of students who struggled with literacy in their classes. Of the remaining three teachers, two

reported that they tried to address these needs using reading strategies identified in the

school's literacy pacing guide, but that in despite of this tool it was still difficult to meet

the needs of these students who often required a great deal of support or individualized

attention. Teachers stated that they did not know how to "relate" or how to "motivate"

students to use the strategies and that time to help them with the use of these strategies

was often limited. During the first PD session on April 15, 2015, when the teachers

decided to focus on student motivation, this trend continued. Teachers discussed the

outcomes they anticipated for these students, many stating that their main issue apart

from knowing specific strategies for their content came about from the perceived lack of

interest or lack of motivation they stated these students showed. Teachers agreed that the

majority of the students had just given up, or learned how to just get by with minimal

effort. Lara explained this during the focus group discussion after this session:

> I think the point is that we try to help, but the pressure to pass the EOCs is just too
>
> great. I know that the main concern for this study is students who are struggling,
>
> but the truth is that the high achieving students are struggling too. I have students
>
> that have to pass the FCAT, or the FSA…whatever they want to call it today, the
>
> EOCs and the AP exams when they don't even belong in AP classes. At the end
>
> of the day, many of these students just don't care. In the inclusion classes you are
>
> dealing with so many factors, so much that these students bring in. You have to
>
> be a social worker these days. Getting them to believe or hope takes time. That is
>
> the first step, and many don't get there. I think we have to deal with that before
>
> we throw strategies at them as a fix all. As we have been discussing motivation

and culture play a big role too, in a school like this I think that these issues are even more important, issues a strategy pacing guide can't address.

At the end of this session, the teachers decided to focus on literacy strategies in their areas as a tool to increase student motivation. The teachers also agreed to use their individual sessions in the upcoming week to gather information about student engagement as they agreed that engagement was closely aligned with motivation. They agreed that the researcher could provide off-task behavior tallies to get a picture of student motivation in classes where there were high percentages of students with disabilities.

Changes in teachers' understanding of literacy practices. On April 27, 2015 after completing the first cycle of individual support sessions, the researcher wrote in the field log, "I have noticed that many of the teachers are making comments that indicate they use literacy practices more often than they thought they did before to address the needs of struggling students and yet others, who perhaps noted in the beginning that they used them, started to question that they in fact did. Perhaps these changes in perspectives are due to their broadening or changing definition of disciplinary literacy strategies in the content areas?" This question helped the researcher plan to investigate this issue deeper during the following focus group session held on May 2, 2015.

During the May 2, five-hour session, the teachers focused on a document they found online titled Adolescents' Engagement in Academic Literacy (Guthrie, Wigfield & Klauda, 2012) that addressed the issue of motivation and literacy. This book is divided into six chapters described in Table 8. The teachers divided the sections and provided a brief overview of their section during this 5-hour Saturday session. After each

presentation the teachers discussed the content and its relation to their classrooms and

their instruction. For example, in the researcher's field log for this session, the researcher

reported in her observations that the teachers discussed their own thoughts about

neglecting the motivational needs of adolescents in relation to literacy. The researcher

also documented that the teachers correlated this neglect to lack of PD experiences

geared toward addressing these issues. They agreed that these practices or lack of PD

engendered disengagement in their struggling students.

Table 8

Chapters in Adolescents' Engagement in Academic Literacy [a]

Chapter	Title
Chapter 1	Motivation, Achievement, and Classroom Contexts for Information Book Reading
Chapter 2	Motivation for Reading Information Texts
Chapter 3	Information Text Comprehension in Adolescence: Vital Cognitive Components
Chapter 4	Instructional Effects of Concept-Oriented Reading Instruction on Motivation for Reading Information Text in Middle School
Chapter 5	Motivations and Contexts for Literacy Engagement of African American and European American Adolescents
Chapter 6	Struggling Readers' Information Text Comprehension and Motivation in Early Adolescence

Note. [a] Guthrie, J. T., Wigfield, A., & Klauda, S. L. (2012). *Adolescents' engagement in academic literacy.* Retrieved from: http://pennykittle.net/uploads/images/PDFs/Reports/motivation-and-reading.pdf

During the focus group discussion the question addressing the teachers'

understanding of disciplinary literacy strategies was asked first. The teachers' responses

provided evidence that their understanding of disciplinary literacy practices and their use

of these strategies with struggling students was evolving. Emily (who has a master's in

special education) explained it by stating:

I think that the whole process of talking and discussing and discovery has pushed me to question my practice and how I define literacy success for my students in my class.….I think that disciplinary strategies are very specific to the content that you teach. It pulls from the reading area and the generic strategies, but it also draws significantly from the disciplines themselves. That is so much more empowering as a content area teacher, especially when you realize that you do teach literacy, apart from these mandatory strategies the school pushes. It is somehow empowering to recognize that I can do more to help my struggling students by focusing on my teaching. However, the problem is that I am almost embarrassed to say that I am not quite sure what those specific strategies are.

Another teacher, Nancy, added:

I am just learning. This is all so interesting. It makes me think about my teaching, my actual actions and why I do them. I think that teaching thinking and the whole move into analysis is ginormous. Definitely I have learned about what disciplinary literacy is in general. I do not think I had much of an understanding of it before at all, especially as it relates to the lower achievers. It is almost refreshing to discover that it is not additional, but rather just disciplinary thinking strategies and skills, what we do naturally in our areas. It almost unburdens you from the task of teaching reading. More thinking out-loud I guess. Letting those students who need to see thinking see how we think and showing them that.

Of the six teachers who responded to this question during the focus group discussion on this Saturday, May 16 session, all six noted a change in their understanding of disciplinary literacy strategies for struggling students. However, the teachers also

shared that although their understanding of content literacy and disciplinary literacy strategies was increasing, there was still some doubt about very specific disciplinary strategies to use with students who struggle.

On May 6th, 2015, the teachers started to address the issue by more deeply exploring the specific strategies they could use to build student motivation. Teachers decided to use this session to share specific resources and strategies to use with struggling students. The teachers found these resources on their own using Google, Google Scholar and online libraries when available. The researcher also provided support with locating the articles once they had found the titles. When the teachers in the group found a resource they thought the group could use, they e-mailed it to the group. Once we had five resources to share, participants agreed that five was a manageable number of resources to share during the scheduled weekly session. When all participants agreed, they stopped collecting resources. Figure 3 provides a list of the resources the teachers agreed to share during this session.

Figure 3

APA References of Shared Resources to Address Specific Disciplinary Literacy Strategies

Resources

Duguid, J., Brown Dodson, C., Cantlebary, S. (Eds.). (2009, February). Using Literacy Strategies in Mathematics and Science. Adolescent Literacy in Perspective. Retrieved from http://ohiorc.org/orc_documents/ORC/Adlit/InPerspective/2009-02/in_perspective_2009-02.pdf

Brozo, W. G., & Flynt, E. S. (2008). Motivating students to read in the content classroom: Six evidence-based principles. *The Reading Teacher, 62*(2), 172-174.

Dweck, C. (2006). *Mindset: The new psychology of success*. New York, New York: Random House.

Kenney, J. M., Hancewicz, E., Heuer, L., Metsisto, D., & Tuttle, C. L. (2005). *Literacy Strategies for Improving Mathematics Instruction*. Alexandria, Virginia: Association for Supervision and Curriculum Development.

Stockdill, D. B., & Moje, E. B. (2013). Adolescents as readers of social studies: Examining the relationship between youth's everyday and social studies literacies and learning. *Berkeley Review of Education, 4*(1).

During this session the teachers took turns providing a brief introduction and description of the resource being shared and a discussion of the resource's relevance followed. Toward the end of the session the teachers sat in small groups or individually to decide which resource or portion of a resource they wanted to investigate further. After the session, the focus group discussion again addressed their understanding of these strategies for use with struggling students, and again the teachers, including those with a special education background, described increased development in their understanding of using disciplinary literacy practices for struggling students.   In this session in particular, the teachers shared that it was rewarding to review specific strategies that were useful in their specific area. For example, Patty noted:

For example, the article about reading through the lens of inquiry… in science, I can definitely see how teaching students who have a hard time understanding what they read, to question while they read. I mean, I know we already do that, but the way the article mentions it is very precise. That cycle, the one with *engage explore expand* helps to frame a process. Although I think I do it already, reading this article and talking about it helps you hone in on a strategy and apply it and by making it manageable you impact their motivation.

Aida added…

I agree. When you are teaching, in general, I think we all like to think we are doing our best. I think that getting to know these specific strategies and how they can impact learning really helped me define what literacy in my area is, and how I can help those who can't read or keep up. It makes me think of terms like financial literacy, or computer literacy, or media literacy; basically skills used to help navigate a specific discipline. That has been an evolution for me. I think I can definitely better understand the whole concept, and specific strategies and definitely understand better how to help these kids.

As the study progressed, teachers continued to describe increased understanding of literacy strategies for students who struggled. However, there remained some apprehension as to their ability to use these strategies effectively. For example, teachers mentioned that they were still "processing the information", and that content literacy involved more components than they had originally expected. Others described it as "complex" and "more clear", but none described feeling completely confident with implementing content literacy strategies to address the needs of students who were

behind. Teachers explained that although they had a better understanding, they still felt that they had room to grow. For example, during the last focus group session on May 29th, 2015 Lara opened up the discussion about literacy practices for students who struggled by saying:

> …I think that we are now finally at the point where we are beginning to really take a close look at our practice. Even though this week's observations focused on that, it would be great to continue the conversation. I wonder if after this last week we would continue to focus on motivation. I think overall the students were more engaged with all of us, at least that is what we said, but we also spent two sessions, a weekday session, and a Saturday session planning for that one lesson. I definitely see how I am starting to change how I address the needs of the lower students, definitely how I think about literacy and awareness about literacy, but I think that we would need more time …

Ann added…

> I agree. I feel that I am definitely more aware of these students and their needs and also a bit more empowered to address their needs through some of these strategies. I can see how these strategies can increase literacy skills, but I can also see how they can also exacerbate the problem if they are just thrown at them as a save-all, fix-all….. I think that as far as my literacy practice and how it has changed, is that I am more aware of the fact that I have to address it, just still not very comfortable with it as it pertains to these kids; I feel it is something relatively new to me, and it is...but it's a great start.

Finally, Jane stated ….

I feel I am better able to recognize the issue and recognize their needs. I feel

more educated on trying to address it. But I feel we need more practice on

actually addressing these skills as it is very complicated. I liked that we didn't

just take the perspective of addressing it through reading strategies, because the

truth is that that is almost a secondary issue. It's an opinion. It's difficult to

address it all after just one of these PD experiences.

When the researcher asked the group whether they agreed that they needed more time for

learning how to use literacy strategies for students who struggle in their classrooms, all

teachers agreed that they could benefit from additional time.

Summary. In the beginning of the study, the emergent theme from teachers'

descriptions of literacy strategies for students who struggled was one of uncertainty. May

teachers used terms or phrases like "yes and no," "unsure," "a little," or "I am

uncertain" to describe their understanding or whether they understood these strategies

and their implementation to support struggling students. As the teachers continued to

interact with literacy implementation and addressing the literacy needs of struggling

students in the content areas, their focus on motivation eventually led to them seeking

more specific content strategies to use in their areas. Toward the end, teachers reported a

better understanding of these strategies and their use with students who struggled, but all

agreed that further work was needed to fully understand their implementation and use

with struggling students, especially those students with disabilities.

Literacy Support in the Content Areas

Throughout the EIE PD sessions and during one-on-one interviews, focus group

discussions and individual sessions, the teachers expressed that although the district

attempted to address literacy in the content areas through PD, these efforts were often generic and often not supported. When responding to questions in all areas including their descriptions of their practice, when describing the outcomes teachers anticipated for struggling adolescents, when describing the EIE PD practices they reported as most useful, and when describing their understanding of disciplinary literacy practices for struggling youth, teachers shared frustrations over a lack of support with addressing the literacy needs of students with disabilities. For example, when responding to questions regarding their understanding of literacy in the content areas, some teachers correlated lack of support with their lack of understanding. For example, during the May 6th focus group discussion Patty stated,

> "It is eye opening to see how much damage we can do by not recognizing some of these elements we discussed today. Today was very helpful because I can start putting real strategies around what we have been discussing…. It is just too bad we do not have access to professional development that addressed these issues specifically so that we can understand them better."

Nancy added, "Before today, I learned that there were strategies because someone told me so in some workshop, but the access to real strategies that are useful was never really presented."   Table 9 below describes themes in the teachers' responses that were used to support a need to identify lack of support as an emergent and constant theme across the predetermined categories set by the researcher to initially disaggregate the data.

Table 9

Summary of Teacher Statements in Each Category to Support the Emergent Theme

Category	Summary of statements supporting lack of support as an emergent theme across all predetermined categories
When describing their practice…	…teachers reported lack of support as a barrier to improving their practice. For example, teachers stated that classrooms with a large percentage of students with disabilities lacked the adequate support from an aide, a coach or a special education teacher. They reported that this lack of support often led to limited opportunities for effective instruction as a large amount of time was often spent in remediation or managing behaviors.
When describing the outcomes teachers anticipated for struggling adolescents…	…teachers noted a lack of classroom support, lack of support in the way of access to materials, and lack of professional development available to learn of specific literacy strategies to use with struggling students.
When describing the EIE PD practices they reported as most useful….	…teachers reported that more follow up support would be essential to implementing and refining what is learned or discussed during professional development opportunities or department meetings, including school literacy initiatives.
When describing their understanding of disciplinary literacy practices for struggling youth…	…teachers noted a lack of professional development opportunities available to understand the complexities of literacy in the content areas.

Summary of Findings

In this chapter, I presented the findings of the study. The data were collected from April to June during the 2014-15 school year at a Miami-Dade County Public Schools high school located in the south end of the county. Twelve participants started the study and a total of 10 participants remained in the study through the last EIE PD session. All 10 participants were special area teachers, had at least seven years teaching experience, were certified in the area they were currently teaching in, had annual

evaluation ratings of effective or higher and had special education students in their classes. Two of the final participants had degrees in special education. These findings are based primarily on transcribed focus group interviews and individual participant interviews, but also included data gathered from pre and post observations, the researcher log, field notes and participant questionnaires. Qualitative data analysis using color coding, sorting data into visual displays, tallying and Excel charts were used to disaggregate data from the researcher journal and field notes, observations, teacher questionnaires and transcribed data from eight focus groups and 10 pre and post interview from each of the 10 participants who finished.

Chapter 4 is divided three sections. The first section provided an overview of the data. Section two summarized the data analysis, and section three reported the study findings and is divided into five sub-sections that include: (a) teachers' descriptions of their practice before the EIE PD and any changes to those descriptions during and after the EIE sessions, (b) a description of the outcomes teachers anticipated for struggling adolescents before and any changes to those anticipated outcomes during and after the study, (c) EIE PD practices teachers reported as most useful, (d) teachers understanding of literacy practices before and after the PD, and lastly (e) a brief discussion of an emergent theme, that although significant, did not address the questions of this study.

When discussing the teachers' descriptions and observations of their literacy practices, the teachers began by describing their literacy practices as those they supported through the use of a school-wide strategy pacing guide, which mostly focused on writing across the curriculum. Most teachers agreed that they tried to support this initiative, but that it was often difficult. As the study progressed teachers reported an increased

awareness of their practice as it pertained to literacy implementation. They described being "more aware" and noted that perhaps they were using more literacy practices than they had noticed previously.

In the analysis of the outcomes teachers anticipated for struggling adolescents, teachers' awareness and use of literacy practices increased and the teachers' sense of control over the outcomes of struggling students also changed. In the beginning of the study, the causes for the limited outcomes the teachers anticipated for struggling students mostly stemmed from external factors. As the study progressed the teachers, including those that had degrees in special education, expressed feeling more "empowered" to address these limitations within their own classrooms.

When addressing questions in reference to the effective components of the EIE PD experience, the teachers favored equally: (a) applicability of information, (b) exposure to literature, (c) autonomous systems, and (d) collaboration. The last section described the emergent theme that was found to be consistent throughout the study when discussing literacy in the content areas, but went beyond the two research questions. Teachers felt unsupported when addressing the needs of students who struggled, specifically those with disabilities, when trying to understand what literacy in the content areas entailed. They also felt that there was very little ongoing or relevant support in the PD opportunities geared toward addressing literacy in their content areas.

CHAPTER V

DISCUSSION AND CONCLUSION

In this chapter, the researcher provides a discussion of the findings of this study. The chapter begins with a summary of the investigation, followed by a section for each of the research questions, and then the limitations of this study. Lastly, the researcher discusses recommendations of the study in relation to EIE (exploratory, investigative, and experimental) professional development. This chapter concludes with suggestions for future research.

Summary of the Investigation

As mentioned in Chapter 1, Vygotsky (as cited in John-Steiner & Mahn, 1996, p.193) argued that social interactions with artifacts in the environment (e.g., language, beliefs, and science) are an essential component of development. He went on to explain that this development must occur in a social setting (external) before it is internalized and can lead to changes in behavior (practice). The researcher used this constructivist principle and supporting research to guide the development of an exploratory, investigative and experimental (EIE) professional development (PD) opportunity for content area teachers to address the literacy needs of struggling adolescents. The researcher examined how PD practices grounded in a constructivist approach support content area teachers to implement both core generic literacy strategies and specific disciplinary literacy strategies in order to assist struggling students, including those with disabilities. Specifically, the researcher explored four different areas of impact. First the researcher looked at how the EIE PD influenced teachers' descriptions and observations of their practice and the descriptions of the outcomes they anticipated for their students.

Second, the researcher investigated teachers' descriptions of the EIE PD practices the participating teachers reported as most useful and, third, the researcher looked at teachers' descriptions of literacy strategies for struggling students, specifically those with disabilities. Lastly, as this was a qualitative study, the researcher monitored for any longitudinal themes that arose throughout the study.

In their analysis of PD research in education, Hill, Beisiegel, and Jacob (2013) stated that "randomized trials…have not enhanced our knowledge of effective program characteristics" (p. 476) and this has left the field "without guidance" (p.476). Their research outlines a framework for PD research that is framed in stages, with Stage 1 consisting of a brief on-site pilot to ensure the practicability of the program features. It is this Stage 1 framework that guided this research and an exploratory case study design was used to investigate the research questions. As explained by Yin (2014), multiple data sources converge as part of the inquiry process in order for the researcher to build understanding about the topic under study. The researcher used a researcher's log, questionnaires, pre and post interviews, pre and post observations and focus group discussions to collect data during the three phases of the study in order to answer the research questions within this Stage 1 framework established by Hill, Beisiegel, and Jacob (2013).

Research Questions

This study, which examined the extent to which PD grounded in a constructivist approach- using an EIE process - supported content area teachers' efforts to implement both core and generic literacy strategies in order to assist struggling students, including those with disabilities. As the adolescent literacy crisis continues to draw attention and

students face the demands of tougher standards, addressing the needs of content area teachers in this area via PD is crucial, especially as researchers such as Lee, Grigg, and Donahue, (2007) stated that adolescents who struggle will have even a greater difficulty with specialized texts such as those found in the special areas of math, science and social studies. Despite this urgent need, the field of literacy in the content areas is currently underdeveloped. First, the field is divided into two sides representing content area literacy instruction and disciplinary literacy instruction even though there is some progress as researchers and practitioners leading the conversations and the research in the field of adolescent literacy believe that students and teachers can benefit from the cordial collaboration of the two sides (e.g., Brozo, Moorman, Meyer, & Stewart, 2013; Drapper, 2008; Faggella-Luby et al., 2012; Fang 2012, 2014; Fang & Coatoam, 2013; Warren, 2012). Second, content area teachers' attitudes toward teaching literacy are overall unfavorable (Chambers Cantrell et al., 2008; Karr, 2011; McCoss-Yergian & Krepps, 2010; Ness, 2008). Lastly, there exists today a research to practice gap as it pertains to PD opportunities for content area teachers. Teachers are in need of high-quality PD development opportunities that support them with implementing literacy practices in their classrooms in order to help struggling students.

This study primarily focused on teachers' responses to the EIE PD cycle, specifically their responses when describing their practice, the outcomes they anticipate for struggling students, the descriptions of their understanding of literacy strategies in the content areas, and when describing the PD practices they found most useful in the EIE PD sessions. This section will discuss these areas in detail and the findings in each area.

This section will also use the literature review in Chapter 2 of this study to draw conclusions in each area.

Descriptions of Their Practice

Most respondents in this study, including those with a special education background, reported an overall disconnect from literacy implementation and often saw the school's literacy pacing guide as an additional component to their already laden curriculum. As stated in Chapter 2, although research on content area literacy for adolescents is still in the beginning stages of development, the teaching of specific literacy strategies to struggling students in the content areas can have a meaningful impact on student outcomes (De La Paz & Felton, 2010). However, research has well-documented the reluctance of content area teachers to, and lack of preparation for, teaching literacy (Chambers Cantrell et al., 2008; Karr, 2011; McCoss-Yergian & Krepps, 2010; Ness, 2008). As the teachers in this study participated in the EIE PD, their descriptions began to change and the theme of awareness or increased understanding began to emerge. Although teachers did not get to a place where they described being completely comfortable, they noted that this increased awareness had helped them question previous beliefs and practices. When describing their practice, the teachers' responses to the EIE PD aligned with current research on professional development to support content area teachers' use of literacy practices, including teachers' perceptions regarding teaching literacy. First, research documents that although content area teachers' perspectives are starting to change, most teachers still communicate an overall reluctance to teach literacy or basic reading skills to students who struggle (Cantrell & Callaway, 2008; Cantrell & Hughes, 2008; Fisher & Ivy, 2005). Second, research has

shown the positive impact of effective PD opportunities on teachers' depth of learning. Steward (2014) explained that expert model PD opportunities were among the least effective PD practices, while PD sessions that provided multiple sessions and opportunities for collaboration were among the most beneficial. Although teachers in this dissertation study had multiple sessions and opportunities for collaboration, the findings support suggestions in the literature that PD should be at least six months in length in order to have positive effects on teacher learning, teacher knowledge and strategy use (Core, Bolen, Davis, & Rhodes, 2012; Garet, Porter, Desimone, Birman, & Yoon, 2001). However, it is important to consider that the framework described by Hill, Beisiegel, and Jacob (2013) drove this study. In their analysis of PD, the authors recommend that Stage1 research should be brief and be conducted to ensure feasibility of the program while also assessing program features for effectiveness. From these brief experiences, "new permutations and adaptations emerging via feedback from both teachers and developer observations" (p.479) should drive the continued development of the program. In their recommendations for future sessions, the teachers in this dissertation study recommended more sessions, spread further apart; many also thought weekly sessions were not manageable. Teachers also recommended that this type of PD cycle should be conducted at the beginning of the year and possibly as an on-going year-long experience.

Anticipated Outcomes for Adolescents Who Struggle

Part of question one of this study sought to understand how teachers describe the outcomes they anticipated for students, including those with disabilities, who struggle with literacy in the content areas. As noted in the researcher's journal, the topic of

struggling students and their anticipated outcomes, but specifically those with disabilities, often caused emotions to heighten during group discussions. Teachers, including those with a background in special education, especially in the beginning, had very strong opinions about why the literacy and educational outcomes they anticipated for these students were so dismal. These reasons were often external to their own teaching and included large classrooms, lack of support, lack of student preparedness and lack of student motivation, all of which they felt they had very little control over.

In the review of literature in Chapter 2, it is noted that the goal of culturally responsive education seeks to ensure equal educational opportunities for all students by capitalizing on students' socialized patterns of behavior and learning. This requires that teachers transition away from the traditional deficit model of instruction that often places blame on external factors such as language or culture (Nichols, Rupley, & Webb-Johnson, 2000). In Chapter 2, I also discussed that the classroom practices associated with culturally responsive instruction and how these are similar to those that also support engagement and motivation. This was a topic that the teachers discussed during the planning session on April 15, 2015, which supported them in identifying motivation as the topic to investigate and to experiment within the EIE PD.

Eventually the researcher began to note differences in the way teachers were interacting with the topic. As explained in Chapter 4, teachers began to shift from an external locus of control to internal locus of control regarding the academic outcomes of students with disabilities. The teachers began to share that they have a role to play in the outcomes of these students. Although the teachers did not make a solid transition to this belief system, conversations were beginning to take place. For example, during their

focus group discussion on May 13, 2016, which focused on a discussion centered on a presentation of the book titled *The New Psychology of Success*, the teachers described their increased understanding of how their own personal beliefs impacted the outcomes for these struggling students.

EIE PD Practices Teachers Report as Most Useful

There were several components of the EIE PD that the teachers found to be useful in supporting them with literacy implementation in the content areas. Primarily, the teachers found that autonomy in planning the sessions was the most useful. This was particularly useful when planning to address the very specific needs of their students, which the teachers reported often as being unique due to the large rural agricultural area, high poverty levels, and high immigrant populations in their school's community. However, many teachers also reported that autonomy was also the most difficult aspect of the EIE PD sessions. When explaining why this aspect of the EIE PD session was difficult, Samuel stated in the last focus group discussion that "I think it was mostly because we had not established our norms. We had not learned how to work together... many of us know each other from the school, but since we are in different departments, we don't really get to work together. We had to get to know each other and our individual quirks."

Ultimately, many other useful aspects of the PD where identified, including in-class support, applicable information, independent learning opportunities, collaboration with those in and out of their content area, the exposure to literature and research and, lastly, financial incentives. In a study examining a PD model for helping schools implement Common Core, Bolen, Davis, and Rhodes (2012) found that implementing PD

that (a) is content focused, (b) is data driven, (c) is ongoing, (d) is recognized by the leadership in the school, (e) is standards and strategy based, (f) is followed up, (g) is consistent, (h) is supportive and provides feedback, and (i) provides access to instructional materials increases teacher knowledge and strategy usage. The findings of this dissertation study align with this research. The teachers were not able to identify just one useful practice, but rather expressed that it was the combination of all of them that made the experience most useful. Figure 4 illustrates how each EIE PD component is foundational and interlocking with other components, and that it is the combination of these PD characteristics that ultimately provides the best support for content area teachers in their use of literacy practices.
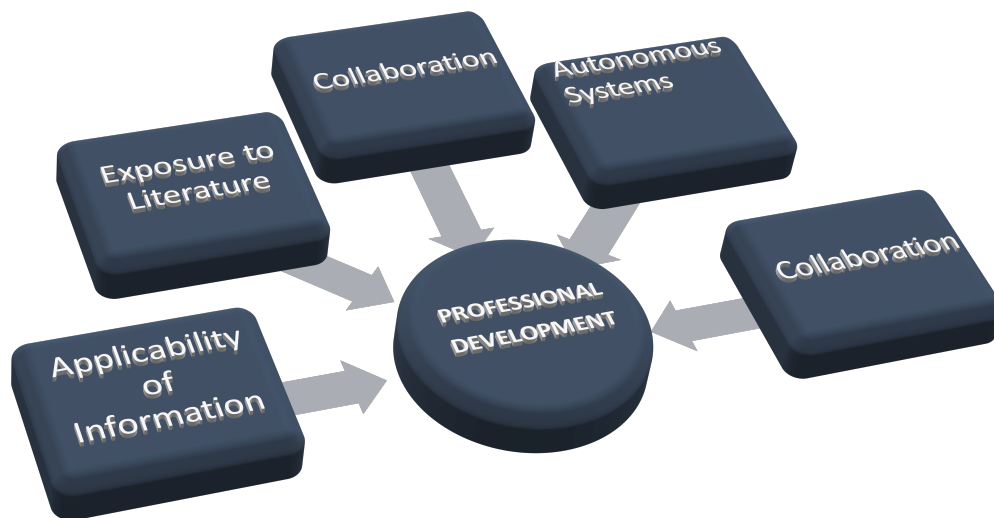

Figure 4. Effective components of EIE professional development. This figure illustrates the idea that effective PD for supporting content area teachers with literacy implementation is a combination of individual components and that each component's success is contingent on the other.

Teachers' Understanding of Disciplinary Literacy Practices for Struggling Students

From the first PD session geared toward introducing teachers to disciplinary literacy, the teachers wanted to be given a definition of what it was. Initially their understanding was defined by the implementation of a school-wide, content-area literacy pacing guide that suggested specific weekly writing/literacy strategies. For example, the science teachers used the pacing guide to plan for science journal writing prompts that focused on the strategy of the week, which could include for example summarizing or making inferences. Hence, the descriptions of their understanding of literacy were originally rooted in their ability to implement the use of summarizing and/or making inferences in the science journals. The teachers described these strategies as "generic" and often cited these activities as additional components to an already laden curriculum. However, many of the teachers also shared that they did what they could to help the school's initiative of supporting reading and writing. There was very little evidence to support the idea that the teachers felt that literacy was a naturally occurring part of their instructional routines, at least at the beginning.

As the teachers explored literacy in the content areas and its components, they expressed that they used literacy strategies more than they initially thought, and had just never considered those instructional strategies to be literacy strategies. The two teachers with special education background related these strategies more as remediation or tools to break down instruction, rather than literacy skills. This researcher interpreted this as evidence of teachers' increased awareness. Toward the end of the EIE PD sessions, the teachers expressed that they indeed had "broadened their definitions" or that their definition or understanding of literacy in the content area was "evolving," but many also

expressed that they felt that they has just "scraped the top." All teachers, including those with a special education background, agreed in the last focus group discussion that disciplinary literacy was more intricate than they had originally thought, but that they believed they had a better understanding of it after the PD.

Taken together, the data from all three phases show some growth in teacher understanding of literacy in the content areas, albeit not all encompassing. This can be explained by the limitations of time and the structured framework to have the teachers investigate one of the PD components at a time. However, it is important to note that although the teachers only focused on *motivation*, all of the teachers had opportunities to increase motivation using any of the strategies discussed or a strategy that they had discussed during their individual post-observation session. An example of this is when Ann decided to use the CORI (Concept-Oriented Reading Instruction) instructional program, which was reviewed during one of the group sessions as a way to increase motivation with her students. The teacher described this experience in her post interview, "….when we decided to focus on motivation as a group, I was able to focus on what I wanted [to learn] as well. I wanted to learn more about CORI, and (I) discussed that with you. Then we decided to increase motivation using CORI. I started to tie the two together and ultimately made it better and more specific to my needs and preferences."

Literacy Support in the Content Areas

Support was a common thread that ran through all of the other themes of this study. Throughout their discussion the teachers cited lack of support as a general barrier to understanding and/or implementing literacy strategies in their content and, hence, to supporting students who struggle in their class with literacy. Teachers reported

systematic limitations that they felt impeded their ability to implement literacy strategies. Some of these systematic limitations came in the form of lack of exposure to specific strategies, lack of follow up to PD experiences geared toward literacy implementation in the content areas, lack of in-class support for students with disabilities or those from non-English speaking homes.

When discussing the most useful components of the EIE PD experience, support was mentioned as a positive aspect of the experience. Teachers expressed that the support they received in order to explore, investigate and later experiment with ideas and concepts was an integral part of the experience. As stated in Chapter 2, social interactions with artifacts in the environment (i.e., language, beliefs, and science) are an essential component of development (as cited in John-Steiner & Mahn, 1996, p.193). This EIE PD provided teachers with supported opportunities that (a) helped to develop a common language during the initial PD session, (b) that provided a platform for collaborate discussions so that they could challenge their beliefs and those of others, and (c) that supported the teachers with investigating literature in the field.

Taken together, support emerged as part of the integral components of a constructivist EIE PD approach. Ongoing, systematic support is a necessary aspect of supporting teachers as they explore, investigate and experiment with the complicated topic of literacy and its interlocking components. Examples of support in this study included providing the teachers with (a) opportunities for collaboration, (b) in-class support, (c) access to literature in the field, (d) individual sessions and, (e) autonomous opportunities. This finding is in line with the literature in Chapter 2 which stated that effective PD (a) has opportunities for collaboration, (b) is consistent, (c) provides support

with feedback, and (d) provides access to instructional materials (Core, Bolen, Davis, & Rhodes, 2012; Desimone, 2009; Garet, Porter, Desimone, Birman, & Yoon, 2001; McLeskey & Waldron, 2002).

Limitations

When considering the findings of this study, the reader must consider that this study was aligned to the recommendations delineated by Hill, Beisiegel and Jacob (2013) that suggest that "scholars should execute more rigorous comparisons of professional development design elements at the initial stages of program development" (p.478). This initial stage has a focus on the "professional development program, the teachers in the program and the relationships between these two elements of the system" (p.479). The authors recommended multiple, quick and short permutations of this stage in order to refine the PD itself based on the perceptions and informal feedback from the participants and observations of the investigator or PD developer. The reader of this study, when noting the changing participant practice, should consider that this study only represents one cycle within this stage, and that future cycles need to be conducted in order to address the EIE PD itself. As emphasized by Hill, Beisiegel and Jacob (2013), generalizability cannot be assumed in these early states of program development.

Additionally, although the administration at the school was aware and supportive of the study implementation, the study itself was not seen as a school-sponsored or supported PD experience. Hence, many schedule conflicts arose as well as overall conflicts in reference to implementing practices or routines that the teachers deemed important. Although one aim of the study was to empower content area teachers at the school site to explore, investigate and experiment with issues in relation to literacy in

order to address their limitations, teachers could not really do so because school programs were already in place. This limitation is in line with the research in the field that stresses the importance of support from the school leadership to implement new strategies or support teacher changes in instructional practices. More work in the planning stages, preferably toward the beginning of the school year, that involves administration participation, would have been more ideal in order to encourage school and leadership support.

The time of year also presented many challenges in terms of continuity, focus, and data collection. The implementation of the PD sessions was often cancelled due to conflicts with end-of-year planning and testing preparations, especially toward the beginning of the EIE PD implementation. Although the teachers managed to attend and even exceeded the number of hours initially planned for the study, many of them expressed that it was difficult to focus on the EIE experience while also undertaking the additional responsibilities that come with the end of the year. The researcher also found that the timing created some difficulty with data collection. For example, the researcher noted in her researcher's journal and from the data from the teacher observations that many teachers did not explicitly teach the steps on how to use the reading strategies or certain content specific literacy strategies evidenced in either instruction or in artifacts. However, because it was the last months of the year, it was difficult to assess whether or not the teachers had taught these strategies earlier in the year. Although some teachers stated that they had in fact taught the students the steps and purpose for teaching these strategies, little evidence of this was noted through observations or artifacts.

Additionally, it was difficult for the researcher to describe or assess the depth and/or accuracy of these lessons.

Lastly, the school where this study was conducted is in a very rural setting in Miami-Dade County. The agricultural industry attracts many immigrants to the area, many who work in the industry as farmworkers or "pickers". The teachers expressed many times that many of these students of immigrants often had very little schooling or formal education opportunities in their countries and often came to the United States not speaking English or Spanish. Hence the classroom experiences in relation to literacy in the content areas that the teachers in this study describe may be unique to this setting. Therefore, caution needs to be taken when considering the findings of this study.

Recommendations as a Result of This Study

With the current trend in education to increase educational standards for all students, especially in the area of literacy, it is imperative that content area teachers be provided support when implementing literacy strategies in their content area classrooms so that they can provide support in this area to struggling adolescents, including those with disabilities. After reviewing the literature, developing and implementing the EIE PD cycle, and analyzing the data collected from observations, teacher reflections and interviews and focus group discussions, several recommendations can be made. First, PD has to address and validate the current perceptions or concerns among participating content area teachers in relation to literacy implementation. Teachers must reflect, explore and investigate these obstacles in relation to their needs and their students' needs.

Second, literacy PD for content area teachers must provide a scaffold showing what literacy instruction in the content areas entails. Literacy is a complex and intricate

phenomenon that has many essential components. A student's cultural uniqueness, basic reading abilities, motivational needs and knowledge of content specific strategies are all essential components of literacy development and teachers need a basic understanding of these components in order to make instructional and pedagogical decisions. From this base, teachers can create an environment that is individualized and specific to their own school and classrooms needs.

Lastly, PD designed to support content area teacher's use of literacy strategies in the content areas should provide teachers the opportunities to drive the literacy PD content in order for the content to be applicable to the teachers and students at a particular setting, while also providing teachers with the supports they need to adequately do so. These supports may include: (a) access to relevant research, materials and information about literacy in their areas; (b) in-class support; (c) opportunities for independent learning and/or experimentation; (d) opportunities for collaboration; (e) opportunities for reflecting on individual practices and program needs; and (f) opportunities to earn incentives to support their growth.

Recommendations for Future Research

Although this study represents the first phase of developing the EIE PD, further cycles in this phase are necessary. As recommended by Hill, Beisiegel, and Jacob (2013), in their analysis of PD research in education, phase one should involve successive sessions with new permutations and adaptations emerging via feedback from both teachers and developer observations" (p. 479). Although the researcher and teachers involved in this study saw many benefits, there are several adaptations to the EIE cycle that are recommended in order to continue to refine the intervention. The first

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recommendation is to begin the study during the first semester of the school year. Many times teachers expressed that the end of the year was too late to make changes to instruction or behavior. Teachers recommended that the beginning of the year would be more beneficial. The second recommendation is to include more initial sessions for increasing general knowledge and beginning to explore literacy with the teachers. Although the teachers expressed having a greater understanding of the components, they also expressed that the time between the initial session and implementation of the cycle was too short. Teachers stated that they needed more time to digest and discuss the articles and information shared during the initial session. Lastly, teachers shared that the weekly hour sessions were too consecutive and also too short. Teachers recommended longer sessions that would be spread farther apart. This would allow time to digest information and to relate information to their practice.

REFERENCES

Acy-Ippolito, J., Steele, J. L., & Samson, J. F. (2008). Introduction: Why adolescent literacy matters now. *Harvard Educational Review*, *78*(1), 1-6.

Adams, A. E., & Pegg, J. (2012). Teachers' enactment of content literacy strategies in secondary science and mathematics classes. *Journal of Adolescent & Adult Literacy, 56(*2), 151-161.

Alvermann, D. E. (2002). Effective literacy instruction for adolescents. *Journal of Literacy Research, 34*(2), 189-208.

Alvermann, D. E., Rezak, A. T., Mallozzi, C. A., Boatright, M. D., & Jackson, D. F. (2011). Reflective practice in an online literacy course: Lessons learned from attempts to fuse reading and science instruction. *Teachers College Record*, *113*(1), 27-56.

Artiles, A. J., Kozleski, E. B., Trent, S. C., Osher, D., & Ortiz, A. (2010). Justifying and explaining disproportionality, 1968–2008: A critique of underlying views of culture. *Exceptional Children, 76*(3), 279-299.

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report, 13*(4), 544-559.

Bereiter, C., & Bird, M. (1985). Use of thinking aloud in identification and teaching of reading comprehension strategies. *Cognition and Instruction*, *2*(2), 131-156.

Berkeley, S., Mastropieri, M. A., & Scruggs, T. E. (2011). Reading comprehension strategy instruction and attribution retraining for secondary students with learning and other mild disabilities. *Journal of Learning Disabilities, 44*(1), 18-32.

Berkeley, S., Scruggs, T. E., & Mastropieri, M. A. (2010). Reading comprehension instruction for students with learning disabilities, 1995—2006: A meta-analysis. *Remedial & Special Education, 31*(6), 423-436.

Birman, B. F., Desimone, L., Porter, A. C., & Garet, M. S. (2000). Designing professional development that works. *Educational Leadership*, *57*(8), 28-33.

Birr Moje, E., Overby, M., Tysvaer, N., & Morris, K. (2008). The complex world of adolescent literacy: Myths, motivations, and mysteries. *Harvard Educational Review, 78*(1), 107-154.

Boardman, A. G., Roberts, G., Vaughn, S., Wexler, J., Murray, C. S., & Kosanovich, M. (2008). *Effective instruction for adolescent struggling readers: A practice brief*. Portsmouth, NH: Center on Instruction.

Bolen, J., Davis, E., & Rhodes, M. (2012). Using a theory-based model for professional development: Implementing a national common core curriculum. *Gateway to Leadership and Learning,* 15-22.

Boyle, B., Lamprianou, I., & Boyle, T. (2005). A longitudinal study of teacher change: What makes professional development effective? Report of the second year of the study. *School Effectiveness and School Improvement, 16*(1), 1-27.

Brozo, W. G., Moorman, G., Meyer, C., & Stewart, T. (2013). Content area reading and disciplinary literacy: A case for the radical center. *Journal of Adolescent & Adult Literacy, 56*(5), 353-357.

Bryant, D. P., Linan-Thompson, S., Ugel, N., Hamff, A., & Hougen, M. (2001). The effects of professional development for middle school general and special education teachers on implementation of reading strategies in inclusive content area classes. *Learning Disability Quarterly, 24*(4), 251-264.

Bryant, D. P., Ugel, N., Thompson, S., & Hamff, A. (1999). Instructional strategies for content-area reading instruction. *Intervention in School and Clinic, 34*(5), 293-302.

Buell, M. J., Hallam, R., Gamel-Mccormick, M., & Scheer, S. (1999). A survey of general and special education teachers' perceptions and inservice needs concerning inclusion. *International Journal of Disability, Development and Education, 46*(2), 143-156.

Burns, M. K., Hodgson, J., Parker, D. C., & Fremont, K. (2011). Comparison of the effectiveness and efficiency of text previewing and pre-teaching keywords as small-group reading comprehension strategies with middle-school students. *Literacy Research and Instruction, 50*(3), 241-252.

Caldwell, J., & Leslie, L. (2010). Thinking aloud in expository text: Processes and outcomes. *Journal of Literacy Research, 42*(3), 308-340.

Callins, T. (2006). Culturally responsive literacy instruction. *Teaching Exceptional Children*, *39*(2), 62-65.

Campbell, J. R., Hombo, C. M., & Mazzeo, J. (2000). NAEP Trends. National Center for Education Statistics, 2(4), 31.

Cantrell, S. C., & Callaway, P. (2008). High and low implementers of content literacy instruction: portraits of teacher efficacy. *Teaching and Teacher Education*, *24*(7), 1739-1750.

Cantrell, S. C., & Hughes, H. K. (2008). Teacher efficacy and content literacy implementation: an exploration of the effects of extended professional development with coaching. *Journal of Literacy Research, 40*(1), 95-127.

Chambers Cantrell, S., David Burns, L., & Callaway, P. (2008). Middle-and high-school content area teachers' perceptions about literacy teaching and learning. *Literacy Research and Instruction*, *48*(1), 76-94.

Christophe, K. (2011). Teaching reading in the secondary content area classroom as perceived by secondary content area teachers. (Doctoral dissertation) Available from ProQuest Dissertations and Theses Database. UMI No. 3489814)

Coiro, J. (2011). Talking about reading as thinking: Modeling the hidden complexities of online reading comprehension. *Theory Into Practice, 50*(2), 107-115.

Coleman, D., & Pimentel, S. (2012). Revised publishers' criteria for the Common Core State Standards in English language arts and literacy, Grades 3–12. Retrieved from the Common Core Standards Initiative at http://165.74.253.64/be/cc/cd/documents/sept2012item2aatt3.pdf

Cooper, K. (2014). Eliciting engagement in the high school classroom: a mixed-methods examination of teaching practices. *American Educational Research Journal, 51*(2), 363-402.

Copeland, S. R., Keefe, E. B., Calhoon, A. J., Tanner, W., & Park, S. (2011). Preparing teachers to provide literacy instruction to all students: Faculty experiences and perceptions. *Research and Practice for Persons with Severe Disabilities, 36*(3-4), 3-4.

Cumming, A. (2013). Multiple Dimensions of Academic Language and Literacy Development. *Language Learning, 63*, 130-152.

Daggett, W. R., & Hasselbring, T. S. (2007). *What we know about adolescent reading.* New York, NY: International Center for Leadership in Education.

Darling-Hammond, L. (1999). *Teacher quality and student achievement: A review of state policy evidence.* Seattle, WA: Center for the Study of Teaching and Policy, University of Washington.

Darling-Hammond, L., & Ball, D. L. (1998). *Teaching for high standards: What policymakers need to know and be able to do*. Arlington, VA: National Commission on Teaching & America's Future.

Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession*. Washington, DC: National Staff Development Council.

De La Paz, S., & Felton, M. K. (2010). Reading and writing from multiple source documents in history: Effects of strategy instruction with low to average high school writers. *Contemporary Educational Psychology, 35*(3), 174-192.

Delpit, L. (2003). Educators as" seed people" growing a new future. *Educational Researcher*, *32*(7), 14-21.

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher, 38(3)*, 181-199.

Desimone, L. M. (2011). A primer on effective professional development. *Phi Delta Kappan*, *92*(6), 68-71.

Desimone, L., Smith, T., & Phillips, K. (2013). Linking student achievement growth to professional development participation and changes in instruction: A longitudinal study of elementary students and teachers in Title I schools. *Teachers College Record*, 115(5), 1-46.

Draper, R. J. (2008). Redefining content-area literacy teacher education: Finding my voice through collaboration. *Harvard Educational Review*, *78*(1), 60-83.

Duncan, T., Lee, S. W. Y., Scarloss, B., Shapley, K. L., &Yoon, K. S., (2007). Reviewing the Evidence on How Teacher Professional Development Affects Student Achievement. Issues & Answers. REL 2007-No. 033. Regional Educational Laboratory Southwest (NJ1).

Ehlinger, J., & Pritchard, R. (1994). Using think alongs in secondary content areas. *Literacy Research and Instruction, 33*(3), 187-205.

Ehren, B. J. (2009). Looking through an adolescent literacy lens at the narrow view of reading. *Language, Speech, and Hearing Services in Schools*, *40*(2), 192.

Faggella-Luby, M. N., Graner, P. S., Deshler, D. D., & Drew, S. V. (2012). Building a house on sand: Why disciplinary literacy is not sufficient to replace general strategies for adolescent learners who struggle. *Topics in Language Disorders, 32*(1), 69-84.

Fang, Z. (2012). Approaches to Developing Content Area Literacies: A Synthesis and a Critique. *Journal of Adolescent & Adult Literacy*, *56*(2), 103-108.

Fang, Z. (2014). Preparing content area teachers for disciplinary literacy instruction. *Journal of Adolescent & Adult Literacy*, *57*(6), 444-448.

Fenty, N. n., McDuffie-Landrum, K., & Fisher, G. (2012). Using collaboration, co-teaching, and question answer relationships to enhance content area literacy. *Teaching Exceptional Children*, *44*(6), 28-37.

Fine, J., Zygouris-Coe, V., Senokossoff, G., & Fang, Z. (2011). *Secondary teachers' knowledge, beliefs, and self-efficacy to teach reading in the content areas: Voices following professional development*. In M.S. Plakhotnik, S. M. Nielsen, & D. M. Pane (Eds.), Proceedings of the Tenth Annual College of Education & GSN Research Conference (pp. 24-28). Miami, FL: Florida International University.

Fisher, D., & Frey, N. (2008). What does it take to create skilled readers? Facilitating the transfer and application of literacy strategies. *Voices from the Middle, 15*(4), 40-25.

Fisher, D., Frey, N., & Lapp, D. (2011). Coaching middle-level teachers to think aloud improves comprehension instruction and student reading achievement. *The Teacher Educator*, *46*(3), 231-243.

Fisher, D., & Ivy, G. (2005). Literacy and language as learning in content-area classes: A departure from "every teacher a teacher of reading." Action in Teacher Education, 27(2), 3–11.

Flippo, R. F. (2012). *Reading researchers in search of common ground: The expert study revisited.* New York, NY: Routledge.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of educational research, 74*(1), 59-109.

Frey, N., & Fisher, D. (2010). Identifying instructional moves during guided learning. *The Reading Teacher, 64*(2), 84-95.

Gage, N. A., Lierheimer, K. S., & Goran, L. G. (2012). Characteristics of students with high-incidence disabilities broadly defined. *Journal of Disability Policy Studies, 23*(3), 168-178.

Garet, M., Porter, A., Desimone, L., Birman, B., Yoon, K. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915–945.

Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research, 71*(2), 279-320.

Gonzalez, B. (2014). A six-year review of student success in a biology course using lecture, blended, and hybrid methods. *Journal of College Science Teaching, 43*(6), 14-19

Goodman, J. I., Hazelkorn, M., Bucholz, J. L., Duffy, M. L., & Kitta, Y. (2011). Inclusion and graduation rates: What are the outcomes? *Journal of Disability Policy Studies, 21*(4), 241-252.

Gottfried, A. E., Fleming, J. S., & Gottfried, A. w. (2001). Continuity of academic intrinsic motivation from childhood through late adolescence: a longitudinal study. *Journal of Educational Psychology, 93*(1), 3-13.

Griner, A., & Stewart, M. (2013). Addressing the achievement gap and disproportionality through the use of culturally responsive teaching practices. *Urban Education, 48(4)*, 585-621.

Grskovic, J. A., & Trzcninka, S. M. (2011). Essential standards for preparing secondary content teachers to effectively teach students with mild disabilities in included settings. *American Secondary Education, 39*(2), 94-106.

Guest, G., Namey, E. E., & Mitchell, M. L. (2013). Collecting qualitative data: A field manual for applied research. Thousand Oaks, CA: Sage.

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice, 8*(3), 381-391.

Hall, L. A. (2005). Teachers and content area reading: Attitudes, beliefs and change. *Teaching and Teacher Education, 21*(4), 403-414.

Hall, L. A., Johnson, A. S., Juzwik, M. M., Wortham, S. E., & Mosley, M. (2010). Teacher identity in the context of literacy teaching: Three explorations of classroom positioning and interaction in secondary schools. *Teaching and Teacher Education, 26*(2), 234-243.

Harmon, D. (2012). Culturally responsive teaching though a historical lens: will history repeat itself? *Interdisciplinary Journal of Teaching & Learning, 2*(1), 12-22.

Harris T. L., & R. E. Hodges (Eds.). (1995). The literacy dictionary: The vocabulary of reading and writing. Newark, DE: International Reading Association.

Harwell, S. H. (2003). Teacher professional development: It's not an event, it's a process. Waco, TX: CORD. Retrieved January, 21, 2004.

Haskins, R., Murnane, R., Sawhill, I. V., & Snow, C. (2012). Can academic standards boost literacy and close the achievement gap. Paper. Washington, DC: Brookings Institution, The Future of Children. Retrieved February, 20, 2013.

Helfeldt, J. P., & Henk, W. A. (1990). Reciprocal question-answer relationships: an instructional technique for at-risk readers. *Journal of Reading,* 33, 509-514.

Heller, R., & Greenleaf, C. L. (2007). *Literacy Instruction in the Content Areas: Getting to the Core of Middle and High School Improvement*. Alliance for Excellent Education. http://carnegie.org/fileadmin/Media/Publications/PDF/Content_Areas_report.pdf

Hemphill, F. C., & Vanneman, A. (2011). *Achievement Gaps: How Hispanic and White Students in Public Schools Perform in Mathematics and Reading on the National Assessment of Educational Progress*. Statistical Analysis Report. NCES 2011-459. Washington, D.C.: National Center for Education Statistics.

Henry, N. (1957). *In-service education 56th year-book, Part I, 35-66*. Chicago, IL; University of Chicago.

Hidden curriculum. (2014, August 26). In S. Abbott (Ed.), The glossary of education reform. Retrieved from http://edglossary.org/hidden-curriculum

Hill, H. C., Beisiegel, M., & Jacob, R. (2013). Professional development research consensus, crossroads, and challenges. *Educational Researcher, 42*(9), 476-487.

Hollenbeck, A. F., & Kalchman, M. (2013). Professional development for conceptual change: extending the paradigm to teaching reading comprehension in US schools. *Professional Development in Education*, *39*(5), 638-655.

Huffman, D., Thomas, K., & Lawrenz, F. (2003). Relationship between professional development, teachers' instructional practices, and the achievement of students in science and mathematics. *School Science and Mathematics, 103*(8), 378-387.

Jacobs, V. A. (2008). Adolescent literacy: Putting the crisis in context. *Harvard Educational Review*, *78*(1), 7-39.

John-Steiner, V., & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational Psychologist, 31*(3-4), 191-206.

Kane, T. J., & Staiger, D. O. (2012). *Gathering feedback for teaching. Measures of Effective Teaching Project*. Seattle, WA: Bill and Melinda Gates Foundation.

Kamil, M. (2003). *Adolescent Literacy*. Department of Education Report.

Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., & Torgesen, J. (2008). Improving Adolescent Literacy: Effective Classroom and Intervention Practices. IES Practice Guide. NCEE 2008-4027. National Center for Education Evaluation and Regional Assistance.

Karr, C. (2011). *The attitude of teachers towards teaching reading in the content areas* (unpublished doctoral dissertation), The University of the West Indies. Retrieved from:
http://www.uwispace.sta.uwi.edu/dspace/bitstream/handle/2139/13875/Colin%20 Karr.pdf?sequence=1

Kearns, D. M., & Fuchs, D. (2013). Does cognitively focused instruction improve the academic performance of low-achieving students? *Exceptional Children, 79*(3), 263-290.

Kim, A. H., Vaughn, S., Wanzek, J., & Wei, S. (2004). Graphic organizers and their effects on the reading comprehension of students with LD a synthesis of research. *Journal of Learning Disabilities, 37*(2), 105-118.

Kinniburgh, L. H., & Shaw, E. J. (2009). Using question-answer relationships to build reading comprehension in science. *Science Activities, 45*(4), 19-26.

Kinniburgh, L. l., & Baxter, A. a. (2012). Using question answer relationships in science instruction to increase the reading achievement of struggling readers and students with reading disabilities. *Current Issues in Education, 15*(2), 1-9.

Klingner, J. K., Artiles, A. J., Kozleski, E., Harry, B., Zion, S., Tate, W., ... & Riley, D. (2005). *Addressing the disproportionate representation of culturally and linguistically diverse students in special education through culturally responsive educational systems. Education Policy Analysis Archives, 13*(38), n38.

Koh, M. S., & Robertson, J. S. (2003). School reform models and special education. *Education and Urban Society, 35*(4), 421-442.

Kosko, K. W., & Wilkins, J. M. (2009). General educators' in-service training and their self-perceived ability to adapt instruction for students with IEPs. (Undetermined). *Professional Educator, 33*(2), 1-10.

Kroeger, M., Blaser, S., Raack, L., Cooper, C., & Kinder, A. (2000). Professional Development & Student Achievement. NCREL's Learning Point, 2(1), n1.

Ku, K. Y., & Ho, I. T. (2010). Metacognitive strategies that enhance critical thinking. *Metacognition and Learning, 5*(3), 251-267.

Lee, C. D., & Spratley, A. (2010). *Reading in the Disciplines: The Challenges of Adolescent Literacy.* Final Report from Carnegie Corporation of New York's Council on Advancing Adolescent Literacy. Carnegie Corporation of New York.

Lee, J. (2014). The relationship between student engagement and academic performance: is it a myth or reality? *Journal of Educational Research*, *107*(3), 177-185.

Lee, J., Griggs, W. S., & Donahue, P. L. (2007). Nation's report card: Reading (NCES 2007-496). Washington, DC: US Department of Education, Institute of Education Sciences. National Center for Education Statistics.

Lichtman, M. (2012). Qualitative Research in Education: A User's Guide: A User's Guide. Sage.

Losen, D. J., & Skiba, R. J. (2010). *Suspended education: Urban middle schools in crisis.* Retrieved from https://escholarship.org/uc/item/8fh0s5dv#page-1

Mack, N., Woodsong, C., MacQueen, K. M., Guest, G., & Namey, E. (2005). Qualitative research methods: a data collectors field guide.

Manset-Williamson, G., & Nelson, J. M. (2005). Balanced, strategic reading instruction for upper-elementary and middle school students with reading disabilities: A comparative study of two approaches. *Learning Disability Quarterly*, *28*(1), 59-74.

Margolis, J., & Doring, A. (2012). The fundamental dilemma of teacher leader-facilitated professional development; Do as I (kind of) say, not as I (sort of) do. *Educational Administration Quarterly*, *48*(5), 859-882.

Markow, D., & Pieters, A. (2012). *The Metlife survey of the American teacher: teachers, parents and the economy*. New York, NY: Metlife.

Marlow, L., Inman, D., & Shwery, C. (2005). To what extent are literacy initiatives being supported: important questions for administrators? *Reading Improvement*, *42*(3), 179-186.

Marrongelle, K., Sztajn, P., & Smith, M. (2013). Scaling up professional development in an era of common state standards. *Journal of Teacher Education, 64*(3), 202-211.

Mastropieri, M. A., Scruggs, T. E., & Graetz, J. E. (2003). Reading comprehension instruction for secondary students: challenges for struggling students and teachers. *Learning Disability Quarterly, 26*(2), 103-116.

McCoss-Yergian, T., & Krepps, L. (2010). Do teacher attitudes impact literacy strategy implementation in content area classrooms? *Journal of Instructional Pedagogies, 4*, 1-18.

McKeown, R. G., & Gentilucci, J. L. (2007). Think-aloud strategy: Metacognitive development and monitoring comprehension in the middle school second-language classroom. *Journal of Adolescent & Adult Literacy*, *51*(2), 136-147.

McLaughlin, M., & Marsh, D. (1978). Staff development and school change. *The Teachers College Record*, *80*(1), 69-94.

McLeskey, J., & Waldron, N. L. (2011). Educational programs for elementary students with learning disabilities: Can they be both effective and inclusive? *Learning Disabilities Research & Practice, 26*(1), 48-57.

Meyer, C. K. (2013). The literacy needs of adolescents: what do content-area teachers know? *Action in Teacher Education*, *35*(1), 56-71.

Mills, A. J., Durepos, G., & Wiebe, E. (Eds.). (2009). Encyclopedia of case study research (Vol. 2). Sage Publications.

Moller, S., Stearns, E., Mickelson, R., Bottia, M., & Banerjee, N. (2014). Is academic engagement the panacea for achievement in mathematics across racial/ethnic groups? Assessing the role of teacher culture. *Social Forces, 92*(4), 1513-1544.

Moore, D. W., Bean, T. W., Birdyshaw, D., & Rycik, J. A. (1999). Adolescent Literacy: A Position Statement for the Commission on Adolescent Literacy of the International Reading Association.

Moore, D. W., Readence, J. E., & Rickelman, R. J. (1983). An historical exploration of content area reading instruction. *Reading Research Quarterly*, 419-438.

Moss, J., Schunn, C. D., Schneider, W., McNamara, D. S., & VanLehn, K. (2010). An fMRI study of strategic reading comprehension. In Proceedings of the Thirty-second Annual Conference of the Cognitive Science Society (pp. 1319-1324).

National Joint Committee on Learning Disabilities. (2008). Adolescent Literacy and Older Students with Learning Disabilities [Technical Report]. Available from www.asha.org/policy. - See more at: http://www.asha.org/policy/TR2008-00304/#sthash.E9W9eFHI.dpuf

National Reading Panel (US), National Institute of Child Health, & Human Development (US). (2000). Report of the national reading panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its

implications for reading instruction: Reports of the subgroups. National Institute of Child Health and Human Development, National Institutes of Health.

NCTE Executive Committee. (2008). The NCTE definition of 21st Century literacies. National Council of Teachers of English. NCTE, 15.

Ness, M. K. (2008). Supporting secondary readers: when teachers provide the "what," not the "how". *American Secondary Education, 37*(1), 80-95.

Ness, M. K. (2009). Reading comprehension strategies in secondary content area classrooms: Teacher use of and attitudes towards reading comprehension instruction. *Reading Horizons, 49*(2), 5.

Nichols, W., Rupley, W. H., & Webb-Johnson, G. (2000). Teacher's role in providing culturally responsive literacy instruction. *Reading Horizons, 41*(1), 1-18.

Nieto, S. (2010). Language, culture, and teaching: Critical perspectives. Routledge.

Nieto, S. M. (2002). Profoundly multicultural questions. *Educational Leadership*, *60*(4), 6-10.

O'Brien, D. G., Stewart, R. A., & Moje, E. B. (1995). Why content literacy is difficult to infuse into the secondary school: Complexities of curriculum, pedagogy, and school culture. *Reading Research Quarterly, 30*(3), 442–463.

Olson, C. B., & Land, R. (2007). A cognitive strategies approach to reading and writing instruction for English language learners in secondary school. *Research in the Teaching of English*, 269-303.

Oster, L. (2001). Using the think-aloud for reading instruction. *The Reading Teacher*, 64-69.

Palincsar, A. S., Collins, K. M., Marano, N. L., & Magnusson, S. J. (2000). Investigating the engagement and learning of students with learning disabilities in guided inquiry science teaching. *Language, Speech, and Hearing Services in the Schools,* 31, 240-251.

Pallas, A. M., Natriello, G., & McDill, E. L. (1989). The changing nature of the disadvantaged population current dimensions and future trends. *Educational Researcher*, *18*(5), 16-22.

Paris, S. G., Lipson, M. Y., & Wixson, K. K. (1983). Becoming a strategic reader. *Contemporary Educational Psychology, 8*(3), 293-316.

Park, T. D., & Osborne, E. (2006). Agriscience teachers' attitudes toward implementation of content area reading strategies. *Journal of Agricultural Education, 47*(4), 39.

Pearson, P. D., Moje, E., & Greenleaf, C. (2010). Literacy and science: Each in the service of the other. *Science*, *328*(5977), 459-463.

Polkinghorne, F. W., Hagler, B., & Anderson, M. (2010). Reading skill development: A survey of need and responsibility. *Delta Pi Epsilon Journal*, *52*(1), 32-42.

Porter, A., McMaken, J., Hwang, J., & Yang, R. (2011). Common core standards the new US intended curriculum. *Educational Researcher*, *40*(3), 103-116.

Raphael, T. E., & Au, K. H. (2005). QAR: Enhancing comprehension and test taking across grades and content areas. *The Reading Teacher*, *59*(3), 206-221.

Reeve, J., & Lee, W. (2014). Students' classroom engagement produces longitudinal changes in classroom motivation. *Journal of Educational Psychology*, *106*(2), 527-540.

Reisman, A. (2012). Reading like a historian: A document-based history curriculum intervention in urban high schools. *Cognition and Instruction*, *30*(1), 86-112.

Saldana, J. (2009). An introduction to codes and coding. The coding manual for qualitative researchers, 1-31.

Schmidt, R. J., Rozendal, M. S., & Greenman, G. G. (2002). Reading instruction in the inclusion classroom: research-based practices. *Remedial & Special Education, 23*(3), 130-140.

Schumm, J. S., & Vaughn, S. (1995). Getting ready for inclusion: Is the stage set? Learning Disabilities Research & Practice.

Schutt, R. K. (2011). Investigating the social world: The process and practice of research. Sage Publications.

Shanahan, C., Shanahan, T., & Misischia, C. (2011). Analysis of expert readers in three disciplines: History, mathematics, and chemistry. *Journal of Literacy Research, 43*(4), 393-429.

Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review*, *78*(1), 40-59.

Shanahan, T., & Shanahan, C. (2012). What is disciplinary literacy and why does it matter? *Topics in Language Disorders, 32*(1), 7-18.

Siebert, D., & Draper, R. J. (2008). Why content-area literacy messages do not speak to mathematics teachers: a critical content analysis. *Literacy Research & Instruction, 47*(4), 229-245.

Snow, C. E., & Biancarosa, G. (2003). Adolescent literacy and the achievement gap: What do we know and where do we go from here? New York: Carnegie Corporation.

Snow, C. E., Griffin, P., & Burns, M. S. The NAE Subcommittee on Teaching Reading (2005). Knowledge to support the teaching of reading: Preparing teachers for a changing world.

Spencer, V. G., Garcia-Simpson, C., Carter, B. B., & Boon, R. T. (2008). If You Teach-- You Teach Reading. International Journal of Special Education, 23(2), 1-7.

Stinebrickner, T., & Stinebrickner, R. (2013). *Academic performance and college dropout: Using longitudinal expectations data to estimate a learning model* (No. w18945). National Bureau of Economic Research.

Swanson, H. L. (1999). Reading research for students with LD: A meta-analysis of intervention outcomes. *Journal of Learning Disabilities, 32*(6), 504-532.

The NCTE Definition of 21st Century Literacies. (2008). Retrieved from http://www.ncte.org/positions/statements/21stcentdefinition)

Torgesen, J. K., Houston, D. D., Rissman, L. M., Decker, S. M., Roberts, G., Vaughn, S. & Lesaux, N. (2007). *Academic literacy instruction for adolescents: A guidance document from the Center on Instruction*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

Trabasso, T., & Bouchard, E. (2002). Teaching readers how to comprehend text strategically. Comprehension instruction: Research-based best practices, 176-200.

Trowler, V. (2010). Student engagement literature review. York: Higher Education Academy.

U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP)

Vacca, R. T., Vacca, J. A. L., & Mraz, M. E. (2005). Content area reading: Literacy and learning across the curriculum.

van Uden, J., Ritzen, H., & Pieters, J. (2014). Engaging students: The role of teacher beliefs and interpersonal teacher behavior in fostering student engagement in vocational education. *Teaching & Teacher Education,* 37, 21-32

Vaughn, S., Klingner, J. K., Swanson, E. A., Boardman, A. G., Roberts, G., Mohammed, S. S., & Stillman-Spisak, S. J. (2011). Efficacy of collaborative strategic reading with middle school students. *American Educational Research Journal, 48*(4), 938-964.

Vaughn, S., Swanson, E. A., Roberts, G., Wanzek, J., Stillman-Spisak, S. J., Solis, M., & Simmons, D. (2013). Improving reading comprehension and social studies knowledge in middle school. *Reading Research Quarterly*, *48*(1), 77-93.

Watkins, N. M., & Lindahl, K. M. (2010). Targeting content area literacy instruction to meet the needs of adolescent English language learners. *Middle School Journal (J3), 41*(3), 23-32.

Wei, R.C., Darling-Hammond,L, Andree, A., Richardson, N, Orphanos, S (2009). Professional learning in the learning profession: A status report on teacher development in the United States and Abroad.

Wendt, J. L. (2013). Combating the crisis in adolescent literacy: Exploring literacy in the secondary classroom. *American Secondary Education*, *41*(2).

Wilson, D. (2012). Training the mind's eye: "brain movies" support comprehension and recall. *The Reading Teacher*, *66*(3), 189-194.

Wilson, N. S., Grisham, D. L., & Smetana, L. (2009). Investigating content area teachers understanding of a content literacy framework: a yearlong professional development initiative. *Journal of Adolescent & Adult Literacy, 52*(8), 708-718.

Wilson, S. M., & Berne, J. (1999). Teacher learning and the acquisition of professional knowledge: an examination of research on contemporary professional development. *Review of Research in Education, 24*(1), 173-209.

Yin, R. K. (2014). Case study research: Design and methods. Sage publications.

Yoon, K. S., Duncan, T., Lee, S. W. Y., Scarloss, B., & Shapley, K. (2007). Reviewing the evidence on how teacher professional development affects student achievement (Issues and Answers Report, REL 2007 No. 033). Washington, DC: U.S. Department of Education, Regional Educational Laboratory Southwest.

Zablocki, M., & Krezmien, M. P. (2013). Drop-out predictors among students with high-incidence disabilities: A national longitudinal and transitional Study 2 analysis. *Journal of Disability Policy Studies, 24*(1), 53-64.

Zhang, D., Katsiyannis, A., Ju, S., & Roberts, E. (2014). Minority representation in special education: 5-year trends. *Journal of Child and Family Studies, 23*(1), 118-127.

Zwart, R. C., Wubbels, T., Bergen, T., & Bolhuis, S. (2009). Which characteristics of a reciprocal peer coaching context affect teacher learning as perceived by teachers and their students? *Journal of Teacher Education, 60*(3), 243-257.

APPENDICES

Appendix A- Original Questionnaire

Literacy In The Content Areas Questionaire

NAME		
LIST THE SUBJECTS YOU TEACH		
WHAT IS YOUR AREA OF CERTIFICATION		
NUMBER OF YEARS TEACHING		
NUMBER OF YEARS TEACHING CONTENT AREA		
ARE YOU READING ENDORCED?	YES	NO
DO YOU HAVE A DEGREE IN READING?	YES	NO
DO YOU HAVE ANY ADVANSED DEGREES?	YES	NO
IF SO, LIST ADVANCED DEGREES:		
DO YOU HAVE ANY INCLUSION CLASSES OR DO YOU SERVE STUDENTS WITH DISABILITIES? Please explain:		

In my CONTENT AREA CLASS, students are taught to:	NEVER	SELDOM	OCCASIONALLY	OFTEN	ALWAYS
....summarize what they read	1	2	3	4	5
....determine important ideas	1	2	3	4	5
....generate questions about text	1	2	3	4	5
....define unfamiliar words during reading	1	2	3	4	5
....identify their purpose for reading	1	2	3	4	5
....use text structure to build comprehension	1	2	3	4	5
....monitor comprehension during reading	1	2	3	4	5
....create visual representations to aid recal	1	2	3	4	5
....preview texts before reading	1	2	3	4	5
....activate background knowledge	1	2	3	4	5
....use more than one reading strategy	1	2	3	4	5
....make predictions before reading	1	2	3	4	5
....think aloud while reading	1	2	3	4	5

Rate you CONFIDENCE with using the following strategies WITHIN YOUR DISCIPLINE:	NONE	A LITTLE	MODERATE	MORE THAN MODERATE	EXPERT
Study guides	1	2	3	4	5
Guided reading procedures	1	2	3	4	5
Reciprocol teaching	1	2	3	4	5
Graphic organizers	1	2	3	4	5
Collaborative strategic reading	1	2	3	4	5
K-W-L	1	2	3	4	5
Jig-sawing	1	2	3	4	5
SQ3R	1	2	3	4	5
Cornell notes	1	2	3	4	5
Socratic questioning/seminar	1	2	3	4	5
Directed reading-thinking activity	1	2	3	4	5

Answer the following questions regarding PROFESSIONAL DEVELOPMENT and CONTENT AREA literacy instruction.	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
I feel I can impact the content of the proffesional development sessions I attend In oder to suit my professional development needs	1	2	3	4	5

I feel adequately prepared to help all my students achieve the necessary content literacy demands.	1	2	3	4	5
Professional development I have attended has prepared me to meet the demands of Common Core by effectively praparing me to blend literacy instruction and content area instruction	1	2	3	4	5
I know what the effective components of content area literacy instruction are.	1	2	3	4	5
I have attended professional development sessions which discuss/cover the interaction between cultural responsiveness, motivation, classroom instructonal practices and student success.	1	2	3	4	5
The PD sessions I attend are meaningful for me and my students.	1	2	3	4	5
Based on your experience, answer the following questions regarding current issues in CONTENT AREA literacy instruction.	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
I feel that reading and language arts teachers should be primarily responsible for literacy instruction.	1	2	3	4	5
Students who are more than 2 years below grade level in reading can master the content knowledge in my area.	1	2	3	4	5
Students should come to middle school with the nesesary skills to master conent area texts.	1	2	3	4	5

ADDITIONAL COMMETS OR THOUGHTS ABOUT PROFESSIONAL DEVELOPMENT GEARED TOWARD SUPPORTING LITERACY INSTRUCTION IN THE CONTENT AREAS:

Appendix B- Revised Questionnaire

Literacy In The Content Areas Questionnaire

This questionnaire involves gathering information in regards to your involvement with literacy in the content areas and is divided into 4 sections:

The *first section* will ask you personal information so that your eligibility for this study can be confirmed

The *second section* will focus on your literacy practices in the classroom

The *third section* will address your confidence with specific literacy strategies

The *fourth section* will ask you general questions about literacy and professional development.

SECTION 1

Name:_____

Area(s) of certification: _____

List the subject area(s) you are currently teaching:_____

Numbers of years teaching: _____

Number of years teaching current area: _____

If applicable, list any endorsements/certifications:_____

If applicable, list any advanced degrees:_____

Do you have students with disabilities in your classes? If so, approximately how many per class? _____

SECTION 2

In my CONTENT AREA CLASS, students are taught to:	NEVER	SELDOM	OCCASIONALLY	OFTEN	ALWAYS
....summarize what they read	1	2	3	4	5
....determine important ideas	1	2	3	4	5
....generate questions about text	1	2	3	4	5
....define unfamiliar words during reading	1	2	3	4	5
....identify their purpose for reading	1	2	3	4	5
....use text structure to build comprehension	1	2	3	4	5
....monitor comprehension during reading	1	2	3	4	5
....create visual representations to aid recall	1	2	3	4	5
....preview texts before reading	1	2	3	4	5
....activate background knowledge	1	2	3	4	5
....use more than one reading strategy	1	2	3	4	5
....make predictions before reading	1	2	3	4	5
....think aloud while reading	1	2	3	4	5

SECTION 3

Rate you CONFIDENCE with using the following strategies WITHIN YOUR DISCIPLINE:	NONE	A LITTLE	MODERATE	MORE THAN MODERATE	EXPERT
Study guides	1	2	3	4	5
Guided reading procedures	1	2	3	4	5
Reciprocal teaching	1	2	3	4	5
Graphic organizers	1	2	3	4	5
Collaborative strategic reading	1	2	3	4	5
K-W-L	1	2	3	4	5
Jig-sawing	1	2	3	4	5
SQ3R	1	2	3	4	5
Cornell notes	1	2	3	4	5
Socratic questioning/seminar	1	2	3	4	5
Directed reading-thinking activity	1	2	3	4	5

SECTION 4					
Answer the following questions regarding PROFESSIONAL DEVELOPMENT and CONTENT AREA literacy instruction.	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
I feel I can impact the content of the professional development sessions I attend In order to suit my professional development needs	1	2	3	4	5
I feel adequately prepared to help all my students achieve the necessary content literacy demands.	1	2	3	4	5
Professional development I have attended has prepared me to meet the demands of Common Core by effectively preparing me to blend literacy instruction and content area instruction	1	2	3	4	5
I know what the effective components of content area literacy instruction are.	1	2	3	4	5
I have attended professional development sessions which discuss/cover the interaction between cultural responsiveness, motivation, classroom instructional practices and student success.	1	2	3	4	5
The PD sessions I attend are meaningful for me and my students.	1	2	3	4	5
I feel that reading and language arts teachers should be primarily responsible for literacy instruction.	1	2	3	4	5
Students who are more than 2 years below grade level in reading can master the content knowledge in my area.	1	2	3	4	5
Students should come to middle school with the necessary skills to master content area texts.	1	2	3	4	5
ADDITIONAL COMMETS OR THOUGHTS ABOUT LITERACY AND/OR PROFESSIONAL DEVELOPMENT GEARED TOWARD SUPPORTING LITERACY INSTRUCTION IN THE CONTENT AREAS:					

Appendix C- Original Interview and Focus Group Protocol

| Name: |
| Subject(s) you are currently teaching: |
| Area of certification: |
| Estimated total percentage of students with disabilities/ELL in your classes: |
| Number of years teaching your current subject matter: |

Interview Protocol

1. Are there district PD resources available to you that support you with implementing content area literacy instruction?	
YES	**NO**
Can you describe them? Are they one day, weekly, monthly, do they involve collaboration? How are they supported? Do they help you support struggling adolescents?	Go to question 2

2. What are the most difficult issues you encounter in relation to content area literacy?

3. Have you attended any professional development geared toward content area literacy instruction in your area?	
YES	**NO**
Can you describe them? Are they one day, weekly, monthly, do they involve collaboration? How are they supported? Do they help you support struggling adolescents?	Can you describe what PD which would support you with literacy implementation?
Do you feel it impacted your practice? How?	

4. Can you impact the content of the professional development you can attend? Would you like to? If so How? If not why not?

5. Do you feel the PD you have attended in the last year has adequately prepared you to meet the needs of all your students in light of higher standards?

6. Do you feel supported with meeting the literacy needs of struggling student (including those with disabilities) in your subject area?	
YES	**NO**
Describe the supports and how they impact your instruction.	What type of support structures would help you address their needs?

7. Do you know what effective content area literacy instruction is or what is looks like?	
YES	**NO**
Can you describe it?	**Do you think this is an important topic for you to familiarize yourself with? Why? Why not?**

8. Do you feel the professional development you attend is meaningful, purposeful, and specific for you and your students?	
YES	**NO**

Appendix D- Revised Interview and Focus Group Protocol

Guiding Questions for Focus Groups and Individual Interviews

1. Describe your practice as it relates to content area literacy instruction.

Probing questions:
- Describe the specific strategy and how it addresses literacy in your content.
- How often do you plan for addressing literacy in your content?
- Describe changes (if any) in your practice since we began these PD sessions.
- How often are students exposed to literacy instruction in your classroom?
- Is literacy infused into your daily instructional routines?
- Describe any changes that need to be made to your instructional routine, if any.

2. What are the outcomes you anticipate for struggling students in your classrooms, specifically those with disabilities, as it relates to literacy?

Probing questions:
- Can struggling students with limited literacy skills succeed in your class? Why or why not?
- Describe the structures that support your position. For example, if the outcomes you anticipate are negative, *why*? If the outcomes you anticipate are positive, *why*?
- Do you feel responsible for the outcomes these students will experience?
- How can these outcomes be improved?
- Have the outcomes you anticipate changed since we started our study? How and why?

3. What aspects of the EIE PD are you finding most useful? Not useful?

Probing questions:
- Do you think that the sessions are frequently enough?
- Do you have enough time to plan for the following session?
- Does this experience support you with implementing literacy strategies that will help struggling students? How?
- Are there any components of the EIE sessions that you find can be improved upon?

4. Describe your understanding of literacy in the content areas

Probing questions:
- Can you describe any specific content-based strategies?
- Is there a difference between content area literacy and disciplinary literacy?
- How have you gained this understanding?
- Has you understanding of literacy in the content areas changed during the course of our PD? How so?

Appendix E- Teacher Observation Protocol

Teacher Observation Protocol/Worksheet

Pre-Observation Conference:
The researcher will contact the teacher to set up a date and time for the observation to take place. A pre-observation conference will help the researcher orientate the teacher as to what is happening and for what purpose.

Pre-conference Date: _____

Observation: Observation Date: _____
Literacy activities occurring during the lesson. The researcher will use the following as a guide of what to look for during the lesson.

Tallies of Times Observed

Do the students or the teacher demonstrate evidence of the following during verbal interactions or student work products

….summarize what they read _____

….determine important ideas_____

….generate questions about text _____

….define unfamiliar words during reading _____

….identify their purpose for reading _____

….use text structure to build comprehension _____

….monitor comprehension during reading _____

….create visual representations to aid recall _____

….preview texts before reading _____

….activate background knowledge_____

….use more than one reading strategy _____

….make predictions before reading _____

….think aloud while reading _____

OTHER _____

Artifacts That Are Evidence of Literacy Practices

□ Study guides   □ _____
□ Guided reading procedures   □ _____
□ Reciprocal teaching   □ _____
□ Graphic organizers   □ _____
□ Collaborative strategic reading   □ _____
□ K-W-L   □ _____
□ Jig-sawing   □ _____
□ SQ3R   □ _____
□ Cornell notes   □ _____
□ Socratic questioning/seminar   □ _____
□ Directed reading-thinking activity   □ _____

Debriefing: Although this observation is not to evaluate a teacher's classroom practices, but rather to record her practices, if the teacher elects to debrief as to her observation, the researcher will schedule a debriefing conference.

Appendix F – Original Teacher Reflection Tool

Teacher Reflection Tool

Name:

_____

Date:

_____

Topic of session:

_____

The purpose of this form is for you to reflect on the topics explored during today's PD session, the structure of the activity and relevance it has to your classroom and your students.

Process:

1. **Writing (10 minutes):**
   Each member of the team writes a response to each of the following questions.
2. **Discussion (10 minutes):**
   As a group, we will discuss openly the feedback, clarify any questions and address concerns.
3. **Plan (5-10):**
   As a group and based on the Teacher Reflection Tool, as a group we will decide on a topic to cover in the next session (if applicable).

(A) Describe characteristics of today's professional development session that you found to be most effective. How does this process support your work in the classroom?
(B) Describe areas in the process of today's professional development that can be improved upon.
(C) What topics should future sessions focus on?
(D) Provide any additional comments or suggestions:

Appendix G – Revised Teacher Reflection Tool

Teacher Reflection Tool

The purpose of this form is for you to reflect on the topics explored during today's PD session, the structure of the activity and relevance it has to your classroom and your students. Additionally there are three additional questions about your experience with literacy and this professional development.

PLANNING:

1.   Discussion (10 minutes):

Toward the end of every session we will discuss the session and then plan for the structure and topic of the next session. The following questions will help you prepare for the discussions.

(a) What did you learn as a result of this session?

(b) What supports, if any, do you feel you might need to implement what you learned today?

(c) How will you apply what you learned today?   (If you will not apply what you learned, why?)

(d) Should future sessions build on this topic; If so, how?

(e) Are you satisfied with today's session? Why or why not?

(f) Are there any topics we have not discussed that you would like to explore in future sessions?

(g) Additional comments or suggestions:

EXPERIENCE:

2. After each session we will have a *group discussion*. The following questions will be addressed at each group discussion. Reflect on each question and whether there are changes to your responses as we complete the sessions. THESE DISCUSSIONS WILL BE RECORDED.

1.   Describe the literacy practices you use in your classroom.

2.   What are the outcomes you anticipate for struggling students, including those with disabilities?

3.   What have been the most effective components of this professional development opportunity?

4.   Describe your understanding of literacy practices in your content area for struggling students, including students with disabilities.

Appendix H- Professional Development Session Protocol

Saturday Session (EXPLORATORY Phase)

As part of the EIE framework, this exploratory session will help the group build background so that the participants and researcher establish a common language for, and understanding of, strategies they will be use. This common language is an essential component of social interactions and the constructivist approach upon which this study is grounded. The goal here is not for teachers to develop expert knowledge base on these topics, but rather to lay a foundation for a common language with which the teachers can build upon. The researcher's role is to guide the teachers in the use of quality research articles to build their knowledge base and use that knowledge to build pedagogy unique to their schools, classrooms and students. During the last hour of the initial session, teachers and researcher will discuss the professional development session, openly discuss areas of improvement and collaborate on choosing topics for subsequent sessions based on teacher and student needs.

AGENDA (EXPLORATORY phase) 9 am – 4 pm

Time	Topic	Topic Specifics	Resources
9:00 – 9:30	Introduction to Study		
9:30 - 10:30	Culturally Responsive Teaching		Epstein, Terrie. "Adolescents' Perspectives on Racial Diversity in U.S. History: Case Studies from an Urban Classroom." American Educational Research Journal 37(1) (2000): 185–214.
10:30- 11:30	Engagement and Motivation		
11:30 - 12:00	Introduction to Literacy	Includes both disciplinary literacy and reading strategies	
12:00 - 1:00	Break/Lunch		
1:00- 2:00	Disciplinary Literacy	Think Like A Historian	Reisman, A. (2012). Reading like a historian: A document-based history curriculum intervention in urban high schools. Cognition and Instruction, 30(1), 86-112.
2:00 – 3:00	Reading Strategies	Graphic organizers	Horton, S. V., Lovitt, T. C., & Bergerud, D. (1990). The

			effectiveness of graphic organizers for three classifications of secondary students in content area classes. Journal of Learning Disabilities, 23(1), 12-22.
		Think-Aloud	McKeown, R. G., & Gentilucci, J. L. (2007). Think-aloud strategy: Metacognitive development and monitoring comprehension in the middle school second-language classroom. Journal of Adolescent & Adult Literacy, 51(2), 136-147.
		Close reading	Brown, S., & Kappes, L. (2012). Implementing the Common Core State Standards: A Primer on" Close Reading of Text". Aspen Institute.
		Visualization	Park, J. Y. (2012). A Different Kind of Reading Instruction: Using Visualizing to Bridge Reading Comprehension and Critical Literacy. Journal of Adolescent & Adult Literacy, 55(7), 629-640.
		Text previewing	Nixon, S. B., Saunders, G. L., & Fishback, J. E. (2012). Implementing an Instructional Framework and Content Literacy Strategies Into Middle and High School Science Classes. Literacy Research and Instruction, 51(4), 344-365.
		Vocabulary	Baumann, J. F., & Graves, M. F. (2010). What is academic vocabulary? Journal of Adolescent & Adult Literacy, 54(1), 4-12.
3:00-3:30	PD Reflections/Focus Groups		
3:30-4:00	Choosing focus for next session		After the session, teachers will independently investigate chosen practice and how they interact with that practice in their classrooms, if at all. They will prepare to discuss the identified focus on the weekly session.

Weekly sessions (INVESTIGATIVE phase)

In the investigative phase the teachers will investigate to what extent the research based strategies/practices interact with their established classroom routines and practices in the context of content area/disciplinary literacy. The researcher's role is a supportive role as teachers investigate a specific area. During the first weekly 1-hour session teachers will delve deeper into the specific area they identified they wanted to investigate further. As part of this investigation teachers will share resources they gathered independently or with the help of the researcher if they chose.

Independent sessions (EXPERIMENTAL phase)

During the experimental phase, the teachers will experiment with modifying current practices based on their investigation of their classroom practices and identified focus. Through analysis of gathered data during this phase, which can include feedback from observations, student artifacts they share or results from weekly sessions, the teachers will then choose to continue to explore the current focus or will explore a different focus.

As the teachers cycle back to the investigative phase, teachers may elect to investigate results from their collaborative usage of the identified strategies to continue to refine the use of, or add to, or replace the focus as a group.

VITA

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January 2000- 2010	Teacher, Exceptional Student Education Miami Dade County Public Schools (MDCPS) Miami, Florida
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December 2008	E.S., Leadership Honors Graduate Nova Southeastern University Miami, Florida
February 2010-2012	Reading Coach (Westland Hialeah Senior, Miami Edison Senior) Miami Dade County Public Schools (MDCPS) Miami, Florida
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PROFESSIONAL PRESENTATIONS AND REVIEWING ACTIVITIES
(Presentations are listed below using previous last name)

2011 Presentation Reviewer Proceedings of the Tenth Annual College of
Education & GSN Research Conference
Florida International University
Miami, Florida

Garcia-Rios, L. (2013). *Poetry as a Reading Intervention.* Poster Presentation for U.S.
Office of Special Education Programs (OSEP) Project Directors' Conference,
Washington, D.C., 2013

Garcia-Rios, L. (2013). Using Poetry to Motivate At-Risk Readers. Presentation for
Ideas with IMPACT Catalogue and IDEA Expo 2013. Miami, FL. March, 2013.