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Middle School Teachers' Experiences With Teaching Self-Regulation Skills to Adolescents With Disabilities

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COLLEGE OF EDUCATION

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Jessica Traylor

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2016

Abstract

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Adolescents With Disabilities

by

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EdS, Georgia Southern University, 2005

MEd, Georgia Southern University, 2003

BS, Georgia State University, 2001

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Research shows that adolescents with disabilities often lack self-regulated learning skills. Current research further indicates that explicit teaching of self-regulation skills is beneficial to adolescents with disabilities. The site of this study was a local middle school in rural Georgia that did not assess whether or not teachers were explicitly teaching self-regulation skills to adolescents with disabilities. It was unknown, therefore, whether adolescents with disabilities were learning self-regulation skills in school and whether teachers faced problems in teaching these skills. The study sought to explore this gap in knowledge and practice. Zimmerman's self-regulated learning theory and Bandura's self-efficacy theory served as the conceptual frameworks for this study. The research questions addressed middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. Purposeful sampling was used to select 8 teachers, including general and special education teachers, who were currently teaching students with disabilities to participate in semistructured individual interviews. Additionally, lesson plans were reviewed to determine the use of planning for self-regulation interventions. Data were grouped into categories using coding and thematically analyzed. The findings indicated that teachers had experience teaching some aspects of self-regulation; however, they reported needing more information about the specific needs of their students with disabilities, ways to fit self-regulation skill instruction into the existing curriculum, and strategies to help their students build self-efficacy and motivation. With an increased focus on self-regulation skills, teachers may see an increase in the academic skills and motivation of students with disabilities.

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Dedication

This project study is dedicated to my family. I would not have been able to accomplish this without your patience and support. You provided me with the time and space that I needed to think through this complex issue. It is also dedicated to the hundreds of students I have been able to work with over the years. You helped me understand how important it is to have effective teachers who care about your success in life as much as they care about your grades.

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I would like to thank God first for blessing me with the ability to succeed in school and life without significant academic challenges. I would like to thank my parents for providing a strong foundation and a love of learning. To my husband and children, I would like to thank you for allowing me to spend countless hours in the office reading and writing. I would also like to thank the Walden faculty members who have been extremely helpful along this journey. Dr. Kim and Dr. Adams, your encouragement and guidance provided much-needed clarity and direction.

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Section 1: The Problem

Introduction

Teachers face huge challenges in the classroom setting today. One of these is working with students with a wide range of abilities and backgrounds. Moreover, teachers are required to provide the best education for students with disabilities. Along with these challenges is the requirement for teachers to stay abreast of changes in educational policies and testing requirements implemented in the school. Thus, the aim of the current study was to focus on one area of skills that students with disabilities can benefit from having: self-regulation skills.

Existing research revealed that self-regulation skills can significantly and positively shape high academic achievement and community participation outcomes (Jahromi, Bryce, & Swanson, 2013; Regan & Martin, 2013). *Self-regulation* is a set of skills used to self-direct learning, including self-evaluation, organizing information, setting goals, selecting appropriate learning strategies, maintaining motivation, seeking assistance, and monitoring progress (Zimmerman, 1996). Self-regulation skills, which are beneficial to students with and without disabilities, include planning an activity, beginning a task, maintaining focused attention, controlling impulses, checking for accuracy, and adjusting ineffective strategies (Zimmerman, 2000). These skills are positively correlated with academic achievement, regardless of reading level (Jahromi et al., 2013; Regan & Martin, 2013). When students are better able to self-regulate, they are more likely to have higher achievement scores (Caughy, Mills, Owen, & Hurst, 2013; Gawrilow et al., 2014; Van Beek, de Jong, Minnaert, & Wubbels, 2014). Furthermore, teachers can instruct students in the area of self-regulation skills in order to support their

academic achievement (Caughy et al., 2013; Gawrilow et al., 2014; Van Beek et al., 2014).

Teaching of specific strategies to solve problems is related to higher class participation and academic achievement (Fuhs, Farran, & Nesbitt, 2013; Schmitt, McClelland, Tominey, & Acock, 2015; Ursache, Blair, & Raver, 2012; von Suchodoletz et al., 2013). Moreover, students who have been taught how to approach a problem, think of possible solutions, select an action, and carry out their plan are more likely to participate in class and demonstrate their learning through higher class grades (Fuhs et al., 2013; Schmitt et al., 2015). Although class participation and academic achievement are desired, few teachers engage in actively teaching self-regulation skills (Ursache et al., 2012; von Suchodoletz et al., 2013). Thus, supporting teachers in teaching self-regulation skills is important for academic improvement.

Definition of the Problem

The problem addressed by the current study was the fact that the middle school, in assessing academic achievement, did not assess whether or not teachers were explicitly teaching self-regulation skills to adolescents with disabilities. I selected this problem for the study because research indicated that explicit teaching of self-regulation skills is beneficial to adolescents with disabilities. There are many factors that may contribute to this problem, among which are possible misconceptions of the value of self-regulation skills as well as barriers that may be faced in assessing and teaching self-regulation skills to adolescents with disabilities. This study contributes to the body of knowledge needed to address this problem by focusing on middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities.

It is important to understand the problem from the perspective of teachers. Teachers can play an important role in improving students' use of self-regulation skills (Blackwell, Yeager, Mische-Lawson, Bird, & Cook, 2014; Kelly & Shogren, 2014; Schünemann, Spörer, & Brunstein, 2013; Van Beek et al., 2014). There should be support in schools for teaching of self-regulation skills to students. As such, more information was needed to understand local middle school teachers' experiences with and perceptions of teaching self-regulation skills. Unfortunately, research has shown that many teachers report not having adequate skills to diagnose and intervene to increase student motivation and self-regulation (Blackwell et al., 2014; Kelly & Shogren, 2014; Schünemann et al., 2013; Van Beek et al., 2014). More information in this area may be helpful in developing a plan to help the local middle school begin to assess the teaching of self-regulation skill instruction and ensure that teachers receive the support they need to consistently provide explicit instruction in self-regulation skills.

Rationale

Evidence of the Problem at the Local Level

In the local middle school in this study, there was no evidence that assessments were being carried out regarding whether or not teachers were explicitly teaching self-regulation skills to adolescents with disabilities. Most assessments consisted of academic achievement testing and cognitive testing. Occasionally, adaptive rating scales or behavior rating scales were used in the assessment of students with disabilities. None of these assessment tools, however, can provide insight into a student's ability to self-regulate learning. This problem affects adolescents with disabilities because the research indicates that explicit teaching of self-regulation skills is beneficial to this population.

There are many factors that may contribute to this problem, one of which is misconceptions of the value of self-regulation skills for adolescents with disabilities. Another is the lack of attention paid to potential barriers affecting the assessment and teaching of self-regulation skills.

Moreover, in the local middle school, some of the teachers believed that students with disabilities were underperforming because they were not motivated to learn; therefore, according to several teachers, they did not focus on teaching self-regulation skills to help address the problem. Even if the teachers had been aware of self-regulation strategies and had knowledge of how to teach them, many would likely not have done so. This corresponds to the findings of research indicating that even if teachers provide implicit modeling of self-regulation strategies, they rarely teach them explicitly. This study is important because of the positive impact it could have on the education of adolescents with learning disabilities in the local middle school. This study contributes to the body of knowledge needed to address this problem by focusing on middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with learning disabilities.

Evidence of the Problem From the Professional Literature

The idea that the local middle school did not assess whether or not teachers were explicitly teaching self-regulation skills to adolescents with learning disabilities was problematic. Assessing academic achievement but not students' self-regulation skills can lead to problems for adolescents with disabilities, according to recent literature (Kelly & Shogren, 2014; Regan & Martin, 2013). There was no evidence that the district had assessed whether or not teachers were teaching self-regulation skills to adolescents with

disabilities. This problem impacts adolescents with disabilities because, as research indicates, explicit teaching of self-regulation skills is beneficial to adolescents with disabilities. Previous research (Carter, Lane, Pierson, & Glaeser, 2006; Kelly & Shogren, 2014) showed the benefits of teaching self-regulation skills to students. Not teaching these skills can have a serious impact on adolescents with learning disabilities.

For instance, students with low self-regulation skills have demonstrated lower class and test grades compared to students with higher self-regulation skills, despite no difference in reading level (Bohlmann & Downer, 2016; Gouin, 2013; Shih, Zheng, Yuan, & Ford, 2015). This indicates that the presence of effective self-regulation skills is a mediating factor for student grades. Moreover, it was found that students with disabilities may benefit from developing self-regulation skills (Carter et al., 2006; Kelly & Shogren, 2014). Additionally, students with disabilities have less faith in their ability to learn new information and complete academic tasks, referred to as *low self-efficacy* (Bandura, 1989; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). This low self-efficacy results in less effort toward studying and improving skills in the identified area. The combination of low self-regulation and low academic self-efficacy leads to students who are less likely to have effective study skills and who are less motivated to use study skills. If adolescents with disabilities and low self-efficacy levels are taught self-regulation skills, they can become more motivated to study (Carter et al., 2006; Kelly & Shogren, 2014).

While studies have highlighted the benefits of self-regulation skills for adolescents, including those with disabilities, there are also several studies that have emphasized how difficult it is to teach these skills (Blackwell et al., 2014; Cho,

Wehmeyer, & Kingston, 2011; Mega, Ronconi, & De Beni, 2014). Cho et al. (2011) surveyed teachers across 30 states regarding their perception of the importance of teaching self-determination skills. While the concept of self-determination is not synonymous with self-regulation, it shares several essential features. In their research, Cho et al. described self-determination as including the behaviors of "goal setting, problem solving, and self-regulation" (p. 149). These aspects of self-determination are consistent with the theory of self-regulated learning as set forth by Zimmerman (2000, 2002, 2008). Self-regulated learning includes the ability to set goals, select appropriate learning strategies, maintain motivation, and monitor progress (Zimmerman, 2008). Furthermore, Cho et al. found that although teachers placed a high value on teaching self-determination skills, they reported that they did not often teach these skills.

Given these difficulties, Cho et al. (2011) concluded that teacher training is the means to bridge the gap between research and practice. Focusing on strategies used by teachers, Kistner et al. (2010) observed the teaching of 20 teachers in an effort to understand the amount of time they used explicit versus implicit strategies to teach self-regulation skills. The authors found that most strategy instruction was implicit, with only a minimal amount of explicit strategy instruction (Kistner et al., 2010). Additional data from this research were used to compare the amount of academic gain from implicit strategy instruction versus explicit strategy instruction. The authors determined that explicit instruction in self-regulation skills was related to gains in academic achievement, whereas implicit strategy instruction was not related to these gains (Kistner et al., 2010).

In addition, Mega et al. (2014) found that adolescents' self-regulation skills can depend on the quality of the relationships they have with their teachers. If teachers'

relationships with students are strained, this can have a significant impact on the executive functioning of adolescents, which is a part of self-regulation.

With the local middle school not providing assessment of teaching self-regulation skills, it was important to understand whether teachers were explicitly teaching these skills, and whether they faced the same problems highlighted by the literature. The findings of the current study may contribute to the body of knowledge needed to address this problem by focusing on middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities.

Definitions

Self-efficacy: A person's belief in his or her ability to fulfill the demands of a situation, including the ability to learn new information and the ability to complete tasks accurately (Bandura, 1989).

Self-regulation: Self-regulation is a set of skills used to self-direct learning, including self-evaluation, organizing information, setting goals, selecting appropriate learning strategies, maintaining motivation, seeking assistance, and monitoring progress (Zimmerman, 1996).

Self-regulation skills: A set of skills used to self-direct learning, including self-evaluation, organizing information, setting goals, selecting appropriate learning strategies, maintaining motivation, seeking assistance, and monitoring progress (Zimmerman, 1996).

Significance

Currently, the local middle school assesses academic achievement but does not assess whether or not teachers are teaching self-regulation skills to adolescents with

disabilities. This problem affects adolescents with disabilities because the research indicates that explicit teaching of self-regulation skills is beneficial to this population. This study is therefore significant because it will contribute to the body of knowledge needed to address this problem in the local setting by focusing on middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. Studies show that teachers could explicitly teach self-regulation skills and make a difference in outcomes for students with disabilities (Kiely, Brownell, Lauterbach, & Benedict, 2015; Montgomery, 2013).

The teaching of self-regulation skills, such as problem solving, focusing attention, and modifying unsuccessful strategies, can support higher academic achievement as well as better community outcomes (Kiely et al., 2015; Montgomery, 2013). In order to understand the teaching of self-regulation skills in the local middle school, it was important to explore what experiences teachers had in teaching self-regulation skills and how they perceived the teaching of these skills. It was anticipated that this exploration might indicate that the local middle school needs to assess the explicit teaching of self-regulation skills to adolescents with disabilities and possibly provide teachers with additional support.

Guiding/Research Questions

Past research has indicated that self-regulation skills are a significant contributor to high academic achievement and community participation outcomes (Fuhs et al., 2013; Kelly & Shogren, 2014). Students with disabilities have been found to lack self-regulation skills, have lower academic achievement, and show poor community participation (Kelly & Shogren, 2014; Regan & Martin, 2013). Research has indicated

that teachers typically choose motivational techniques to improve student performance (Hofferber & Wilde, 2014; Urhahne, 2015).

In the local middle school, there was no assessment of the teaching of self-regulation skills to students with learning disabilities. With current research supporting the use of self-regulation instruction for improving achievement and teachers infrequently using these techniques, there was a gap between research and practice (Fuhs et al., 2013; Kelly & Shogren, 2014). More information was needed regarding middle school teachers' experiences with and perceptions of teaching self-regulation skills to students with disabilities in order to understand whether or not these skills were being taught and what additional supports teachers might need.

Using a case study methodology, this study explored the following overarching question: What are middle school teachers' experiences with and perceptions of teaching self-regulation skills to students with disabilities? To explore this research question, the following topical subquestions, as they related to the local setting, guided the study:

1. What experiences have middle school teachers had with teaching self-regulation skills to adolescents with disabilities?

2. How do middle school teachers perceive self-regulation skills for adolescents with disabilities?

3. What assistance, if any, do middle school teachers believe they need to support the teaching of self-regulation skills to adolescents with disabilities?

Review of the Literature

The literature review that follows is divided into two sections. In the first section, I review the conceptual framework that was the foundation of this study on middle school

teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. This first section includes the development of theories of self-regulated learning and self-efficacy. In the second section, I review current research related to children with disabilities and their struggles, longitudinal outcomes for students with disabilities, teacher perceptions of student learning, the role of special education, self-regulated learning as an aspect of self-determination, and the impact of self-regulated learning on academic achievement and motivation. An analysis of the foundational theories and current research will aid in the understanding of the importance of self-regulation and self-efficacy in the educational and adult outcomes of students with disabilities.

Conceptual Framework

Zimmerman's model of self-regulated learning. The framework supporting this study was Zimmerman's (1986) model of self-regulated learning. Over the past three decades, researchers have increasingly focused efforts toward understanding the role of self-regulation in the learning process. In the current study, I sought to examine the same, particularly middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities.

History. During the infancy of inquiry into self-regulated learning, researchers such as Schunk and Levine focused on the individual teaching and use of strategies. The technique of teaching students to use strategies was effective in demonstrating increased learning during experimental settings, but students did not generalize the use of these new learning strategies to daily learning settings (Zimmerman, 2008). Based on the gap

between experimental behavior and general practice, Zimmerman (1986, 1989) proposed that there were other factors to consider.

In his research, Zimmerman (1986) concluded that students needed to be involved in their own learning by proactively using metacognitive, motivational, and behavioral strategies. This represented an opportunity for the research community to define self-regulated learning by clarifying the three aspects of metacognition, motivation, and behavior. *Metacognition* was determined to include aspects of certain cognitive skills, such as concentration and processing information. *Motivation* was linked with attitude and emotional regulation. The definition of *behavioral self-regulation* included specific time management strategies and test-taking strategies. This classification allowed for the development of measurement tools and specific research in each of these areas of self-regulation (Zimmerman, 1986).

Zimmerman (2000) proposed that a cyclical stage model of self-regulated learning mediates the actual use of self-regulated learning strategies. Zimmerman's three-stage model of self-regulated learning described pre, ongoing, and post phases of learning. These three stages are the forethought phase, performance phase, and self-reflection phase, respectively. These phases are important in understanding how teachers can intervene to support students with disabilities in various academic processes. Additionally, Zimmerman (2002) documented the importance of perceived efficacy as a motivational component of self-regulated learning, with self-efficacy positively impacting the amount of effort learners put into using self-regulation strategies.

Forethought phase. During the forethought phase of learning, students are engaged in planning their approach to the learning task, gathering resources, and setting

goals. Zimmerman (2002) reported that there is "considerable evidence of increased academic success by learners who set specific proximal goals for themselves" (p. 68). *Specific proximal goals* describe the distinct activities that a learner intends to engage in while preparing for an upcoming learning activity, such as setting aside a certain amount of time each day for studying or memorizing a certain number of math facts each week. In contrast, *general distal goals* set forth a desired outcome, such as passing a test or completing a long-term project.

Another aspect of the forethought phase is self-motivation, which is related to self-efficacy, or belief in the ability to complete the task (Zimmerman, 2002). Students who have more belief in their ability to learn a skill or complete a task are more motivated to use self-regulated learning skills to work toward their goals (Bandura, 1997). The concept of self-efficacy has been researched using microanalytic techniques to determine a student's perceived ability to complete a task (Zimmerman, 2008). Higher reported self-efficacy for writing tasks has been linked to greater frequency of using self-regulated learning strategies during writing, as well as to higher course grades (Zimmerman & Bandura, 1994). These microanalytic techniques of measuring self-efficacy have also been used to track changes in self-efficacy over time, as well as the accuracy of students' self-assessments of their abilities (Zimmerman, 2008). The inclusion of self-efficacy in the forethought phase of the self-regulated learning model highlights the importance of belief in oneself and one's ability to complete the tasks ahead.

Students with disabilities often have difficulty in deciding how to approach a task, setting goals, and monitoring their use of strategies (Mitchiner, McCart, Kozleski,

Sweeney, & Sailor, 2014. Additionally, they have typically experienced a history of academic difficulty and/or failure. Understanding how difficulty with goal-setting and self-efficacy beliefs impact the use of self-regulation strategies appears to be an important concept for those who seek to educate students with disabilities. These students may need teacher intervention to understand the process involved in finding the material they need and beginning a new task. They will likely also need support in accurately understanding their own skill level and increasing their self-efficacy through realistic successes (Mitchiner et al., 2014).

Performance phase. The performance phase of a task involves self-control and self-observation. Zimmerman (2002) further defined the self-control part of this phase as including determining the specific strategies needed for learning and focusing attention. The strategy of using imagery can assist students in visualizing themselves using the strategies they selected in the forethought phase. Self-instruction can be helpful in assisting students in talking themselves through the specific goals or steps they outlined toward achieving the goal they set in the forethought phase. Using self-observation, students can reflect on how they are progressing toward their specific proximal goals and adjust their selected strategies if they determine that they are not progressing as expected. Students with disabilities may need teachers to help them learn how to select and modify self-regulated learning strategies.

Another important aspect of the performance phase is focusing attention. This includes identifying and modifying the environmental factors that may serve as distracters (Zimmerman, 2002). Students with disabilities may need teachers to help them identify environmental stimuli that distract their attention from the task at hand. This

could include the use of a self-monitoring tool, such as a progress tracking chart or a structured schedule for personal accountability. Teachers may also need to spend time teaching students how to identify and control their impulses so that they can engage in sustained attention.

Self-reflection phase. During the self-reflection phase of a task, students are engaged in the processes of self-judgment and self-reaction (Zimmerman, 2008). One important part of the self-reflection phase is self-judgment, including thoughts about one's performance and the reasons for that performance (Zimmerman, 2002). In contrast to teachers' tendency to link student performance to innate ability, Baird et al. (2009) discovered that students generally believe that their performance is based on their effort. Zimmerman and Kitsantas (1997) found that when students engage in self-regulated learning strategies, they are more likely to attribute their outcomes to their use of specific strategies during the performance phase, thus increasing the likelihood of using self-regulated learning strategies in the future. This causal attribution can be a powerful factor in students' personal perception of the reasons for their success. This link to the self-reflection phase serves as more reason for teachers to focus on assisting students in linking their efforts to their outcomes.

The self-reaction aspect of the self-reflection phase involves the process of being either satisfied or dissatisfied with one's performance (Zimmerman, 2002). When students feel satisfied with their performance, they are more likely to experience an increase in their motivation and self-efficacy (Schunk, 2012; Zimmerman & Kitsantas, 1999). These motivational and self-efficacy increases lead directly back into the forethought phase of the self-regulated learning cycle. According to Zimmerman (2002),

self-reactions lead to either adaptive or defensive responses. These responses either support or hinder future learning behaviors. At this stage of the learning process, teachers may need to intervene with strategies to help students learn how to monitor their own accuracy and shift their problem-solving strategy if needed. Additionally, teachers may need to help students understand the reasons for their difficulties with certain aspects of a learning activity.

Bandura's self-efficacy theory. Another theory used for this study was Bandura's self-efficacy theory. This theory is helpful in understanding whether, through their teachers' actions and perceptions, children with disabilities are motivated to learn and use self-regulation skills. Bandura's self-efficacy theory is useful in understanding the underlying reasons that students are motivated to use self-regulated learning strategies or not (Baird et al., 2009). Students' view of their ability to successfully complete a task or learn a new skill is a strong predictor of how they can effectively learn self-regulation skills from their teachers. Moreover, children with disabilities tend to have low self-efficacy levels, which may act as a barrier against learning self-regulation skills.

Overview of self-efficacy. Since the 1970s, the study of self-efficacy has extended to various areas of life, from treating phobias to completing college courses. Self-efficacy refers to individuals' beliefs about the amount of control they have to impact what happens in their lives, thus impacting their choice of activities and motivation (Bandura, 1997). People with higher self-efficacy tend to set higher goals, remain committed to their goals, plan their actions, demonstrate resilience, and experience lower levels of anxiety and depression (Bandura, 1997).

Bandura (1997) has conducted extensive research on the four main ways to increase self-efficacy: mastery experiences, vicarious experiences, social persuasion, and accurate interpretation of emotional states. The majority of Bandura's early work focused on snake phobias (Bandura, 1989). Phobia treatment through guided mastery or progressive desensitization is based on the concept of self-efficacy developed by Bandura (1997).

Self-efficacy for learning. Schunk (1996) further researched Bandura's theory in the realm of learning. _Self-efficacy for learning_ is typically used to refer to beliefs about the ability to learn new information and demonstrate learning through performance. According to Schunk, there is a difference between Bandura's work with snake phobias and the concept of self-efficacy for learning. The concept of self-efficacy when treating phobias is most impacted by the consideration of factors such as anxiety and negative outcome expectations (Schunk, 1996). In contrast, self-efficacy for learning involves the need to learn new information rather than the ability to perform previously learned skills in the face of anxiety.

Bandura's self-efficacy theory is useful in understanding the underlying reasons that students are motivated to use self-regulated learning strategies or not (Baird et al., 2009). Students' view of their ability to successfully complete a task or learn a new skill is a strong predictor of how they will receive instruction in self-regulation skills. According to the findings of Baird et al. (2009), students with learning disabilities tend to exhibit lower levels of self-efficacy. Such students may perceive that they need to exert more effort to achieve tasks that their peers can achieve rather easily (Baird et al., 2009). They also have lower levels of ability and lower levels of trust that they can carry out

similar tasks in the future. Thus, I expected that teachers would be likely to indicate that one of their perceptions related to teaching students with disabilities self-regulation skills was their lower self-efficacy levels. Furthermore, teachers have claimed that students are less likely to be motivated to put forth the effort necessary to learn and employ self-regulated learning skills in the classroom. In understanding this discrepancy between the actual performance of students with disabilities and the necessary conditions for improved academic achievement, teachers can better support their students. Teachers of students with disabilities may need to assist them in correctly understanding their own abilities and the link between effort and positive outcomes (Baird et al., 2009).

Primary ways to increase self-efficacy. According to Bandura (1997), the four main methods to achieve higher levels of self-efficacy are mastery experiences, vicarious experiences, social persuasion, and accurate interpretation of emotional states. To increase self-efficacy levels, students must be exposed to tasks that are challenging. The successes need to be felt as real successes, rather than as something contrived by the teacher to make them feel good about themselves (Schunk, 1996). Typically, students are able to determine when they have been truly successful with an appropriately challenging task. Students need to see their peers succeed with similar activities. For students with disabilities, this vicarious experience of success can happen in the general education classroom as well as the special education resource room. The important aspect of vicarious experience is that the student believes that the other student is completing a compatible assignment with a similar amount of assistance (Schunk, 1996). Students also need to be told that they can succeed, given the appropriate balance of challenge and support (Bandura, 1997). Lastly, students need to learn how to interpret their

physiological sensations of discomfort or anxiety, as people tend to believe that their feelings indicate their level of capability (Schunk, 1996). Students with disabilities may believe that the anxiety they feel when approaching a difficult task means that they cannot complete the activity, when in reality it may be a reflection of their past difficulties, possibly prior to receiving special education support.

Literature Review

     Self-efficacy as an aspect of self-regulated learning. Several researchers have studied the importance of self-efficacy for self-regulated learning and have determined that high self-efficacy is a vital component of academic success (Bandura et al., 1996; Klassen, 2010; Zimmerman, 2002). According to Zimmerman (2002), self-efficacy is an important factor in the self-regulated learning cycle. With greater self-efficacy, students are more likely to use self-regulated learning strategies to achieve their academic goals. Within the school setting, teachers have a valuable opportunity to help students develop self-efficacy, which can impact many areas of functioning, including academic performance. Self-efficacy has been studied extensively in the realm of education, as well as other areas of daily functioning.

     Bandura et al. (1996) reported that "children who believe they can exercise some control over their own learning and mastery of coursework achieve success in their academic pursuits" (p. 1217). They also indicated that high self-efficacy is related to increased motivation and use of learning strategies (Bandura et al., 1996). Teachers can work with students to help increase their self-efficacy by providing peer role models who succeed in similar academic tasks, offering realistic positive feedback regarding their

potential for success, and ensuring that they experience a level of success in completing challenging tasks (Bandura, 1997).

A more recent study showed that effort is related to an accurate understanding of current skills. Students with disabilities tend to overestimate their skills and put forth less effort (Zimmerman, Moylan, Hudesman, White, & Flugman, 2011). In an experimental design, Zimmerman et al. (2011) assigned students to one of two groups. The experimental group received self-regulated learning training regarding how to self-reflect on their assignment grades and adjust their learning strategies based on their performance, while the control group did not receive this instruction. The results showed that students in the experimental group demonstrated gains in achievement scores on both class assessments and a national assessment (Zimmerman et al., 2011).

If current research is correct, teachers' perceptions of students' lack of innate ability, combined with students' tendency to overestimate their skills, put students with disabilities in a difficult situation. Teacher perceptions of lower levels of ability lead them to provide accommodations to work around a student's disability, rather than providing interventions to support a student's effort to demonstrate gains in academic achievement. This doctoral project study may provide insight into teachers' understanding of the importance of teaching self-regulation skills to students with disabilities.

Children with disabilities and their developmental struggles. Many children with disabilities have problems with speech and language (Akbar, Loomis, & Paul, 2013; Oluka & Eke, 2015). Results of research studies have concluded and agreed that more than half of the children with disabilities do not respond with independent thought, but

instead mimic what they have seen others do. All children do this initially, because it is expected of them from the adults who are modeling for them, but eventually the non-affected child understands why it is a proper response and begins to give it in the proper places for the socially accepted and correct reasons (Akbar et al., 2013). Some adolescents with disabilities may never grasp or understand why this is needed; the most they can do is be taught to mimic responses that have been modelled for them many times more than needed for the non-affected child (Oluka & Eke, 2015). Some adolescents with disabilities need to perform ritualistic motor behaviors. They need a sense of sameness from the way the day is planned, to what they wear, to what their body does each day (Armstrong, Redman-Bentley, & Wardnell, 2013; Mulligan & White, 2012). Some adolescents with disabilities may also display the symptom of repeating of a body motion many times a day (Armstrong et al., 2013; Mulligan & White, 2012). Some adolescents may also exhibit odd behaviors when they feel stressed or overwhelmed (Armstrong et al., 2013; Barton, Reichow, Schnitz, Smith, & Sherlock, 2015).

Early education of children with disabilities can lead to correct social responses and group interactions. Many adolescents with disabilities are able to mimic interactions, even if they do not understand why the response they are giving is the proper and correct response. Over the years, a method of teaching students with disabilities, through modeling the desired behavior, has emerged (Hendrie et al., 2012).

Longitudinal outcomes for students with disabilities. Students with disabilities have been reported to have more difficulty achieving positive post-high school outcomes than their non-disabled peers (Cobb, Lipscomb, Wolgemuth, & Schulte, 2013; Riesen, Schultz, Morgan, & Kupferman, 2014). These findings are consistent with research

conducted using The National Longitudinal Transition Study-2 (NLTS-2). The NLTS-2 incorporated interviews with young adults with disabilities, age 21 to 25 years, who were out of high school (Newman et al. & National Center for Special Education, 2011). The data collected from these interviews were analyzed in comparison to data from non-disabled young adults who had been out of high school for a similar amount of time. Based on this study, young adults with disabilities were less likely to have begun college or completed a post-secondary education program (Newman et al., & National Center for Special Education, 2011). This indicates that students with disabilities are at a distinct disadvantage when considering their post-secondary educational options. Furthermore, it was found that less young adults with disabilities are prepared to manage adult life than their non-disabled peers (Newman et al., & National Center for Special Education, 2011).

The transition from school to work has revealed several barriers to the employment of young adults with disabilities (Cobb et al., 2013; Riesen et al., 2014). In their study about barriers to employment, Riesen et al. (2014) interviewed special educators and vocational rehabilitation counselors. The results revealed several areas that could be important when considering methods for increasing the opportunity for positive outcomes for students with disabilities. Of 84 barriers considered, Riesen et al. narrowed their focus down to twelve domains, and then ranked the barriers from highest to lowest impact. The highest rated barrier was the lack of employment skills, including "work completion, task accuracy, punctuality, social skills, and self-regulation" (Riesen et al., 2014, p. 39). Similarly, Cobb et al. (2013) found that self-regulation skills are important because they may increase successful adult outcomes for students with disabilities.

Role of teachers in the achievement of adolescents with disabilities. The purpose of the current study is to understand middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. Their experiences and perceptions are important because studies have highlighted teachers' instrumentality in the achievement of students with disabilities, within and outside the classroom. Several studies posited that teachers are highly involved when students are involved in special education testing. It was also found that through the teachers' involvement, they can provide details to the committee that is making the referrals (Cameron & Cook, 2013; Feng & Sass, 2013; Karal, 2014; Whalon & Hanline, 2013). Since teachers may also be required to complete a rating scale, they can be the source of providing valuable authentic information about the child, such as the expected conduct, performance, and behavior in the classroom (Cameron & Cook, 2013). Moreover, it was found that teachers leave a lasting impact on the lives of every student, with or without disabilities (Feng & Sass, 2013).

Alternatively, there are a number of situations in which children with disabilities are enrolled in a general education classroom (Karal, 2014). While most of the time, general education teachers are comfortable with students with disabilities in their classes, there are circumstances where general education teachers feel discomfort regarding students with disabilities who are enrolled in their classes. These feelings may result in an undesirable attitude and in unfavorable behavior demonstrated by the teachers (Karal, 2014). For instance, when children with disabilities are enrolled in general education classrooms, there are some preconceived notions. The reputations of children with disabilities are often based upon past experiences between the children, their parents, and

the school faculty (Karal, 2014). If the reputation is positive, then the inclusion process will likely progress in a smooth manner. In contrast, if the reputation is bad, then the inclusion process may be met with resistance and discomfort (Karal, 2014). Similar feelings have been observed when teachers are unsure or doubtful of the skills they possess (MacFarlane & Woolfson, 2013).

Doubts may affect the self-confidence and the self-esteem of teachers who have been performing their tasks efficiently (MacFarlane & Woolfson, 2013). However, if students with disabilities can be supported, general education teachers who are educating students with disabilities can also be supported by proper training. Studies have put forward a number of effective ways in which general education teachers can be trained. One way is through the use of computers and videoconferencing to aid the training process (Gibson, Pennington, Stenhoff, & Hopper, 2010). Intensive summer training has also proved beneficial. Training programs specific to disabilities have been recommended, especially for those individuals applying to schools so that they start their teaching career by already being well-equipped (Scheuermann, Webber, Boutot, & Goodwin, 2003). This has been seen in many states such as California where the legislation has incorporated the requirement of teachers working with students with disabilities to have a specialized training (Scheuermann et al., 2003).

Previous researchers noted that teachers' firm convictions and perceptions of the reasons behind their students' struggles to learn play an important role in how they instruct their students (Hofferber & Wilde, 2014; Urhahne, 2015). If teachers identify motivation as the primary problem in adolescent academic performance, they are more likely to provide motivation-based interventions, such as rewards or punishments, rather

than teaching self-regulation skills (Hofferber & Wilde, 2014; Urhahne, 2015). Researchers have found that teachers use random motivation techniques without truly determining the motivational problem. Montroy, Bowles, Skibbe, and Foster (2014) showed the lower levels of achievement might be attributable to lower self-regulation skills. Students who have been taught a standard method for approaching a problem, determining a plan, completing the task, and checking for accuracy—which are indications of a higher level of self-regulation skills—have demonstrated more active class participation (Montroy et al., 2014). Focusing on motivational factors without considering the lack of self-regulation skills among students with disabilities is problematic (Montroy et al., 2014).

Although training teachers is an important step, so that the teachers are aware of their duties and their roles towards the children with disabilities, it is a challenge for the school. Moreover, despite the fact that teacher training programs would ultimately benefit the development of students with disabilities, extensive research is required to state the most significant areas to be taught and the teacher training strategies (Scheuermann et al, 2003). Thus, there are several expectations from the general education teachers in teaching students with disabilities. Teachers are expected to work in collaboration with the pre-referral teams to execute the interventions in the general education classroom (Obiakor et al., 2012; Hamman, Lechtenberger, Griffin-Shirley, & Zhou, 2013). They are also expected to complete the teacher report, the behavioral rating scales, and other documents in a timely manner (Obiakor et al., 2012; Hamman et al., 2013). It is the duty of the general education teacher to provide sensory, physical, and emotional support to the students with disabilities.

Teachers are also instrumental in their students' achievement through the emotional support they give to the adolescents with disabilities (Obiakor et al., 2012; Hamman et al., 2013). Emotional support can be given in the form of expressing trust and confidence in the abilities of their students, rewarding and acknowledging their efforts, and by showing interest in their lives and routine activities (Obiakor et al., 2012; Hamman et al., 2013). The general education teacher can also provide sensory support to students with disabilities by removing environmental distractions, slowing down the background music, providing headphones, giving them a different seat, assisting them in the relaxation process, and providing assistance in a number of other dimensions (Obiakor et al., 2012; Hamman et al., 2013).

In order to aid the learning process of students with disabilities, the general education teacher can make use of the personalized instruction format where the teaching style would be personalized for students with disabilities in accordance with their interests, objectives, and learning style (Sullivan, 2015). Personalized instruction can be done in various different forms. Some of the ways to personalize instruction include asking different questions to different students with disabilities, clearly defining the vocabulary, breaking big tasks down into smaller pieces, using one-on-one instruction for specific skills, and using visual cues (Sullivan, 2015).

Since the general education teacher is responsible for a number of tasks associated with educating children with disabilities, evaluating their performance and progress, along with grading the plan, is a key task of their job. In this regard, there are several ways that assessments can evaluate the learning of the student. Some of these include

structured observations, parent surveys, portfolio review, peer evaluation, and the use of progress reports (Sullivan, 2015).

Similar to the evaluation plan, teachers are also responsible for designing the grading plan of each child with a disability (Hughes et al., 2013). He/she can do this in a number of ways, such as by assigning points to each academic task, converting effort and behavior into grades, marking the improvement over a time period, and including the performance of the student with disabilities on IEP as the part of the course grade. These strategies are not fixed for a particular course or for a specific child with disabilities. Instead, these are examples for a general education teacher who is responsible for evaluating and grading the child in his/her general education classroom (Hughes et al., 2013).

Children with disabilities usually adopt a challenging behavior, lack social interaction, and struggle with communication. For this reason, the general education teacher must be well aware about the learning needs of the child with disabilities that would eventually help the teacher in adopting such a teaching strategy that the condition of the child improves. In order to this, the teacher must make use of a number of approaches. One such approach is the Functional Behavioral Assessment, whereby which the reason behind the challenging behavior is investigated. The teachers can make note of the environmental changes which occur before the challenging behavior takes place. They must also note down the consequences which follow the behavior. This would automatically help the teacher to get to know the behavior outcome contingencies, on the basis of which an intervention plan could be designed. Furthermore, in order to deal with the potential communicative shortcomings of adolescents with disabilities, general

education teachers can provide students with more opportunities to communicate and encourage them in the process. For instance, teachers can motivate children to speak up and request something they want. Another method of aiding the communication trouble faced by adolescents with disabilities is by providing them with choices. This would encourage students to speak up and be independent in making decisions and choices. Students must also be encouraged to take initiatives in tasks, learn to organize and manage things and understand life activities through role playing. These strategies would help develop social skills. Children with disabilities are enrolled in either special education classes or in a general education classroom. Regardless of the place where they are accommodated, they have a dire need to be educated in order to deal with their weaknesses and to improve the quality of their life.

This is made possible via a number of federal and state laws, along with the efforts put in by teachers and parents of adolescents with disabilities. Although the main tasks of teachers remain same in whichever educational setting they teach, there is a difference between special education teachers and general education teachers (Gable et al., 2012). In a special education environment, the teacher is supposed to educate only children with disabilities. On the other hand, in the general classroom environment, the teacher has to address the needs of the regular students without disabilities and is also required to cater to the needs of the children with disabilities (Gable et al., 2012). General education teachers might at first fear the change in the students they would be teaching, but would gradually overcome the discomfort through the help of training and other assistance programs. General education teachers influence the lives of students with and

without disabilities. For this reason, they must perform the expected role and the assigned duties and responsibilities (Gable et al, 2012).

This section highlighted that when it comes to the education of adolescents with disabilities, the expected roles and responsibilities of general education teachers greatly increases (Jones, Youngs & Frank, 2013). Although many previous studies have addressed the ways of training teachers so that they successfully educate students with disabilities, research has also highlighted the fears of these teachers and the difficulties with managing time, completing the content of the lecture, and improving the learning of students with disabilities (Jones et al., 2013).

Teacher perceptions of self-regulation. Research indicates that teachers generally believe student performance is based on students' innate abilities, while non-disabled students believe their performance is based on effort (Baird et al., 2009). Baird et al. conducted a study of students with learning disabilities and students without learning disabilities in order to compare their perceptions of several self-regulated learning components. They found that students with learning disabilities were more likely to believe that intelligence is fixed and that putting forth extra effort meant that they were not as capable as their non-disabled peers (Baird et al., 2009).

If teachers or students believe that performance is based on innate ability and that innate ability is a fixed attribute, then logically, there is little reason to attempt to improve performance with additional effort. This shapes teachers' perceptions of the value of teaching self-regulation skills. If, as Baird et al. (2009) asserted, teachers believe students perform at the level they do because of their ability, then teachers will choose instructional strategies or interventions based on their students' perceived level of ability.

A student is more likely to choose to exert more effort to perform a task that they believe they can do well. This highlights the importance of the perceptions of teachers on whether or not they teach self-regulation skills.

Teachers do not integrate self-regulation strategies in their classrooms frequently; however, explicit teaching is effective in increasing student use of self-regulation skills (Kistner et al., 2010). Kistner et al. (2010) conducted systematic classroom observations, specifically looking for examples of implicit and explicit self-regulated learning instruction. During these observations, they used the Assessing How Teachers Enhance Self-Regulated Learning (ATES) structured observation protocol (Dignath & Buttner, 2008). They found that teachers often organize the classroom or learning tasks to help students practice self-regulation, but they rarely spend time explicitly teaching self-regulated learning skills. Teachers were observed to model strategies, provide cooperative learning activities, link new learning to prior learning, and offer students choices.

While these implicit teaching practices are desirable, the less-utilized explicit teaching of strategies is correlated with increases in student achievement (Kistner et al., 2010, p. 167). Kistner et al. (2010) recommended that teacher education programs should include a focus on methods of explicitly teaching self-regulated learning skills. This study will further explore the actual use of implicit and explicit self-regulated learning strategies in order to understand more about the actual use of these strategies and the supports that teachers may need to increase the use of self-regulation skill instruction in the classroom. In addition, Vandevelde et al. (2012) asserted that self-regulated learning is an important education goal because of its benefits. Vandevelde et al. looked at

teachers' activities in stimulating self-regulated learning and determined what factors affected this. Results showed that there is limited exposure to these skills in classrooms. Moreover, teacher-related determinants were significant. Teachers who had developmental educational beliefs and saw the importance of self-regulated learning stimulated this more frequently in their classrooms. Teachers who were handling higher grades and smaller classes also used self-regulated learning more. Teachers who perceived they were under a lot of time and work pressure were less willing to integrate self-regulated learning. Teachers being willing to incorporate self-regulated learning strategies is one important aspect that needs to be considered when assessing whether or not teachers are teaching self-regulation strategies (Vandevelde et al., 2012).

Role of special education. Once they are eligible for special education under the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), students with disabilities are provided with an individual education program (IEP) in order to address their specific needs. The IEP includes several components that are designed to provide meaningful access to and benefit from the educational curriculum. Some of these components include goals, accommodations, services, and transition planning (IDEIA, 2004). Along with specialized instruction, students with disabilities should be involved in learning self-determination skills, including self-regulation, as part of the transition planning process (Field & Hoffman, 2002).

Field and Hoffman (2002) conducted an analysis of the literature on self-determination and services for people with disabilities in order to provide guidelines to help schools promote self-determination. Based on their study, Field and Hoffman found that self-determination skills should be explicitly taught, students should be involved in

setting goals, and self-determination should be modelled throughout the school. These results are consistent with the studies by Kistner et al. (2010) and Reisen et al. (2014), which indicated that the explicit teaching of self-regulation skills is an important factor in positive outcomes for students with disabilities.

Students with disabilities can be educated in a variety of settings within the school. One option is for them to receive part of their instruction in a separate class from their non-disabled peers. This placement is often referred to as a resource special education class. One observational study indicated that specialized teaching is not as prevalent in special education classes as is reported (Causton-Theoharis, Theoharis, Orsati, & Cosier, 2011). These researchers spent several hours observing special education classrooms and found that most instruction was delivered by paraprofessionals through the use of worksheets and lessons disconnected from any relevant content. Although researchers have focused on observations of various aspects of teaching, there is still limited research that includes independent observations of instruction specifically related to self-regulation skills.

Another placement option for students with disabilities is to receive all or most of their education in the general education setting, with special education support. That support can be in the form of having a special education teacher or special education paraprofessional available to support them in their general education classes. Students with disabilities who receive their academic instruction in the general education classroom are more likely to perform well on state tests (Causton-Theoharis et al., 2011). Additionally, IDEIA (2004) mandates that students be educated with their non-disabled peers to the greatest extent possible.

While the goal of special education is to educate students with disabilities alongside their non-disabled peers, teaching self-regulation skills appears to be an important component in both general and special education settings. According to Cho et al. (2013), "students with disabilities gain increased access to the general education curriculum when they are taught self-regulation strategies" (p. 770). Once the teaching of self-regulation skills is assessed, consistently teaching self-regulation skills to students with disabilities may provide them with greater success in the general education classroom and curriculum.

Importance of self-regulation skills. Educators or teachers normally assume that study skills or self-regulated learner skills are already inherent to their students and therefore not important to integrate in their classroom instruction. Most believe that these skills are student-intact or were taught when the children were younger. As such, most believe that formal instruction of these skills is not necessary anymore and would therefore not provide them, no matter their cited benefits (Harvey & Chickie-Wolfe, 2008). Unfortunately, literature has revealed that if these skills are sorely lacking among the students, several common teacher referral concerns may become likely to emerge. In particular, teachers may observe that their students have poor academic achievement, are disorganized, do not complete their assignments, are usually unprepared, do not take notes properly, and have low test scores (Gettinger & Ball, 2006). Conversely, literature spanning decades showed that children taught explicitly of these self-regulation skills were better academically. When students are provided with explicit instruction on certain self-regulated learner strategies as opposed to just being taught subject

content, substantial gains can be observed, especially if these skills are constantly being practiced and monitored in the classroom (Zimmerman & Martinez-Pons, 1986).

With these benefits, it has become important to include self-regulated learning strategies in the core curriculum. Moreover, self-regulated learning can be considered one of the most cost-effective approaches within a school setting in order to improve student achievement (Schneid, 1993). Another benefit linked with teaching self-regulated learning skills is that educators would not only equip students with better tools to do well academically, they would also equip students with skills for lifelong learning and success well into adulthood (Hoover & Patton, 2007).

Self-regulated learning as an aspect of self-determination. Self-determination has been widely studied in the field of education. For the purposes of this project study, the definition proposed by Wehmeyer (2005) will be used. According to Wehmeyer, self-determination is defined as "volitional actions that enable one to act as the primary causal agent in one's life and to maintain or improve one's quality of life" (p. 117). This definition of self-determination includes four primary aspects: autonomy, self-regulation, psychological empowerment, and self-realization (Cho et al., 2013). As an aspect of self-determination, self-regulation is an important factor in the development of skills that lead to positive academic and adult outcomes for students with disabilities. Teaching students with disabilities self-regulation skills will help them develop abilities of self-determination in their education.

Students with disabilities need both instruction in self-determination skill development and opportunities to practice those skills (Carter et al., 2006; Kelly & Shogren, 2014). Carter et al. (2006) conducted a correlational study in which they

compared student, teacher, and parent assessments of students with learning disabilities' capacity for self-determination and opportunities to practice self-determination. They used the AIR Self-Determination Scale (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994), which included questions about each student's ability to set goals, make choices, and follow through with their decisions (Carter et al., 2006). In this study, the researchers discovered that students believe they are more capable of self-determined action than their teachers recognize (Carter et al., 2006). Additionally, Kelly and Shogren (2014) reported that students have more opportunities to engage in self-determined action than students acknowledge having. Kelly and Shogren found that students who engaged in self-determined behavior tend to be afforded with more opportunities to practice self-determination skills, while students who are assumed to be less capable of engaging in self-determined behavior are not given as many opportunities to practice these skills. This discrepancy in opportunities may lead to lower skill development due to a lack of practice. Interventions for students with disabilities should focus on a combination of teaching self-determination skills and providing opportunities to practice those skills (Kelly & Shogren, 2014).

Effects of self-regulated learning on academic achievement. Self-regulation skills are defined as those skills needed for students to translate their academic potential into productive behavior, including goal-setting, planning, persistence, self-monitoring, strategy selection, and self-reflection (Zimmerman, 2002). Several research studies have shown the mediating impact of self-regulation on the achievement scores of adolescents (Kistner et al., 2010; Klassen & Lynch, 2007; Klassen, 2010; Zimmerman, 2008; Zimmerman et al., 2011).

For students with or without disabilities, learning self-regulation skills has been found to lead to positive effects on their academic development (Maftoon & Tasnimi, 2014; Stoeger, Sontag, & Ziegler, 2014; Vandevelde, Vandenbussche, & Van Keer, 2012). Stoeger et al. (2014) assessed how a teacher-led intervention carried out during regular classroom instruction and homework affected the fourth grade students' academic performance, specifically on discovering ideas in expository texts as well as their reading comprehension (Stoeger et al., 2014). Through a quasi-experimental study involving three groups of students—266 students taught under general classroom, 268 taught with text reduction strategies, and 229 students taught with text reduction strategies as well, but under a framework of self-regulated learning—it was found that text reduction strategies under self-regulated learning context led to positive results (Stoeger et al., 2014). Maftoon and Tasnimi (2014) too found that students with improved self-regulation skills comprehend what they are studying more. Maftoon and Tasnimi looked at the effects of self-regulation on English learners' reading comprehension. Gathering data from 149 Iranian EFL language learners enrolled at Islamic Azad Universities of Qazvin and Tehran and evaluating their performance, results indicated that tasks designed according to the self-regulation strategies put forward by Zimmerman (1989) showed promise. Self-regulation learning skills helped improve the reading comprehension of Iranian EFL learners.

At the same time, Lysenko and Abrami (2014) found that children's reading comprehension can be improved through self-regulated learning skills. In addition, they evaluated whether two Web-based applications, interactive multimedia literacy software and digital process portfolio, can improve their self-regulated learning skills and

ultimately, their reading compression skills. Carrying out two studies, one from 2010 to 2011 and one from 2011 to 2012, wherein 26 teachers from elementary schools and their students were assessed, Lysenko and Abrami found that self-regulated skills facilitated by these tools have positive results on reading achievement of the students. Students utilizing both web-based applications performed significantly better compared to other controls for improving reading and written expression, as measured through standardized tests (Lysenko & Abrami, 2014). Outside of reading, studies revealed that self-regulation can affect early academic skills such as math and literacy positively (Ponitz, McClelland, Matthews, & Morrison, 2009).

Some studies also revealed that self-regulation can lead to advanced writing skills for children (Boss, 2014; Graham, Harris, & Mason, 2005). Boss evaluated the effects of self-regulation skills on the writing skills of younger children. Analyzing data from 161 preschool and 139 kindergarten children from 4-6 years using measures of early/emergent writing (name writing, letter writing, and spelling) and a direct measure of self-regulation (Head-Toes-Knees-Shoulders task; HTKS), Boss found that teaching self-regulation positively affected writing skills for both grade levels, but not as expected. On the one hand, self-regulation significantly and positively improved the letter writing and spelling only for preschool children. On the other hand, the letter writing and spelling skills of those in kindergarten did not improve. Still, self-regulation skills led to better knowledge of writing and composition tasks among kindergarten children (Boss, 2014). This finding goes against a previous study by Kistner et al. (2010).

According to Kistner et al. (2010), explicit teaching of self-regulated learning strategies was highly correlated with increased student understanding of the academic

content taught. Additionally, they assessed the impact of implicit strategy instruction through the use of teacher modeling, and determined that students who receive primarily implicit self-regulated learning strategy instruction do not show significant gains in academic achievement (Kistner et al., 2010). The findings of Kistner et al. were supported by Ness and Sohlberg (2013). When considering the impact of self-regulated learning strategies on student achievement, it is apparent that explicit strategy instruction is far more impactful than implicit strategy instruction (Ness & Sohlberg, 2013).

Academic achievement for students with disabilities can be impacted by their difficulty with specific self-regulation skills, such as task initiation, assignment completion, and self-reflection. The use of a strategy instruction model demonstrated effectiveness in increasing student task completion and independent work in a resource class setting (Ness & Sohlberg, 2013). Another component of SAAS is self-reflection, where students were instruction to reflect on how effective they were in following the four-step model (Ness & Sohlberg, 2013). The effectiveness of this intervention is further evidence that explicit instruction in self-regulated learning strategies can be beneficial to the education of students with disabilities.

Effects of self-regulated learning on motivation. Students need to be actively involved in their learning by using self-regulated learning strategies, including those that relate to motivation. Research on motivation as an aspect of self-regulated learning reveals a cyclical process wherein the effective use of self-regulated learning strategies leads to greater motivation to use self-regulated learning strategies (Zimmerman, 2008). Current research has indicated that motivation can be regulated by using specific strategies (Wolters, 2003). Some of these strategies include structuring the environment

for success, using self-talk to reinforce the attainment of desired goals, and imposing self-consequences (Wolters, 2003). In reference to students with disabilities, teachers can explicitly teach these motivational self-regulation strategies instead of using external rewards and punishments.

Barriers to teaching self-regulated learning skills. Albeit limited, some studies found that teaching self-regulated skills can be difficult because of various barriers (Cho et al., 2011; 2013). Cho et al. (2011) asked teachers about the barriers they faced in teaching self-determination skills, including self-regulation. Teachers indicated that their students had other more urgent academic needs as their primary reason for not spending more time teaching these skills. Based on this finding, it appears that some teachers may not understand the importance of teaching self-regulation skills to students with disabilities.

Cho et al. (2013) conducted a study on the factors related to the teaching of self-determination skills. In this study, Cho et al. analyzed the responses of 400 general and special educators. It is revealed in this study that teachers reported teaching self-regulation skills at the same rate regardless of whether they were teaching in a general education classroom or a resource classroom (Cho et al., 2013). Additionally, they determined that out of six self-regulation skills, the teaching of self-evaluation was most highly correlated with the overall teaching of self-determination skills. The findings went against previous findings that have highlighted the discrepancy between the importance teachers place on teaching self-determination skills and the time they actually spend teaching those skills, implying that teaching these skills are not worth the effort (Dignath & Buttner, 2008; Kistner et al., 2010).

Conclusion of Literature Review Findings

There is a trend among researchers regarding teachers' perception on the importance teaching self-regulation among students. For instance, Cho et al. (2011) reported that teachers believe that teaching self-regulation is important. Moreover, it was found that specific intervention programs and strategies which involves self-regulation development have can positive effects on students (Agran, Wehmeyer, Calvin, and Palmer, 2008; Cho et al., 2011). However, Causton-Theoharis et al. (2011) posited that these intervention programs and strategies were not incorporated into daily or weekly teaching interactions. If teaching self-regulation is not implemented in the regular classroom, it can be assumed that it is worse case for teaching children with disabilities. With this issue, the current project study will examine middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities.

Implications

The findings of the current study may contribute to the body of knowledge needed to address this problem by focusing on middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. With improved knowledge comes possibilities of including training for administrators on the importance of assessing the teaching of self-regulation skills, professional development modules to help teachers learn to identify and intervene in the area of self-regulation skills, or information to address the possible barriers teachers experience when they consider teaching self-regulation skills to adolescents with disabilities. Depending on the results of this study, professional development may not be the best plan in the local

setting. It is possible that some middle school teachers understand the importance of self-regulation skills and know how to teach self-regulation skills, but do not have the time or necessary support to teach these skills on a consistent basis.

The results of this study will provide more clarity regarding where to focus energy in making positive changes. By bringing more attention to the concepts of self-regulation and self-efficacy for students with disabilities, this study could help other schools refine their practice of assessing the teaching of self-regulation skills. More information regarding middle school teachers' experiences with and perceptions of teaching self-regulation skills could also encourage further exploration of the impact of self-regulated learning for adolescents with disabilities.

Summary

Available research reviewed showed that self-regulation skills can significantly and positively shape high academic achievement and community participation outcomes for adolescents with disabilities (Caughy et al., 2013; Gawrilow et al., 2014; Van Beek et al., 2014). Students with disabilities, in particular those who are lacking self-regulation skills, have lower academic achievement, and poor community participation. Research indicates that teachers typically choose motivational techniques to improve student performance (Hofferber & Wilde, 2014; Urhahne, 2015). As such, this serves as motivation to understand teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. In particular, it begs the question of whether or not teachers are consistently teaching these skills, and if not, what supports they need to do so. According to several teachers in the local district, students with disabilities were performing below their potential. With current research supporting the

use of self-regulation instruction for improving achievement and teachers infrequently using these techniques, there is a gap between research and practice (Hofferber & Wilde, 2014; Urhahne, 2015).

Based on Zimmerman's self-regulated learning theory, students need to be explicitly taught how to begin an academic task, sustain effort during a task, and reflect on their performance after completion. Bandura's self-efficacy theory aids in understanding some of the reasons for the perceived lack of effort on the part of students and several ways to increase academic self-efficacy. Based on these two theories, students need to be instructed in several strategies to regulate their own learning, in addition to experiencing the success that comes with a greater sense of academic self-efficacy.

The current study explored middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. The outcomes of this study were aimed at informing administrators of the importance of assessing the teaching of self-regulation skills, in addition to understanding what teachers need in order to consistently teach self-regulation skills to adolescents with disabilities.

In Section 2, I present the rationale for choosing a qualitative case study design. I discuss a description of the setting and sample selection, including the protection of human subjects. I outline data collection methods and tools. I describe the data collection and analysis process, including coding procedures and the use of computer software. I also describe the results of the data analysis.

Section 2: The Methodology

Introduction

The purpose of this study was to understand middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. In Section 2, I discuss the important aspects of this qualitative case study design and the reasons that a case study was an appropriate method for this study. I provide the rationale for choosing the case study design over other research method options. In so doing, I explain the selection of participants, protection of participants, data collection tools, and procedures. I offer a description of data analysis procedures, methods for coding and analyzing data, and the strategies I used to increase validity and control bias. Section 2 concludes with the results of data analysis.

Research Design

Based on previous research in the area of self-regulation skills, it has been seen that students who are explicitly taught self-regulation skills show an increase in their academic self-efficacy and achievement (Zimmerman et al., 2011). Despite the reported benefits of teaching self-regulation skills to students with disabilities, teachers have rarely engaged in the explicit instruction of self-regulation skills (Kistner et al., 2010). A problem in the local middle school was that there had been no assessment of whether or not teachers were explicitly teaching self-regulation skills to adolescents with disabilities.

In a quantitative design, the researcher aims to collect numerical data to analyze for significant differences or trends (Creswell, 2012; Yin, 2014). Some aspects of the local problem may be further understood with quantitative research, such as the possible

difference between the reported teaching of self-regulation skills and the actual observed teaching of these skills or an assessment of students' reported self-regulation skill use. While these topics would be worthy of study, the aim of this project study was to provide insight into local middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. Because of the lack of local assessment in this area, quantitative inquiry was not the most appropriate method.

I selected a case study methodology for this project study because of the need to conduct "a detailed examination of one setting" (Bogdan & Biklen, 2007, p. 59). This method was chosen after careful consideration of other qualitative approaches, such as ethnography, phenomenology, and grounded theory research. Ethnography was not chosen because the method is more appropriate for researchers who are conducting fieldwork with direct involvement in the lives of the subjects. It is used to understand the cultural nuances of a particular group of individuals. Grounded theory was not chosen because it works best for those researchers who seek to discover or craft theories regarding a phenomenon using themes derived from data. Phenomenology is for researchers who are studying lived experiences of participants in relation to a specific phenomenon (Creswell, 2012).

Case study is the most appropriate research strategy to provide a detailed account of a person, company, or industry (Yin, 2014). This study was designed to provide a detailed examination of teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities in a bounded system—specifically, one middle school in a rural community. Because case study was defined by Creswell (2012)

as exploration of a bounded system, it was identified as the best method to use for this study.

The goal of a case study is to gather a wide variety of information from various sources in order to represent the complexity of the topic under investigation (Bogdan & Biklen, 2007). Based on the research questions, I gathered information from interviews and lesson plans and then synthesized those data. The use of triangulated data from varied sources provided the appropriate avenue for gathering information about middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. A case study was the best choice for this project study because of the small population size and the need for in-depth study of the experiences and perceptions of middle school teachers regarding teaching self-regulation skills to adolescents with disabilities. Gathering descriptive data from interviews and reviewing lesson plans allowed me to draw conclusions based on the convergence of data from multiple sources (Yin, 2014).

Participants

I conducted this case study in a middle school in Georgia. There were 2,741 students in this school district, with 589 of those attending the middle school (Lamar County Schools, 2015). There were approximately 40 teachers at the middle school (seven were special education teachers). Students with disabilities accounted for 13% of the student population of the middle school. The majority of teachers had some level of contact with students with disabilities due to the fact that students with disabilities were included in general education classes to the extent that it was beneficial to their

education. Despite the fact that many students with disabilities were in general education classes, students with disabilities continued to perform at significantly lower levels than their peers on standardized testing (Lamar County Schools, 2015).

In order to answer the research questions, I used purposeful sampling to select the participating teachers. According to Bogdan and Biklen (2007), purposeful sampling involves selecting participants who will be able to provide information that will help further the understanding of the topic. Purposeful sampling involves seeking participants who may provide alternate views of the topic. The cases that did not fit the majority of the data were used to refine my understanding and explanation (Bogdan & Biklen, 2007; Yin, 2014). Purposeful sampling was an appropriate sampling technique for this case study because of the need to explore a wide range of questions using a relatively small number of participants. In order to narrow down the list of possible participants, teachers who were not teaching students with disabilities were not included in this study. As such, I sampled middle school special education and general education teachers who were actively teaching students with disabilities at the time of the study.

In order to select participants, I sent an email to all special education teachers and regular education teachers who were currently teaching middle school students with disabilities in the district. The content of the email was identical to the informed consent form (Appendix B). I selected eight teachers from the local middle school to be interviewed. The teachers selected included at least one teacher of each core academic subject: language arts, math, science, and social studies. Teachers from each of these subject areas were included because the skills needed and taught in different subjects

might be different or specific to their area of instruction. Six of the teachers interviewed were certified to teach special education; however, four were functioning in the primary role of special education teacher and case manager. Although they were dually certified to teach general education and special education, the other four teachers were serving in the role of general education teacher. It was important to interview certified special education teachers because these teachers have the most direct impact on students with disabilities, in that they conduct Individual Education Plan (IEP) meetings and oversee the implementation of these plans.

Before discussing the study with prospective participants, I requested and received approval from the Walden University Institutional Review Board (IRB #05-31-16-0185660). The purpose of the IRB is to ensure that research is conducted with a focus on participant protection, including confidentiality and integrity (Walden, 2014). As part of IRB approval, I requested participation from the local middle school by sending a letter containing my request to conduct the research. After receiving written approval from the IRB, I began data collection by emailing teachers to request their participation.

Protection of Participants

The protection of participants is of high priority in research. In order to protect the participants in this study, I received training from the National Institutes of Health (NIH) Office of Extramural Research. This training addressed protecting participants from harm, the importance of confidentiality, and considerations about the benefits versus the risks of research projects (National Institutes of Health [NIH], 2014).

In order to comply with IRB guidelines and NIH standards, I asked all participants to sign an informed consent document. According to Creswell (2012), the use of an informed consent form helps the researcher and participants remember to protect participants' rights. The consent form contained a description of the purpose of the study. In the informed consent form, I informed participants that there were no or only minimal risks associated with participating in this study. Participants' identities were safeguarded in this project study by changing their names to pseudonyms and omitting any personally identifiable information. In order to ensure that participants were protected, I stored their interview transcripts and reviewed lesson plans in a password-protected document on my personal hard drive. One document containing a list of participant names and pseudonyms, along with hard copies of the signed informed consent forms, was stored in a locked cabinet in my office. I will maintain these confidential documents for 5 years after the research study is completed. After 5 years, I will delete the digital files and shred the hard copies.

In order to build rapport with participants, I informed them of the purpose of the study and their expected time commitment. I assured them that all information they provided would remain confidential. This was important because the participants needed to feel safe in order to express their true thoughts and feelings without any fear of negative consequences (Bogdan & Biklen, 2007).

Data Collection Methods

In the process of planning this case study, I considered several data sources that could provide information to answer the research questions. I chose techniques that

aligned with the qualitative tradition of seeking to develop a rich understanding of a topic. These choices aided me in gathering a large amount of detailed information that I analyzed in order to provide a description of teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities.

Teachers in one middle school participated in individual interviews and submitted lesson plans for review. I interviewed teachers regarding their experiences with and perceptions of teaching self-regulation skills to adolescent students with disabilities. I developed interview questions with the help of an intensive review of literature on self-regulation skills and teachers' roles in teaching these skills to students with disabilities (Appendix C). My doctoral study committee reviewed and approved the interview questions prior to the interviews.

I collected additional data through reviewing teacher lesson plans. Reviewing lesson plans provided insight into the activities that teachers plan to use when providing classroom instruction. Based on the literature review, I developed a document review protocol (Appendix D). I used the document review protocol to structure my review of teacher lesson plans.

Using a case study methodology, I explored the following overarching question: What are middle school teachers' experiences with and perceptions of teaching self-regulation skills to students with disabilities? In exploring this research question, the following topical subquestions, as they related to the local setting, were used to guide the study:

1. What experiences have middle school teachers had with teaching self-regulation skills to adolescents with disabilities?

2. How do middle school teachers perceive self-regulation skills for adolescents with disabilities?

3. What assistance, if any, do middle school teachers believe they need to support the teaching of self-regulation skills to adolescents with disabilities?

Individual Interviews

One source of data for qualitative inquiry is the individual interview. Such interviews can be "used to gather descriptive data in the subjects' own words so that the researcher can develop insights on how subjects interpret some piece of the world" (Bogdan & Biklen, 2007, p. 103). In this study, I employed interviews in order to understand the experiences and perceptions of middle school teachers related to teaching self-regulation skills to students with disabilities.

I developed the semistructured interview instrument to focus on questions related to middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. Based on previous research in the area of self-regulation, questions addressed various aspects of self-regulation, including the use of student-directed learning, goal setting, self-monitoring, maintaining motivation, and strategy selection (Appendix C). The interview questions were based on the literature review, and the interview protocol was approved by the doctoral study committee.

According to Anyan (2013), it is important for interviewers to recognize and be thoughtful about the natural power imbalance inherent in the interviewer-interviewee

relationship. He recommended that researchers attempt to maintain a neutral power balance, recognizing the power of interviewees to choose whether or not to answer each question, provide partial answers, or terminate the interview (Anyan, 2013). Reflection on the power dynamics and flow of the interview process was an important part of data gathering for this study. As a local school psychologist, I had a professional relationship with the participating teachers; however, I did not hold any supervisory role. In the school district, I was in a service role and did not make any decisions regarding a teacher's job performance.

Prior to the interviews, I discussed the purpose of the study with the participants, had the participants sign an informed consent form, described my role in the research process as separate from my role as a school psychologist, and provided assurance that participants' responses would be treated with concern for confidentiality. In their informed consent forms, I asked them for the most convenient location and time for them to participate in the interview. Each interview lasted between 20 and 50 minutes, during which I asked open-ended interview questions related to the research questions. I provided each participant with time to explain and respond comprehensively. After participants were given the opportunity to respond to the questions, I asked follow-up questions in order to probe the meaning of the participant's responses (Creswell, 2012).

After each interview, I recorded my reflections and impressions in a research journal. My researcher field notes included a description of the setting and the participant's demeanor in order to offer an accurate account. The reflections I recorded emphasized the flow of the interview, the rapport with the participant, and the

assumptions that arose during the interview (Anyan, 2013; Bogdan & Biklen, 2007). I used field notes to decrease researcher bias by reflecting on my own thinking.

I digitally recorded and transcribed each interview within 48 hours after it was conducted. Transcripts of each interview underwent member checking. I gave the transcripts to the participants in order for them to correct wrong transcriptions or interpretations of the transcripts. Each participant reviewed the interview transcript and provided feedback regarding the accuracy of the document. All participants provided feedback indicating that their transcripts were accurate. The use of member checking served to increase internal validity. It also assisted me with maintaining objectivity and limiting bias (Anyan, 2013).

Document Review

Official documents can be used in qualitative research as a means to understand the culture of an organization that is being studied (Bogdan & Biklen, 2007). In this case study, I reviewed classroom lesson plans. These documents outlined the proposed activities for each instructional period.

In order to obtain lesson plans, I asked all teachers who were interviewed to provide copies of their lesson plans for the previous 4 weeks. The provided lesson plans were reviewed using the document review protocol (Appendix D). I developed this protocol based on the self-regulation strategies outlined in the literature review, including the use of instruction in elaboration, organization, problem solving, reasoning, goal setting, self-evaluation, and feedback. The document review protocol was reviewed and

approved by the doctoral study committee prior to being used to review any lesson plans for this study.

I obtained general education lesson plans for all four core academic content areas, including English language arts, math, science, and social studies. Teachers in the local middle school work in grade level, content specific teams to develop common lesson plans that they call scope and sequence plans. All teachers use the scope and sequence plans to maintain a common pace toward teaching the standards. The special education teachers were not able to provide lesson plans because of the nature of their job responsibilities. In this middle school, special education teachers did not write separate lesson plan. Thus, their plan for each instructional period was to make sure that the accommodations and modifications of students with disabilities were being administered. The special education teachers were not able to provide any separate documents that I could review.

Data Analysis Process

Qualitative research typically includes several sources of data in order to obtain the most valid and reliable results. According to Bogdan and Biklen (2007), triangulation of the data is important because "multiple sources lead to a fuller understanding of the phenomenon" (p. 115). In this study, data triangulation involved interviewing participants who teach different academic subjects and reviewing lesson plans. I coded and analyzed the data sources in order to locate themes.

Lewins and Silver (2007) compiled a resource of the most frequently used computer-based qualitative analysis programs. According to their research, computer

software is useful to researchers in all phases of the research process, including transcribing interviews, coding data, writing reflective memos, and drawing conclusions (Lewins & Silver, 2007). For the purposes of this study, I used ATLAS.ti, a computer-based qualitative analysis program, in the process of coding and analyzing data. I explored the themes that emerged regarding middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities.

After each interview was transcribed and checked for accuracy, I began the data analysis process. I read each interview several times to develop a general impression of each teacher's experiences, perceptions, and needs. I used thematic analysis to interpret the data, which is the process of sorting data into categories based on coded themes (Creswell, 2012). Themes could have been pre-determined; however, for this study, I formed themes from the data instead of pre-determining themes. I coded individual interviews into categories or themes that were grouped and organized. Interpretation followed thematic analysis, allowing me to connect the themes to the literature and make a personal assessment (Creswell, 2012). This coding and thematic analysis lead to the formation of themes. During this study, I used thematic analysis to help answer the research question: What are middle school teachers' experiences with and perceptions of teaching self-regulation skills to students with disabilities? I organized the data into themes to assist in describing middle school teachers' experiences with teaching self-regulation skills, perceptions of the self-regulation skills of their students with disabilities, and the areas in which they believed they might need additional support.

I reviewed teacher lesson plans in order to provide insight into planned instructional activities. The lesson plans were analyzed in reference to their mention of self-regulation skills. Reviewing lesson plans provided insight into how middle school teachers plan to incorporate aspects of self-regulation skill instruction into their daily teaching practice. Themes that emerged from the review of lesson plans were used in conjunction with themes from the individual interviews to further my understanding of the experiences and perceptions of middle school teachers regarding teaching self-regulation skills to adolescents with disabilities.

Cases that did not easily follow the themes of the majority of the results were encountered during this study. With the understanding that it is possible that discrepant cases could provide insight into the complexity of the dynamics in the local setting, I further explored these cases (Creswell, 2012). The majority of teachers provided fairly consistent responses; however, I encountered two discrepant cases that were further analyzed for the value that a different perspective could bring to the results. The two teachers whose responses deviated from the majority or did not have similarity with other participants were called for a follow-up interview. In both cases, I conducted follow-up interviews to explore the divergent cases in more detail. During the follow-up interview, I asked the teachers to talk more about their training experiences, specifically those focused on self-regulated learning.

Both of these discrepant cases involved teachers who were new to the local middle school. One teacher had several years of teaching experience in another school district. She was able to share a variety of training experiences that were different from

the experiences of the majority of the participants. The other teacher was new to teaching. She reported more training needs than any other teacher I interviewed. These discrepancies were based on the differences in training that these teachers experienced, compared to the training of the teachers who had worked in the district for a longer period of time.

Data Analysis Results

In this qualitative case study, I examined the perspectives of middle school teachers regarding their experiences with and perceptions of teaching self-regulation skills to students with disabilities. Gathering descriptive data from interviews and reviewing lesson plans allowed me to draw conclusions based on the convergence of data from multiple sources (Yin, 2014). During the process of gathering data, I kept objective and reflective field notes in order to control for bias and increase objectivity. Thematic analysis allowed me to build categories and themes based on an extensive review of the interview transcripts and lesson plans. I used these themes to answer the research question regarding middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities.

Individual Interviews

The interview questions were structured to encourage middle school teachers to discuss their perceptions of the self-regulation skills of adolescents with disabilities. Additionally, teachers were asked to describe their experiences with teaching self-regulation skills to adolescents with disabilities and any supports they may need to more consistently teach these skills. The first few questions focused on teachers' experiences

with and perceptions of teaching adolescents with disabilities, the obstacles those students face in middle school, and their understanding of the students' preparation for independent learning. The next few questions asked about teachers' experiences teaching self-regulation skills to adolescents with disabilities. The final questions focused on any supports the teachers believed that they needed in order to consistently teach self-regulation skills to adolescents with disabilities. Interview responses were reviewed and coded into categories that were responsive to the research question and mutually exclusive (Merriam, 2009).

Teachers' Experiences Teaching Self-Regulation Skills

In order to address the research question, I asked teachers to talk about the experiences they have had with teaching self-regulation skills to adolescents with disabilities.

Teachers' definitions of self-regulation. Each teacher had a different definition of self-regulation skills. According to the research, there are many different theories and definitions of self-regulation (Butler & Schnellert, 2015). Given that there are multiple definitions in the literature, it is not surprising that teachers do not share a common definition of self-regulation.

Special education teachers who were interviewed for the current case study talked about self-regulation as self-knowledge, self-advocacy, and self-direction. Sheniqua, a special education teacher, described self-regulation as "being able to decide what they need and how they need to…what steps they need to take to get what they need from somebody or get what they need accomplished." Another special education teacher, John,

talked specifically about the importance of self-advocacy. He stated that students need to be "able to understand and know their needs and how best to be able to obtain things that they need."

The local special education teachers credit their understanding of self-regulation to the training they have received about using the Aspire program. Lily Kate, one of the special education teachers, stated that she talks with the students on her caseload about setting goals, "especially now that we are having to do the Aspire stuff." Another special education teacher, Sheniqua, stated that she did not have any prior experience with teaching self-regulation skills. She said, "other than this Aspire stuff we did last year…was my first experience with knowing about self-regulation." The Aspire program focuses on increasing self-determination and self-advocacy in students with disabilities (Georgia Department of Education [GADOE], 2015). One aspect of self-determination is self-regulation; however, the concept of self-determination also includes autonomy, psychological empowerment, and self-realization (Cho et al., 2013). Based on the teachers' comments, they have primarily focused on the psychological empowerment and autonomy aspects of self-determination, in that they repeatedly mentioned self-knowledge and self-direction.

General education teachers seemed to have more difficulty producing their own definition of self-regulation. Several teachers talked about self-regulation as independent functioning, organization, and self-control. Anne, a general education teacher, described self-regulation as being able to do "normal things," such as having their supplies or getting started on an assignment, without much prompting or instruction. Another general

education teacher, Elle, included self-direction in her definition, stating, "I think that would be their ability to control their behavior, to be organized…their self-direction, I guess." The other two general education teachers mentioned being able to adapt to new situations, reflect on their own learning, and use higher order thinking skills.

While they did not share a common understanding or definition, when asked about specific aspects of self-regulation, teachers were able to describe various ways that they have taught these skills to their students with disabilities. Teachers at the local middle school reported that they have taught a variety of self-regulation skills to adolescents with disabilities. Some of those skills include self-efficacy, goal setting, organization, self-monitoring, and self-reflection.

Self-efficacy. During the forethought phase of self-regulated learning, students make decisions about their ability to complete a task (Zimmerman, 2002). Students who believe that they can successfully complete a task are more likely to be motivated to engage in the task and use self-regulation skills to complete the task (Bandura, 1997). When discussing strategies to increase student motivation, most teachers did not mention the concept of self-efficacy. They did, however, talk about the use of specific verbal feedback. Anne, a general education teacher said that she often tells her students, "you're doing great. Here's what you can do to do better." Beyond providing feedback, general education teachers did not talk about strategies for increasing student self-efficacy.

When specifically asked about how teachers help students believe that they can learn, one special education teacher talked about showing them their progress across time. Another special education teacher, Sheniqua, reported that her students "would get

into a competition where they would want to do better than last time" because if they

showed improvement on their self-monitoring she would give them a Snickers candy bar.

Sheniqua seemed to find success in increasing self-efficacy and motivation by combining

self-monitoring with positive reinforcement. Due to time constraints, Sheniqua no longer

instructs her students to self-monitor their progress.

One teacher reported experience using strategies that were focused on increasing

self-efficacy. LaShond, a special education teacher, stated that she attended a training by

Suzy Pepper Rollins that taught her several teaching strategies that she has consistently

used to increase student self-efficacy. Some of those strategies include the use of graphic

organizers, student choice, and an emphasis on teaching a variety of problem solving

strategies. For Lashond, increasing motivation was based on teaching her students the

strategies and skills they needed, while providing them with support to use those

strategies and skills.

Goal setting. Setting goals is an important aspect of the forethought phase of self-

regulated learning. According to Zimmerman (2002), setting proximal goals is linked to

the achievement of greater academic success. Proximal goals are concerned with the

activities that students intend to do in order to achieve their desired outcome, rather than

focusing on the outcome itself.

In reference to goal setting, two teachers reported that they primarily engage in

supporting students with setting goals related to behavioral concerns. The teachers

reported positive results with students who engaged in behavioral goal setting. One other

teacher talked about helping students set goals related to their performance on a pre-test

or periodic progress monitoring assessment. LaShond, a special education teacher, talked about working with her students to set goals after completing a pre-test. She also talked about helping them set goals to improve their classroom grades throughout the year. In contrast to Zimmerman's focus on proximal goals, these teachers talked about helping students set distal goals, which focus more on the desired outcome.

Organization. Organization is another aspect of the forethought phase of self-regulated learning. According to Zimmerman (2002), self-regulated learners should be able to plan their approach to a task and gather the necessary resources or materials. Organization is an area of concern for most teachers in this study. The teachers reported that most adolescents with disabilities do not have the organizational skills necessary to be successful in middle school. Specifically, teachers are concerned that students do not come to class with the necessary supplies, have trouble keeping up with their assignments, do not know how to take notes, and have difficulty organizing their thinking. Research supports the notion that students with disabilities often have difficulty with organization (Mitchiner et al., 2014).

Several teachers reported teaching organizational skills through teaching students how to write down important information about assignments. Elle, a general education teacher, stated, "we are trying to teach organization and we could spend way more time doing that, but again, there's not time to help them with their agendas every day, making sure they have everything." While time was an area of concern for teachers, the general consensus from the teachers in this case study was that these organizational skills need to be taught.

Other teachers talked about the importance of teaching students how to take notes. One general education teacher, Anne, teaches her students to use the Cornell notes format. According to Anne, the students are directed to use a template to record their notes, generate their own questions about the material, and summarize their notes. LaShond, a special education teacher, teaches students to use guided notes and create graphic organizers to help them visually organize their notes.

Self-monitoring. During the performance phase of self-regulated learning, students are expected to engage in self-monitoring, including observing their progress towards their goals (Zimmerman, 2002). In regard to self-monitoring, the teachers in this case study talked about using self-monitoring mostly for behavioral goals. Some special education teachers mentioned helping students self-monitor their progress towards learning goals; however, there was little mention of the type of self-monitoring that occurs during the performance of a task.

Two special education teachers talked about using visual prompts to encourage students to self-monitor their progress towards completing a task. Their stated goal with prompting the students to self-monitor was to encourage the students to seek help when they needed help. Another special education teacher, John, talked about discussions that he has had with his students regarding how their current strategies are working. During these discussions, John stated that he mostly asks questions, such as "how's it going? What's working? What's not working?" This type of questioning can support the development of self-monitoring. Sometimes students with disabilities need visual and verbal prompting to help them learn to self-monitor.

Self-reflection. The self-reflection phase includes those activities that students engage in after an activity, in order to determine the reasons for their performance and things they might do differently next time (Zimmerman, 2008). Teachers reported that students with disabilities typically do not take responsibility for their learning. For instance, Elle, a general education teacher, stated that her students ask her why she gave them a certain grade. She believes that her students do not link their effort and performance to the grades that they earn. In order to combat this common tendency, Bob, a special education teacher, directs his students to calculate their own grades. Bob believes that when students calculate their own grades they will be more likely to see the connection between their effort and their grade. Bob also uses this as an opportunity to talk to his students about what they might do differently to receive a higher grade on the next assignment.

One general education teacher, Anne, talked about using structured self-reflection activities on a regular basis. She said, "there's a rubric for it. There are specific instructions and things they have to do." During their structured self-reflection activity, Anne's students are directed to answer questions, such as "if you could do this assignment again, what would you do different?" The use of structured self-reflection protocols can increase self-regulation when the students focus on self-observation, learning goals, and strategies (Al-Rawahi & Al-Balushi, 2015).

Several other teachers talked about having conversations with students about the reasons for their performance. These teachers did not follow a structured process, but rather engaged in a more informal discussion where they asked questions about how

things were working or what they think might need to be done differently. This type of verbal feedback, where students are guided to think about the reasons for their performance, has been shown to be effective in increasing self-regulated learning (Belski & Belski, 2014).

Teachers' Perceptions of Self-Regulation Skills

In order to address the research question, I asked teachers to talk about how they perceive self-regulation skills for adolescents with disabilities.

Perceived benefits of teaching self-regulation skills. All teachers in this case study reported that they believed self-regulation skills would be beneficial, especially for students with disabilities. One teacher reported that she thought students could benefit by not requiring as much prompting or as many accommodations. Another teacher said, "self-regulation skills can definitely benefit adolescents. Those ones who have that skill, they're gonna be the ones who probably…I don't want to say score, but perform better. They usually perform better than those who don't have those skills." Research supports the idea that students with greater self-regulation skills generally perform better, both academically and socially (Jahromi et al., 2013; Regan & Martin, 2013).

Perceived barriers to teaching self-regulation skills. In general, teachers at the local middle school reported that students are not prepared for the independent learning and responsibility demands of middle school. Some challenges reported include students missing basic skills in reading, math, and writing. Teachers also reported that students with disabilities are not organized, do not know how to take notes, do not study, and do not appropriately ask for help. Teachers perceive these to be the most important skills to

teach, beyond the necessary core academic content. Cho et al. (2011) found that teachers did not spend a significant amount of time teaching self-determination and self-regulation skills because the teachers believed that their students had more urgent needs, specifically regarding basic reading and math skills.

Perceptions about motivation. According to Bandura et al. (1996), high self-efficacy is related to increased motivation. Teachers are in a unique position to help students develop self-efficacy because they can talk to students about the reasons for their performance, help them experience success, and show them how others have been successful with similar tasks (Bandura, 1997). When discussing student motivation, most teachers talked about difficulty with helping students find or increase their motivation. Several teachers pointed out that the students lack intrinsic motivation and that extrinsic motivation does not work for all students. Some teachers stated that they used extrinsic rewards, such as tally marks, treats, or privileges.

Several teachers talked about their perception that motivation is related to the relationships that students have with their teachers. One teacher stated, "It's relationships. It really is because if they don't like you, they're not going to do for you. And they're going to try better because they like coming to your class. That is so important." For Bob, a special education teacher, motivation was purely based on his relationship with his students. He stated, "the motivation is the relationship that we have." This focus on relationships was echoed by several other teachers. Research supports the idea that student-teacher relationships are important for students with disabilities (Obiakor et al., 2012).

Several teachers reported that motivation was an especially challenging aspect of teaching. When asked about motivation, Elle, a general education teacher, stated, "that's the hard one. That's really hard." In reference to one particular student, Anne, a general education teacher, stated, "no, there's no intrinsic motivation. And the cause of that, I don't know…years of failure." Research supports the idea that repeated failure can decrease motivation, especially when considering of the impact that repeated failure has on self-efficacy (Zimmerman, 2002).

Support Teachers Believe They Need to Teach Self-Regulation Skills

In order to address the research question, I asked teachers to talk about any assistance they believed they needed to support the teaching of self-regulation skills to adolescents with disabilities.

Teachers need student-specific information. According to Cleary (2011), teachers consistently report that they do not receive information related to motivation and self-regulation from special education documents, including psychoeducational reports or IEPs. Regarding the need for more information related to their students' self-regulation skills, most of the local middle school teachers stated that they were unsure of how to assess self-regulation skills or where to obtain information about their students' self-regulation skills. When talking about how to know which self-regulation skills students possess, one teacher stated, "I don't think so, I mean it'll have, like for kids that have behavior problems, it'll have some of that stuff in there, but it doesn't say self-regulation. So, a lot of times you get these kids and you come in blind and you have to figure it out." Another teacher echoed this sentiment when he asked, "no, is there stuff out there?"

These concerns are specifically talking about the lack of self-regulation assessment information.

Cleary (2011), reported that most school psychologists do not assess self-regulation or motivation when conducting psychoeducational evaluations. Consistent with Cleary's research, the comments from the teachers indicated that the local school psychologist does not evaluate self-regulation skills. Many of the teachers in this case study reported that they use the psychoeducational evaluation to plan their students' IEPs. Their psychoeducational reports contain information about cognitive abilities, academic achievement, adaptive skills, and social-emotional development; however, they do not generally contain information about self-regulation skills. If self-regulation skills are not assessed as part of the psychoeducational evaluation, teachers may not have any knowledge of these needs when planning student services.

Teachers need more time to teach self-regulation skills. Several teachers mentioned their concerns regarding feeling that they do not have enough time to teach the basic skills that their students are missing, incorporate instruction on self-regulation skills, and keep up with the pace of the content. They talked about being pressed for time just to cover the standards and seemed to see teaching self-regulation skills as something important that would need to fit within their existing curriculum instruction. Emily, a general education teacher, stated that "it's hard when you have a classroom full, you know, a full case load and you have 10 students in your classroom and you're having to keep behavior checklists and you're having to do this. It's hard…time management." Her concerns were echoed by Lily Kate, a special education teacher, who talked about the

difficulty with having students complete self-monitoring. She stated, "I used to do that when we did progress monitoring and they could see their grade and track it and then that became too much of a hassle for everybody to do their own. So, I did it for everybody." These teachers commented on the fact that they do not feel that they have enough time to teach all of the required standards, much less incorporate self-regulation strategy instruction into their daily schedule.

Teachers need professional development. Professional development is an ongoing process in the local middle school. Teachers meet for weekly sessions with a Learning Support Specialist. During that time, they engage in learning and discussions related to providing interventions to struggling students, documenting their progress, and making decisions using data. Most teachers in the current study did not mention the need for professional development. One teacher specifically stated that she did not need more professional development about "differentiation." Another teacher commented that teaching self-regulation skills should be "common sense."

In contrast, Sheniqua, a special education teacher, stated that she would like more training specifically focused on special education students. Another special education teacher, John, indicated that he would like to read some research-based articles with strategies that are relevant to his students. Researchers have found that teacher training related to self-regulation skills can be effective when part of the focus is on increasing the self-regulation skills of the teachers (Buzza & Allinotte, 2013).

Summary of interview data. Teachers in the local middle school were able to describe several methods they used to teach self-regulation skills; however, they

generally did not have a common understanding of the concept of self-regulation. Special education teachers seemed to know more about self-regulation due to their recent experience with the Aspire program. When discussing their experiences and perceptions, most teachers reported difficulty with student motivation, including strategies to build self-efficacy.

The needs mentioned by the teachers in this study indicate that they would like more information regarding the specific needs of their students, including self-regulation skills. While they recognize that teaching self-regulation skills is important, they are concerned with how to incorporate self-regulation skills into the existing time constraints of the curriculum.

Document Review

In conjunction with interviewing individual teachers, I also reviewed general education lesson plans for this case study. I used a document review protocol in order to focus my analysis of the lesson plans (Appendix D). The document review protocol focused on the use of instruction in elaboration, organization, problem solving, reasoning, goal setting, self-evaluation, and feedback. I reviewed lesson plans and coded them into themes that were responsive to the research question and mutually exclusive (Merriam, 2009).

The four general education teachers were able to provide lesson plans for the four previous weeks. Their lesson plans consisted of the specific standards that would be taught each day and the activities they would use to teach those standards. The four special education teachers were not able to provide lesson plans because their plan for

each instructional period was to make sure that the accommodations and modifications of students with disabilities were being administered. I conducted an analysis of the lesson plans of the four general education teachers in order to ascertain themes related to the teaching of self-regulation skills.

Most lessons included note taking, directed reading, and discussions. A few teachers included group projects that lasted for several days. According to English and Kitsantas (2013), project-based learning could be one teaching strategy that incorporates several aspects of self-regulation instruction, including planning, organization, problem solving, and attention focusing; however, there was no specific information regarding these aspects on the lesson plans. One teacher included student self-reflection during two lessons. Overall, the majority of lesson plans did not provide any indication of the explicit teaching of self-regulation skills. The fact that self-regulation skill instruction is not on the lesson plans does not mean that it is not happening. Its absence does seem to indicate that it is not a required aspect of the lesson planning process.

Discrepant Cases

During data collection and analysis, several themes surfaced such as the need for more information about the specific needs of their students with learning disabilities, ways to fit self-regulation skill instruction into the existing curriculum, and strategies to help their students build self-efficacy and motivation. Two discrepant cases emerged. In order to clarify the discrepancy, I called both teachers and asked them to talk more about their training experiences, specifically those focused on self-regulated learning. After the follow-up interview, I realized that these cases fit within the three main categories of

more information, time constraints, and motivation. The discrepancies that were observed in the initial interview were based on the differences in training that these teachers experienced, compared to the training of the teachers who had worked in the district for a longer period of time.

For instance, most teachers did not specifically state that they needed professional development; however, one teacher stated that she would like professional development focused on students with disabilities. The teacher is a new teacher who is currently receiving targeted professional development through the Aspire program. The Aspire program is focused on helping students become more self-directed, including developing student-led IEPs and student-directed goals (GADOE, 2011). With follow-up questioning, the needs of the teacher in this case were partially being addressed through a district-wide special education initiative.

The other discrepant case was an interview with a special education teacher who is new to the local school district. She talked about attending trainings that the teachers who have been in this district for several years have not attended. Upon further discussion, her experiences are different from the other teachers because of her prior training. While she has had more training related to teaching self-regulation skills, she still reported concerns with needing more specific information about the needs of her students with disabilities and increasing student motivation. She may be a valuable asset in this district if she can be embraced as a local expert.

Summary of Outcomes

The problem in this study was that there was a lack of evidence regarding assessment of whether or not teachers were explicitly teaching self-regulation skills to adolescents with disabilities. It is important to know if these skills are being taught because students with disabilities who are taught self-regulation skills demonstrate higher academic achievement scores. This study addressed this problem by exploring middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities.

I used thematic coding to analyze the data from interviews and documents. The use of multiple sources of information allowed me to triangulate the data across different data sources. Overall, the teachers indicated that they were unsure of whether or not their students possessed self-regulation skills, how to fit the teaching of those skills within the time constraints of the curriculum, and how to help their students increase motivation and self-efficacy. I expected the need for professional development related to teaching self-regulation skills to adolescents with disabilities to emerge as one of the supports the teachers believed that they need; however, most teachers did not specifically mention the need for professional development. The teachers did express a need for more information about self-regulation skill assessment for their specific students. Additionally, the teachers expressed a desire for ways to incorporate self-regulation skills in the existing curriculum and increase motivation and self-efficacy.

I used these data to answer the following overarching question and develop the project for this study: What are middle school teachers' experiences with and perceptions

of teaching self-regulation skills to students with disabilities? To further explore this research question, the following topical subquestions, as they relate to the local setting, were addressed during the study and used to develop the project for this study:

1. What experiences have middle school teachers had with teaching self-regulation skills to adolescents with disabilities? Data collection indicated that local middle school teachers do not have a common understanding of self-regulation skill assessment or instruction. Some teachers explicitly teach self-regulation skills to adolescents with disabilities, particularly through the use of the Aspire program. For instance, all four special education teachers mentioned teaching students how to set goals and advocate for themselves. One general education teacher reported that she asks students to set learning goals and self-evaluate their learning, which are aspects of self-regulated learning. Another general education teacher uses a structured self-reflection protocol. This is consistent with the findings of previous researchers indicating the few teachers actively teach these skills (Ursache et al., 2012; von Suchodoletz et al., 2013).

2. How do middle school teachers perceive self-regulation skills for adolescents with disabilities? Teachers generally believed that students with disabilities were not prepared for the independent learning demands of middle school. Overall, the teachers in this study reported that their students with disabilities had difficulty with various areas of self-regulation, including organization, goal setting, self-efficacy, and self-reflection. Other researchers have found

that students with disabilities lack self-regulation skills (Carter et al., 2006; Kelly & Shogren, 2014). In addition to talking about lacking self-regulation skills, several teachers commented that their students were not motivated to learn. According to Baird et al. (2009), teachers' perceptions of the reasons that students do not perform well dictate the teachers' choices of interventions.

3. What assistance, if any, do middle school teachers believe they need to support the teaching of self-regulation skills to adolescents with disabilities? The data collected during this study indicated that local middle school teachers felt that they needed more information regarding the needs and self-regulation skills of their students with disabilities. They also felt that they did not have enough time to teach the missing basic skills and self-regulation skills, while providing enough content instruction so that students are exposed to all content standards. In addition to feeling pressure to accomplish other goals, teachers expressed that they needed strategies for helping their students increase motivation and self-efficacy.

Evidence of Quality and Accuracy

During the process of this doctoral project study, I followed the traditional qualitative methods of increasing quality and accuracy. Additionally, I followed the Walden Institutional Review Board (IRB) ethical guidelines for quality research. In the field of qualitative research, it is generally understood that more than one source of information is needed to increase the accuracy of results (Bogdan & Biklen, 2007). I

triangulated the data by gathering information from multiple sources. For instance, both general education teachers and special education teachers participated in interviews. I also considered the information gathered from interviews when reviewing general education lesson plans.

I digitally recorded and transcribed the interviews in order to analyze themes related to the research questions. In order to increase accuracy, I used member checking, wherein I asked participants to review the transcript of their interview. After the interviews were transcribed I gave them to the teachers so that they could review the content to ensure that the answers were recorded accurately. I addressed quality and accuracy through the use of objective descriptions during the interview and in the recording of field notes (Bogdan & Biklen, 2007).

I analyzed interviews based on the use of consistent protocols across participants; I asked additional follow-up questions to clarify original responses. Two teachers were asked to participate in follow-up interviews to further clarify their original responses. They were both asked the same follow-up question. I analyzed general education lesson plans based on the use of a consistent protocol. The use of a consistent semistructured interview protocol and document review protocol served to increase the quality of the research because it allowed me to locate themes in a more consistent manner.

Conclusion

In this case study, I interviewed middle school teachers regarding their experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. Participants were protected, as outlined by the Walden Institutional Review

Board guidelines, including informed consent, protection from harm, and confidentiality (Walden, 2014). I reviewed lesson plans in order to gain an understanding of the areas of instructional focus. Interviews and lesson plans were coded to analyze themes and categories related to teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities.

Participant's names were changed to pseudonyms and all identifying data are secured in a locked cabinet in my office. I addressed quality and accuracy by using triangulation of data, consistent interview and document review protocols, member checks, objective field notes, and reflective field notes. I followed all IRB guidelines and attempted to be as objective as possible in order to achieve results that are of high quality and accuracy.

This case study provided insight into the experiences and perceptions of middle school teachers regarding self-regulation skill instruction for students with disabilities. I used these results to design a project that was based on my understanding of the teachers in the local setting. I based the project for this study on the specific needs of the local middle school teachers, including providing information about the assessment of self-regulation skills, the motivational and self-efficacy benefits of teaching self-regulation skills, and how to teach self-regulation skills during core academic instruction.

Section 3: The Project

Introduction

The importance of teaching self-regulation skills has been studied for several decades (Zimmerman, 1986). Existing research indicates that self-regulation skills can be taught and that these skills have a significant positive correlation with high academic achievement and positive community outcomes (Jahromi et al., 2013; Regan & Martin, 2013). Interestingly, when students are better able to self-regulate, they are more likely to have higher achievement scores (Caughy et al., 2013; Gawrilow et al., 2014; Van Beek et al., 2014). However, there is a documented gap between research and practice because few teachers actually engage in explicitly teaching self-regulation skills (Ursache et al., 2012; von Suchodoletz et al., 2013).

Based on the results of this case study, teachers confirmed that they believed that self-regulation skills would be beneficial to students with disabilities; however, they did not share a common understanding of self-regulation skills. They were primarily concerned with increasing student motivation and finding time to teach these skills. This professional development project was designed to address the concerns of local middle school teachers related to understanding self-regulation skills and teaching those skills within the time constraints of the existing curriculum.

Rationale

This study was initiated because of lack of knowledge regarding whether or not teachers were providing middle school students with disabilities instruction in self-regulation skills. If it is unknown whether or not skills are being taught, it is difficult to

provide guidance as to how to improve the teaching of those skills. Documenting and analyzing the experiences and perceptions of middle school teachers regarding teaching self-regulation skills was an important step in understanding how to best support the education of adolescents with disabilities. Understanding the experiences and perceptions of teachers can help administrators address the stated needs for more specific information about the needs of students with disabilities. Professional development related to the motivational and self-efficacy benefits of teaching self-regulation skills and incorporating self-regulation skill instruction in the context of the existing curriculum may improve teachers' abilities to support the skills of students with disabilities in the general education setting.

Summary and Recommendations for Administrators

In the local middle school, teachers reported concerns regarding the information they received about their students with disabilities. Administrators will be provided with a summary handout of the research results, consisting of a summary of teacher responses along with recommendations for providing more specific self-regulation assessment information during the psychoevaluation process and on each student's IEP. Those recommendations will include incorporating self-regulation assessment during the psychoeducation evaluation process, increased focus on self-regulation skills during professional development, and greater focus on specific IEP accommodations.

With the use of the Aspire program, special education teachers now have more access to specific self-regulation information (GADOE, 2011). By combining the information from the Aspire program with self-regulation assessment during the

psychoeducational evaluation process, the special education teachers will have more specific information to include in each student's IEP. Providing administrators with the results of this study and the stated recommendations will begin to address this concern. With the understanding that administrative support is paramount in educational settings, this middle school can move forward in providing more specific information about the needs of students with disabilities and more explicit instruction in self-regulation skills for adolescents with disabilities.

Rationale for Professional Development

Common understanding of self-regulation, self-efficacy, and motivation. While all teachers were able to describe ways that they taught self-regulation skills to their students with disabilities, the teachers in the local middle school did not have a common understanding of self-regulation skills. They also did not seem to understand the link between motivation and self-efficacy. Professional development that is focused on developing a common definition, including the impact of self-efficacy on motivation through teaching self-regulation skills, can help teachers begin to consistently teach self-regulation skills to their students with disabilities (Hofferber & Wilde, 2014; Urhane, 2015).

Incorporating self-regulation instruction into daily practice. Given that teachers consistently talked about the time constraints they faced in teaching missing basic skills, organization skills, and core content knowledge, there is a need for professional development that allows teachers to explore how to incorporate self-regulation strategies into daily classroom instruction. Based on the teachers' stated

concerns with not having enough time to teach self-regulation skills, a professional development module was developed to provide opportunities for teachers to practice incorporating self-regulation skills into core academic subjects, rather than focusing on the isolated instruction of self-regulation strategies (Perry, Brenner, & MacPherson, 2015; Peters-Burton, Cleary, & Forman, 2015).

Project Goals and Description

The project for this study was based on the specific needs of the local middle school teachers, including a common definition of self-regulation skills, an understanding of the link between motivation and self-efficacy, and information on how to incorporate self-regulation skills during core academic instruction. Please refer to Appendix A for the specific project details, including planned activities, PowerPoints, and the evaluation survey. The goals for the project were as follows:

1. Develop a common language regarding self-regulation and self-efficacy

2. Increase teachers' knowledge of strategies to increase motivation by focusing on their students' self-efficacy

3. Increase teachers' knowledge of strategies to teach self-regulation skills during core academic instruction

4. Engage in collaborative, inquiry-based learning experiences

During the first session, I will describe the process of collaborative, inquiry-based professional development and the expectations for participation. Next, I will provide information about self-regulation skills and the research that points to the benefits of these skills, specifically for increasing the motivation and achievement of adolescents

with disabilities. I will use a PowerPoint presentation to show the highlights of previous research studies. Teachers will be encouraged to engage in discussion focused on developing a common understanding of self-regulation. They will also be guided to engage in discussion regarding their experiences with teaching any of the highlighted self-regulation skills. After this discussion, teachers will be asked to observe their own teaching during the upcoming week, specifically looking for instances in which they incorporate self-regulation skill instruction.

The second professional development session will begin with time for teachers to reflect on their teaching of self-regulation skills over the previous week. I will encourage teachers to collaboratively discuss what they believe went well and what they think they need to focus on. Next, a PowerPoint presentation will be used to provide research-based strategies to increase self-efficacy and motivation, specifically during the forethought phase. I will model these skills for the teachers and then guide them toward practicing teaching these skills to a partner. After teachers have an understanding of several strategies that can be used during the forethought phase, I will encourage them to discuss their ideas for teaching these skills within their existing schedules. Next, I will guide them to develop their own inquiry for the upcoming week. Teachers will discuss their plans for teaching one self-selected self-regulation skill. Between the second and third sessions, teachers will be expected to teach their selected self-regulation skill, then begin to self-reflect on the process and outcome.

The third professional development session will continue the collaborative, inquiry-based exploration of how teachers can incorporate self-regulation skill instruction

into their daily practice. This session will begin with time for teachers to reflect on their teaching of one specific self-regulation skill over the previous week. I will encourage teachers to collaboratively discuss what they believe went well and their plans for modifying their future instruction. Next, a PowerPoint presentation will be used to provide research-based strategies to increase self-efficacy and motivation, specifically during the reflection phase. I will model these skills for the teachers, then guide them toward practice in teaching these skills to a partner. After teachers have an understanding of several strategies that can be used during the reflection phase, I will encourage them to discuss their ideas for teaching these skills within their existing schedules. Next, I will guide them to develop their own inquiry for the upcoming week. Teachers will discuss their plans for teaching one self-selected self-regulation skill. Between the third and fourth sessions, teachers will be expected to teach their selected self-regulation skill, then begin to self-reflect on the process and outcome.

During the fourth session, I will guide teachers to reflect on the previous week. I will encourage teachers to collaboratively discuss what they believe went well and their plans for modifying their future instruction. Next, I will guide teachers to discuss their thoughts about teaching self-regulation skills to increase student self-efficacy and whether or not they plan to continue exploring ways to incorporate self-regulation skill instruction. At the conclusion of the fourth session, teachers will be asked to complete an anonymous survey to evaluate the effectiveness of the professional development modules. This evaluation survey will be used to assess whether or not the goals of this professional development were attained.

Review of the Literature

The literature review that follows is divided into three sections. In the first section, I review the recent literature related to the assessment of self-regulation skills. This first section includes current trends in self-regulation assessment in light of how psychoeducational evaluations can be more helpful to teachers when motivation and self-regulation information is included. In the second section, I review current research related to professional development that is focused on self-regulated learning, specifically regarding the importance of teachers' self-regulation skills and the process of collaborative, inquiry-based professional development. In the third section, I review the link between motivation and self-efficacy with an emphasis on the strategies teachers can use to help students increase their self-efficacy. Analysis of the current research in these areas was important in developing a research-based project for this doctoral study.

Assessment of Self-Regulation Skills

School psychologists are responsible for conducting psychoeducational evaluations of students who are suspected of having disabilities. Most school psychologists evaluate students' cognitive, academic, and behavioral characteristics; however, Cleary (2011) found that teachers "reported motivation and self-regulation assessment data to be significantly more useful than the cognitive ability/academic skill report for enhancing their skills across multiple roles, such as developing instructional plans and enhancing the quality of school-based team meetings" (p. 80). When school psychologists incorporate motivation and self-regulation information into their psychoeducational reports, either through rating scales or microanalytic assessment

protocols, teachers receive information about a wider array of skills that their students may need support in developing.

There are many different ways to assess self-regulation skills, including the use of rating scales and microanalytic assessments (Chen, Cleary, & Lui, 2015; Cleary, 2011; McCardle & Hadwin, 2015). Each of these methods of assessment has strengths and limitations. Historically, self-report rating scales have been the most widely used form of self-regulation assessment (Chen et al., 2015). Over the past few years, the research literature has shifted toward incorporating more contextualized forms of self-regulation assessment, specifically the microanalytic assessment protocol (Butler & Schnellert, 2015). For the purpose of this study, I outline the strengths and limitations in regard to how these assessments can be incorporated into the psychoeducational evaluation process and provide beneficial information to teachers.

Self-regulation rating scales. Self-report rating scales are the most widely used method of assessing self-regulation skills in students (Chen et al., 2015). There are a variety of self-report rating scales that are available for use by school psychologists, teachers, and researchers, including the Motivated Strategies for Learning Questionnaire (MSLQ), the Effective Lifelong Learning Inventory (ELLI), and the Learning and Study Strategies Inventory (LASSI), among others (Cleary, Callan, & Zimmerman, 2012). These self-report rating scales can provide information about students' abilities in a variety of areas of self-regulation, including goal setting, planning, strategy selection, self-reflection, and self-efficacy.

While self-report rating scales can provide insight into students' perceptions of their self-regulation skills, they are decontextualized and retrospective (Cleary, 2011; Cleary et al., 2012). When students are asked to think about how they have performed on academic tasks in the past, they may not provide an entirely accurate assessment of their own skills. Research has shown that student reports do not often correlate with the reports of adults and may not accurately predict outcomes (Chen et al., 2015). In order to combat this potential limitation, researchers have developed parent and teacher rating scales.

Research has demonstrated the importance of including the perceptions of an adult in providing a more comprehensive understanding of the motivation and self-regulation skills of students (Chen et al., 2015; Cleary et al., 2012). Including the perceptions of teachers provides an external view of students' motivation and self-regulation skills in the school setting, while the perceptions of parents provide a view of students' motivation and self-regulation skills across a variety of domains. When school psychologists and teachers have a more comprehensive understanding of the skills of students, they are able to better plan for appropriate interventions and supports.

While self-report rating scales are limited by the fact that they are retrospective, decontextualized perceptions, these limitations can be partially addressed through the use of complementary adult rating scales. Providing a variety of perspectives on students' motivation and self-regulation skills can increase the predictive validity of these rating scales (Chen et al., 2015). Even with a variety of perspectives, researchers are still concerned that rating scales do not provide an assessment of motivation and self-regulation in an authentic task that is happening in real time (Butler & Schnellert, 2015).

Microanalytic assessments. According to Butler and Schnellert (2015), the assessment of self-regulation skills should include "two coupled assessments—a self-report tool, and a performance based assessment—to create a multidimensional self-regulated learning profile for each student" (p. 97). This is consistent with the views of other researchers who have stressed the importance of including self-reports and task-specific, authentic assessments of motivation and self-regulation (Cleary et al., 2012; McCardle & Hadwin, 2015). When combining these two forms of self-regulation assessment, school psychologists can gain valuable information that teachers can use to support the education of their students with disabilities.

Microanalytic assessment can best be understood as a process for measuring "target behaviors, cognition, or affective processes as they occur in real time across authentic contexts" (Cleary et al., 2012, p. 4). As such, these assessments happen before, during, and after a specific task. In order to evaluate motivation and self-regulation through microanalytic assessment, evaluators need to present a clearly defined task that includes a beginning, middle, and end. It is important for the task to be clearly defined because the specific questions that are asked relate to each phase of the self-regulated learning cycle: forethought, performance, and reflection (Cleary et al., 2012). Asking questions during each phase of the self-regulated learning cycle allows evaluators to measure motivation and self-regulation processes as they are occurring during an authentic task.

Several studies have highlighted the types of questions that are typically asked during each phase of the self-regulated learning cycle. During the forethought phase,

students can be asked about whether or not they have a goal for the task, how they plan to achieve that goal, and what their thoughts are about the task (Cleary et al., 2012). The purpose of these questions is to elicit student feedback about their use of self-regulation strategies before beginning a task. During the performance phase, students can be asked about how they feel they are progressing toward their goal and how their selected strategies are working (Cleary et al., 2012). These performance phase questions can prompt students to talk about their use of self-monitoring while they are in the process of completing a task. During the reflection phase, students can be asked whether or not they achieved their goal for the task, if they were satisfied with their performance, their perceived reasons for success or failure, and what they plan to do on similar future tasks (Cleary et al., 2012). The purpose of these reflection questions is to elicit students' perceptions of the reasons for their performance and their plan to adapt their strategies in the future. When used in combination, the microanalytic questions from the three phases of the self-regulated learning cycle can provide a wealth of information about student motivation and self-regulation skills.

There have been a few research studies that included aspects of all three phase of self-regulated learning; however, most studies focused on microanalytic assessment of the reflection phase (Cleary et al., 2012). McCardle and Hadwin (2015) used a self-reflection protocol that consisted of weekly self-reflection and planning sessions. They analyzed the content of students' weekly self-reflections and found an increase in self-regulation skills over time. In another study, researchers found that reflection phase questions were more highly correlated with final course grades than self-report measures

(Cleary et al., 2012). The emphasis on reflection phase questions is significant because of the cyclical nature of self-regulated learning. Students' perceptions of the reasons for their performance and plans for future changes can impact their self-efficacy and success with future similar tasks (Cleary et al., 2012).

Although microanalytic assessments of motivation and self-regulation have been shown to provide valuable insight to teachers and have high predictive validity, they are still rarely used by school psychologists (Cleary & Zimmerman, 2006; Butler & Schnellert, 2015). One reason for this is that school psychologists are not usually trained to use microanalytic assessments during graduate school. Once in the field, there is limited professional development on microanalytic assessment that is specific to school psychologists (Cleary & Zimmerman, 2006). Without additional information about the importance of assessing motivation and self-regulation skills, school psychologists will not be aware of the need for these assessments and will not incorporate them into their psychoeducational evaluations. As a part of the project for this doctoral study, I will recommend that rating scales and microanalytic assessment protocols be used during the psychoeducational evaluation process. I also used the concept of microanalytic assessment to develop the discussion questions for the professional development project.

Professional Development for Self-Regulated Learning

When conducting the literature review related to professional development for self-regulation, two primary areas of focus emerged. One line of research focused on the relationship between teachers' self-regulation skills and whether or not they teach those skills to their students. The other line of research focused on the use of collaborative,

inquiry-based professional development. Both of these concepts were important in the conceptualization of the professional development modules for this doctoral study.

The importance of teachers' self-regulation skills. The ideas that teachers hold about the process of learning and their thoughts about their own self-efficacy greatly impact their willingness and ability to teach self-regulation skills (Michalsky, 2012; Vandevelde et al., 2012). Professional development that is designed with these variables in mind can positively affect the teaching of self-regulation skills. Considering that the teachers in the local middle school believed that self-regulation skills would be beneficial for students with disabilities, they may have positive attitudes about incorporating these teaching practices into their daily routines; however, it is likely that some teachers may hold unproductive attitudes about the process of learning or their own self-efficacy.

The self-regulation skills of teachers can influence their willingness and ability to teach self-regulation skills to students. Teachers who do not possess adequate self-regulation skills have been shown to be less likely to teach these skills to their students (Buzza & Allinotte, 2013). When teachers are provided with appropriate scaffolding during professional development, they are able to realize increases in their own self-regulation skills (Peeters, De Backer, Reina, Kindekens, Buffel, & Lombaerts, 2014). The project for this doctoral study followed the research-based recommendations that professional development regarding self-regulation be structured to support the development of self-regulation skills in teachers through collaborative cycles of inquiry (Perry et al., 2015; van Aalderen-Smeets & van Der Molen, 2015).

The development of self-regulation skills can be conceptualized like other developmental processes where people progress through levels of mastery until they are able to independently utilize self-regulation skills. Based on the original research by Zimmerman (2000), several researchers have studied the process of developing self-regulation skills (Bembenutty, White, & Velez, 2015; English & Kitsantas, 2013). According to these researchers, scaffolding can be a valuable tool to help support the development of self-regulation skills. When initially learning self-regulation skills, learners require a great amount of scaffolding and support. As learners develop greater self-regulation skills the support provided by the teacher is gradually reduced.

Self-regulation skill development progresses through four levels: observation, emulation, self-control, and self-regulation (Zimmerman, 2000). The observation level of self-regulation skill development can be supported by providing learners with consistent modeling of self-regulation skills. This can include examples of teachers thinking aloud, modeling strategies, and providing explanations (Peters-Burton et al., 2015). Teachers can support the emulation level of self-regulation skill development by providing targeted practice sessions where learners can experiment with using the skills and receive feedback from the teacher. This type of active learning during professional development has been recognized as an effective practice (van den Bergh, Ros, & Beijaard, 2014). During the self-control level, learners receive less guidance from teachers, but can receive feedback and assistance. Once learners reach the self-regulation level they are expected to be able to independently apply self-regulation skills to different settings (Peters-Burton et al., 2015).

Collaborative, inquiry-based professional development. Collaborative, inquiry-based professional development is consistent with the basic concept of self-regulated learning, which teaches students to "use feedback loops to more thoughtfully plan and execute behaviors, evaluate the success of those plans and actions, and modify future behaviors on the basis of that evaluation" (Reddy, Newman, & Verdesco, 2015, p. 28). When teachers are able to receive self-regulation focused scaffolding during the process of finding solutions to their own concerns, they are more likely to experience increases in their own self-regulation development and find success in teaching self-regulation skills to their students.

Several researchers have been able to successfully scaffold the development of self-regulation skills through collaborative, inquiry-based professional development (Bembenutty et al., 2015; Perry et al., 2015; Peters-Burton et al., 2015; van Aalderen-Smeets & van Der Molen, 2015). According to Perry et al. (2015), cycles of inquiry are very similar to the feedback cycles used during self-regulation. During this type of professional development, teachers are guided to select a focus or concern, develop a goal, create a plan, enact the plan, then reflect on the outcome (Perry et al., 2015).

Through collaborative, inquiry-based professional development, teachers in the local middle school can be guided to self-reflect on their understanding of self-regulation skills, the impact of self-efficacy on motivation, and the ways that they can incorporate self-regulation skills into their daily practice. When teachers are asked to self-reflect on their own beliefs and attitudes, they are more likely to implement new teaching practices (Hur, Buettner, & Jeon, 2015; van Aalderen-Smeets & van Der Molen, 2015). This self-

reflection can serve the purpose of assisting teachers in becoming aware of some of their implicit beliefs that guide the practice of teaching. Additionally, the collaborative discussion may support teachers in developing a common language around the concepts of self-regulation and self-efficacy (Peeters et al., 2014).

Self-Efficacy and Motivation

When considering the variety of self-regulation skills that could be taught, the teachers in the local middle school seemed to have the most difficulty with providing effective strategies to increase student motivation and self-efficacy. Effective professional development is grounded in the local context and the needs of the local teachers (Askell-Williams, Lawson, & Skrzypiec, 2012). When professional development is relevant to the teachers, they are more likely to make changes to their teaching practices (van Aalderen-Smeets & van Der Molen, 2015). While it may be beneficial to provide training regarding all aspects of self-regulation, the current study will focus on how teachers can increase student motivation and self-efficacy through teaching specific self-regulation skills.

Given that the teachers in the current study consistently reported difficulty with student motivation and that teachers select interventions based on their thoughts about the reasons for underachievement, it is important to understand motivation through the lens of self-efficacy. When teachers believe that students lack intrinsic motivation, then they are likely to choose motivational strategies (Hofferber & Wilde, 2014; Urhahne, 2015). When students lack motivation because of low self-efficacy, then motivational strategies will not be very effective in increasing student motivation (Montroy et al., 2014). If

teachers understand that motivation is partially based on their students' evaluation of their ability to successfully complete a task, they may be more likely to select interventions that focus on increasing self-efficacy.

Several studies have highlighted the relationship between learning difficulties and low self-efficacy as a predictor of decreased student motivation (Butler & Schnellert, 2015; Holtzheuser & McNamara, 2014). Butler and Schneller (2015) found that when students continually struggle to learn and repeatedly experience failure, they may not actively engage in the learning process. This lack of engagement may be perceived by teachers as low student motivation. According to Holtzheuser and McNamara (2014), students who have experienced failure develop lower self-efficacy and, as a result, exhibit lower motivation. Based on this research, it is clear that one factor in the motivation of struggling learners is their lower self-efficacy that results from their history of difficulties with learning. Considering that self-efficacy plays a central role in self-regulated learning, it is vital that teachers understand the relationship between these factors.

Self-efficacy and the self-regulated learning cycle. The cycle of self-regulated learning presented by Zimmerman (2002) places an emphasis on self-efficacy during the forethought phase and the reflection phase. During the forethought phase, students assess their ability to successfully complete a task, based on their understanding of the task and their previous experience with similar tasks (Zimmerman, 2002). During the reflection phase, students consider their performance on the task in light of their self-assessment of their ability to complete the task and make self-judgments about the reasons for their success or failure. According to Holtzheuser and McNamara (2014), it is "the role of

educators to transform the self-efficacy of struggling readers from one of poor self-efficacy, to one of perceived competence and motivation" (p. 9). Teachers can implement specific strategies to support the self-efficacy of students during the forethought phase and the reflection phase.

Strategies for the forethought phase. Supporting student self-efficacy during the forethought phase is vitally important for increasing student motivation. When students are able to determine what is needed to complete a task, review their previous successes with similar tasks, and set appropriate goals, students generally experience higher self-efficacy leading to higher motivation (Holtzheuser & McNamara, 2014). Teachers can use questioning techniques in combination with modeling strategies to help students identify their thoughts and plans before engaging in a task. Through collaborative, inquiry-based professional development, teachers can explore ways to support student self-efficacy during the forethought phase.

Researchers have identified two distinct processes that students engage in during the forethought phase: task analysis and motivational beliefs (English & Kitsantas, 2013). Often, students with disabilities do not accurately assess the requirements of a task. Teachers may observe this as students not getting started on their work, not seeking necessary help, or becoming frustrated with the amount of effort required. Teachers can support students during task analysis by helping them understand what is involved in completing the task and how much effort they will need to use in completing the task (Holtzheuser & McNamara, 2014).

Once students accurately analyze the task, they can be guided to develop supportive motivational beliefs. Students' motivational beliefs are generally based on their expectations of success and interest in the task (English & Kitsantas, 2013). Many students with disabilities do not expect to experience success due to a history of failure. Teachers can support these expectations by guiding students in a discussion of their previous success with similar tasks. They can also help students find an aspect of the task that aligns with their interests. When students expect to experience success and are interested in the task, they may experience increased motivation to use self-regulation skills to complete the task (Holtzheuser & McNamara, 2014).

In addition to helping students analyze the task and develop supportive motivational beliefs, teachers can also assist students in setting appropriate goals. The teachers in this case study consistently reported that learning goals are dictated by the curriculum. This indicates that they generally think of distal, outcome goals, rather than process goals. Researchers have found that proximal, process-related, specific goals can be used to increase students' self-efficacy (Reddy et al., 2015). Goals that are proximal refer to things that can be achieved within a short period of time, such as a class period, day, or week. In contrast to proximal goals, distal goals refer to things that can be achieved over a longer period of time. Process-related goals are concerned with the activities that learners engage in to complete a task. For instance, students can set a goal for the amount of time they will study each day (Reddy et al., 2015). When students are guided to set proximal, process-related goals they can experience success with achieving

goals. This success is reported to lead to increases in self-efficacy and motivation (Holtzheuser & McNamara, 2014).

    Strategies for the reflection phase. Self-regulated learning is a cyclical process whereby students use their reflection at the end of a learning task to modify their thinking and actions during the forethought phase of the next learning task. As such, strategies to support self-efficacy during the forethought phase are valuable in increasing student self-efficacy and motivation for future learning tasks. When students are able to attribute outcomes to their effort and use of effective strategies, they are more likely to demonstrate increased motivation (Cleary et al., 2012). Teachers can support students during the reflection phase by focusing their feedback on their students' effort and strategy use, outcome attributions, and future plans. Collaborative, inquiry-based professional development can support teachers in exploring strategies that they can use during the reflection phase.

    According to Holtzheuser & McNamara (2014), "learners may attribute their success or failures in reaching their goals to internal factors such as effort or lack thereof, or external factors such as luck or deficiencies in the task or teacher" (p.12). Teachers can support their students' self-efficacy by praising their effort and use of strategies, even when their goal was not achieved. Once students begin to link outcomes and effort, they can be encouraged to think of learning as a process of experimenting with different learning strategies rather than focusing on external factors.

    Teachers can also encourage students to use their self-reflections to plan for upcoming tasks. One way to do this is to have students consider their current

performance in light of the strategies they used (Belski & Belski, 2014). When students

can reflect on the success of specific strategies, they will be more likely to plan for and

use different strategies. Several teachers in the current study talked about incorporating

discussion about strategy selection into the feedback they provide to students. Through

collaborative, inquiry-based professional development teachers can be guided to explore

other ways they can use feedback to support their students' self-efficacy and motivation.

Summary of Literature Review

There is consensus in the literature that self-regulation skills should be assessed in

order to provide useful information to teachers during the psychoeducational evaluation

process. The evaluation of these skills can be accomplished by using rating scales and

microanalytic assessments. Once teachers are aware of the self-regulation skills of their

students, they are better able to plan their students' interventions and supports. School

psychologists can provide this information to teachers by modifying the existing

psychoeducational evaluation process.

Professional development focused on self-regulation has been shown to be

effective when teachers are able to build their own self-regulation skills while learning

about how to teach self-regulation skills. In order to accomplish this goal, professional

development should incorporate scaffolding of self-regulated learning. Collaborative,

inquiry-based professional development is one research-based method for teaching self-

regulation through modeling, practice, and reflection.

Research has shown self-efficacy to be the link between motivation and self-

regulation. Students with disabilities, who have a history of learning difficulties and

failure, usually have low self-efficacy, which negatively affects their motivation. There are several research-based strategies for increasing student self-efficacy during the forethought and reflection phases of the self-regulated learning cycle. When teachers are able to help students increase their self-efficacy, student motivation increases.

Based on the current case study and a review of the literature, collaborative, inquiry-based professional development appeared to be the most appropriate method for addressing the needs of teachers in the local setting. Through a collaborative, inquiry-based professional development, teachers can be supported in exploring a common understanding of self-regulation skills, ways to increase self-efficacy and motivation, and strategies for incorporating self-regulation skill instruction into their daily practice.

Project Description

Potential Resources and Existing Supports

In order to successfully implement the proposed project in the local middle school it will be important to consider and utilize existing resources and supports. Administrators at this school are interested in supporting teachers in realizing achievement gains for adolescents with disabilities. In fact, closing the achievement gap between students with and without disabilities is a longstanding part of their schoolwide improvement plan. Since the administrators are already focused on improving the achievement of students with disabilities, the proposed project should be well received.

The middle school has ongoing weekly professional development meetings. The professional development is led by the Learning Support Specialist. Since this time is already scheduled into the teachers' weekly plans, it would make sense to incorporate

training related to self-regulation skills during this time. Given that teachers reported needing more ways to increase student motivation and incorporate self-regulation skills into the existing curriculum, they may be receptive to participating in this collaborative, inquiry-based professional development.

Another potential resource present in this school is that there a number of veteran teachers from both general education and special education. Utilizing the vast experiences of these teachers can support the teaching of self-regulation skills through the use of collaborative discussions. If the effective practices of these teachers can be realized and used as models for other teachers, there is the possibility of having some teachers serve as mentors or guides for other teachers through collaborative, inquiry-based professional development.

Potential Barriers

The project for this study was designed to support the needs expressed by the participating teachers. Considering that the entire population of teachers at this middle school was not interviewed, it is possible that some teachers may not feel that they need to learn about self-regulation skills for adolescents with disabilities. Additionally, some teachers may not be engaged in teaching students with disabilities. In order to overcome these potential barriers, the beginning of the professional development will review the importance of self-regulation skill instruction for all students, including adolescents with disabilities.

Another potential barrier is that teachers may feel additional pressures beyond the need to address the self-regulation skills of adolescents with disabilities. Currently,

teachers in this middle school are faced with requirements that all students master common core standards. Teachers are being assessed based on whether or not their students show growth toward achieving these standards. With these pressures, teachers may feel that their time is best spent providing content-specific instruction rather than teaching specific self-regulation skills. In order to overcome this potential barrier, this collaborative, inquiry-based professional development will focus on how teachers can enhance their core content instruction by incorporating self-regulation skill instruction into their daily practice.

Implementation Timetable

The first step in implementing this project will be to discuss the research with the administrators. During this discussion, I will provide administrators with a handout that includes a summary of the research results and recommendations. I will also include highlights from the literature review which support the teaching of self-regulation skills as an effective strategy to increase the motivation and achievement of students with disabilities. Once administrators understand the foundation and results of the study, we will discuss the most appropriate way to adjust the professional development plan to reflect the need for additional focus on teaching self-regulation skills to adolescents with disabilities within the existing curriculum.

Next, I will work with the Learning Support Specialist to plan the specific dates and times to implement the professional development modules. By planning in conjunction with the Learning Support Specialist, I will make sure to provide the training

during a time that is most appropriate for the structure and flow of the overall

professional development plan.

Once the dates and times are scheduled, I will work with the Learning Support

Specialist to determine who will deliver which parts of the professional development

module. I will volunteer to deliver the instruction; however, it is possible that the

Learning Support Specialist would prefer to deliver the instruction. We will

collaboratively determine how the information can be delivered in a way that will be

most beneficial to the teachers at this middle school.

The professional development modules will be taught during four consecutive

professional development sessions. These sessions are currently conducted on a weekly

basis. General education and special education teachers attend professional development

in small groups during their planning periods. Working with teachers in small groups will

increase the likelihood that teachers will attend to the information and ask questions

when they are unsure of what they are expected to do.

Roles and Responsibilities

In order for this project to be implemented successfully, there will need to be

collaborative effort between the administrators, the Learning Support Specialist, the

teachers, and myself. Each party will play an important part in making sure that the

project is carefully planned, professionally delivered, and fully supported.

The administrators will be responsible for attending the initial meeting where the

research results and importance of this project will be discussed. It is essential to have

their full support for the project so that they can relay the importance of these needs to

their teachers. Additionally, administrators will be responsible for making sure that teachers attend each professional development session. Occasionally teachers miss the weekly professional development sessions for various reasons; however, the administrators can express that they are required to attend these four specific sessions.

The Learning Support Specialist will work in collaboration with me to determine the most appropriate dates and times for delivering the professional development sessions. Additionally, we will collaboratively determine who will deliver the professional development. Finally, the Learning Support Specialist will be responsible for making sure that the setting for professional development is has a computer and projector for the PowerPoint presentations.

The teachers will be responsible for attending the four professional development sessions, teaching a self-selected self-regulation skill between sessions, and responding to the evaluation survey. Teachers will also be expected to participate in the professional development by engaging in discussion and sharing their experiences with teaching self-regulation skills.

My responsibility in this project consists of creating the summary handout for administrators, sharing the results with the administrators, creating the professional development modules, and collaboratively scheduling the delivery of the professional development modules. I will volunteer to deliver the professional development modules; however, this decision will be made by myself and the Learning Support Specialist. At the conclusion of the project, I will collect the evaluation survey results and share those with the administrators and Learning Support Specialist.

Project Evaluation Plan

During the fourth professional development session, teachers will be asked to complete an anonymous evaluation survey. The survey was designed to assess whether or not the goals of the professional development were attained. Several Likert scale questions will ask teachers to reflect on their understanding of self-regulation skills and their practice of teaching self-regulation skills. Open-ended questions will also be included to encourage teachers to provide general comments regarding their impressions of the effectiveness of the professional development, as well as any other supports they think they need to provide students with explicit instruction in self-regulation skills. The survey is included with the professional development project in Appendix A.

The survey results will be analyzed to determine if teachers found the professional development to be effective. Using an anonymous survey should encourage teachers to honestly express their thoughts about the strengths and weaknesses of the professional development modules. The survey results will be shared with the administrators and the Learning Support Specialist. Any additional supports that teachers request will be considered and addressed through a collaborative effort between the administrators, the Learning Support Specialist, and myself.

Project Implications

Explicit instruction in self-regulation skills has been shown to increase the academic achievement of students with disabilities (Jahromi et al., 2013; Regan & Martin, 2013). Research also indicates that teachers rarely provide explicit instruction in self-regulation skills (Urasche et al., 2012; von Suchodoletz et al., 2013). The data

collected during this study confirm that local middle school teachers did not express consistently teaching self-regulation skills to students with disabilities. This project was designed to address the needs reported by local middle school teachers.

The teachers in this study revealed that they generally did not have a common understanding of self-regulation skills, needed more strategies to increase self-efficacy and motivation, and were unsure of how to incorporate these skills into their daily practice. Professional development will help teachers understand how self-regulation skills are beneficial to the academic achievement and motivation of students with disabilities. This knowledge may lead to teachers' increased motivation to explicitly teach these skills. In order to address the teachers' concerns about having enough time to teach self-regulation skills, they will be taught how to incorporate the specific skills into their core academic instruction.

With the increase in focus on teaching self-regulation skills, teachers may see an increase in the academic skills and motivation of their students with disabilities. Increasing self-regulation skills for students with disabilities should help teachers move closer to closing the achievement gap between students with disabilities and students without disabilities. Closing this achievement gap will be beneficial to students, teachers, and administrators in the local school district because the school's performance is judged by the achievement of all students.

Positive social change in the local middle school may also be applicable to other schools because researchers have demonstrated that teachers do not consistently provide explicit instruction in self-regulation skills (Urasche et al., 2012; von Suchodoletz et al.,

2013). That indicates that this is not only a problem in the local school district. Teachers in many schools could benefit from further professional development regarding the importance of self-regulation skills for increasing academic achievement and motivation and strategies to incorporate these skills into their daily practice. Thus, this professional development may be relevant to other schools.

Conclusion

In Section 3, I presented the process I followed to create the project for this study. The research conducted for this study addressed the problem of the school not assessing whether or not teachers were teaching self-regulation skills by exploring teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. I used the data from this study and current research to design a professional development module for teachers at the local middle school. Teachers in the local middle school indicated that they needed additional information about the specific needs of their students with disabilities, strategies to incorporate self-regulation skills in the existing curriculum, and techniques to increase motivation and self-efficacy. The collaborative, inquiry-based professional development sessions incorporated the use of PowerPoint, small group discussions, and an evaluation survey. Given that research has indicated that teachers do not often provide explicit instruction in self-regulation skills, this project may be applicable to other schools.

Section 4: Reflections and Conclusions

Introduction

Teachers are currently required to instruct students with a wide range of abilities in the general education setting. They are also required to make sure that all students will master the state standards, as measured by standardized assessments. Students with disabilities in the local middle school have consistently shown lower achievement on standardized state assessments than their nondisabled peers. Previous research indicates that students with disabilities can be taught self-regulation skills and that these skills positively affect achievement scores (Jahromi et al., 2013; Regan & Martin, 2013).

By gathering data from interviews and lesson plans, this project study addressed the problem of lacking assessment of whether or not local middle school teachers were explicitly teaching self-regulation skills to adolescents with disabilities. Based on the results of this study, I determined that teachers needed more information about the needs of their students with disabilities and professional development in self-regulation skill instruction. I used the results of this study to develop an informational handout for administrators and a professional development module for teachers.

In this section, I describe my reflections regarding the strengths and limitations of the project along with my recommendations for alternative approaches to the identified problem. Next, I outline my personal growth as a scholar and practitioner. Finally, I discuss the project in terms of the potential for social change and recommendations for future research.

Project Strengths and Limitations

The primary strength of this project was that it was grounded in the literature review and dictated by the needs reported by teachers in the local middle school. By reviewing the literature, I discovered that self-regulation skills are important for adolescents with disabilities, that many students are lacking these skills, that they can be taught, and that teachers rarely explicitly teach self-regulation skills. I based the interview protocol and document review protocol on the findings of the initial literature review. Thus, I was able to use the collected data to design a research-based professional development module to address the identified problem in the local setting.

Another strength of the professional development that was created for this project was that it followed recommendations for quality professional development (Buzza & Allinotte, 2013; Michalsky, 2012, Perry et al., 2015). The modules were planned with an emphasis on moving from research supporting the need for teaching self-regulation skills to how to teach these specific skills in daily practice. With an initial emphasis on the importance of teaching self-regulation skills, teachers will be more likely to understand the value of these skills for increasing academic achievement.

Considering that many teachers reported feeling pressure to accomplish other goals, the fact that this professional development emphasizes ways to incorporate self-regulation skill instruction into core academic subjects should make it more likely that teachers will engage in teaching these skills. Thus, I based the professional development modules on my understanding of the experiences and perceptions of middle school teachers in the local setting.

Teachers are facing increasing demands from state and local requirements to make sure that all students master all standards. With these demands, one limitation of this project may be that the teachers feel so much pressure to meet these other demands that they are not able to put much effort into teaching self-regulation skills. While this professional development was designed to provide support through specific skill instruction, time for small group discussions, and tools to assess self-regulation skills, some teachers may still feel that the challenge of making these changes is too great. Thus, without enough felt support, teachers may not be able to implement changes related to teaching self-regulation skills.

Recommendations for Alternative Approaches

Although this professional development provides support for teachers with regard to teaching self-regulation skills, it is always possible that there are other or better ways to approach the problem. One possible alternative approach would be to find teachers in the local middle school who are already teaching self-regulation skills and encourage them to act as local experts. Other teachers could benefit from observing their peers teaching these skills to local students. The local expert could also lead discussions and act as a mentor for other teachers.

Another alternative approach could be to provide the professional development in an online, independent learning format. With recent advances in technology, teachers could read the modules, watch related videos, and interact with their peers on a discussion board. This may be an option for providing follow-up professional development related to self-regulation skills. With increasing planning and teaching

demands, teachers would likely appreciate the option of completing professional

development when their schedule permits.

Scholarship, Project Development and Evaluation, and Leadership and Change

As I reflect back over my doctoral journey, I am overwhelmed with the amount of

personal growth that I have experienced. The initial courses were helpful in laying the

groundwork regarding the theories of adult education and the general process of research.

While those were important to my development, nothing could have prepared me for the

process of actually conceptualizing and completing the work for this doctoral study.

Scholarship

I believe that I will always be a lifelong learner. I enjoy researching various topics

and sharing what I have learned with others. Completing research for the doctoral study

taught me that true scholarship is focused and purposeful. Originally, I researched many

different topics related to the topic I finally selected. Those topics included special

education, inclusion, self-regulation skills, self-determination, academic achievement of

students with disabilities, and professional development, to name just a few.

Once I started reviewing research studies, I found myself traveling down various

paths and lines of inquiry. After several revisions to my prospectus and proposal, I finally

understood that I needed to narrow my focus. Once I was able to narrow my focus, the

proposal, data collection, and subsequent project development proceeded much more

smoothly.

I now understand that scholarly research must be narrowly defined in order to

clearly investigate a specific problem. If there are too many topics, the research will not

lead to a clear problem statement, research question, or data collection method. I am thankful that my professors and committee were patient enough to help me learn this valuable lesson.

Project Development and Evaluation

As a full-time school psychologist and part-time college professor, I engage in project development and evaluation on a regular basis. I have developed several projects over the past few years, including professional development modules for local teachers and course outlines for my college students. These projects have usually been based on my assumptions regarding the problem that needed to be addressed. After completing this doctoral project study, I will approach project development differently.

I began my doctoral study in higher education and adult learning because I was required to provide professional development to teachers and did not feel prepared to successfully teach adults. The courses I have taken at Walden have provided me with the foundational skills needed to teach adults. Further, the completion of this doctoral study project gave me experience with creating a research-based project that was designed to solve a problem that I identified in the local setting.

The development of this project has taught me the value of thoroughly assessing a problem before developing a solution. I learned that there are specific steps that need to be considered when developing any project. First, there needs to be sufficient planning. The planning stage includes gathering the appropriate data, consulting current research, and considering the needs of the setting and stakeholders. The second stage of project

development involves implementing the project. Finally, the outcomes of the project should be evaluated.

Leadership and Change

Through this doctoral study project, I learned that leadership is a skill that can be continually developed. I had to use leadership skills when talking with the administrator to request permission to conduct the study. During this conversation, I was able to explain and defend the identified problem and justify the need for research in the local setting. Previously, I did not have to request permission to conduct research. Typically, administrators would approach me with an identified problem and request that I provide professional development to address it. This situation required a different type of leadership skill because I was the one who identified a problem that I thought needed to be explored and addressed.

While completing this doctoral study project, I learned that I am somewhat uncomfortable with change. I previously thought that I was the exception to this generality, in that I typically embrace change if I can understand the reasons for it. I experienced many changes during this process because my committee chair changed twice. With the change of the committee chair, the second member also changed. Each time a new committee was formed, there were different opinions and perspectives regarding the focus of my study. I was initially frustrated with this process because of the continual need to change my proposal. Eventually, I embraced the fact that there were going to be many changes to my original ideas about the problem in the local setting and my plan to conduct the research. I now understand that change is part of the process of

growth. With each change, my doctoral study became more refined and resulted in more focused research efforts.

Change is often difficult in the educational setting. In this professional development project, teachers will be asked to consider changing their practices to more systematically and consistently incorporate instruction in self-regulation skills for students with disabilities. I will apply what I have experienced through this doctoral project study to my work with teachers. Personally experiencing the discomfort of change has helped me to understand why many of the teachers with whom I work are resistant to change and how I can assist them with working through their resistance.

Reflection on Importance of the Work

From the beginning of this doctoral study, my ultimate goal was to explore ways to increase the academic achievement of students with disabilities. For the purposes of this research, I chose to focus on the explicit teaching of self-regulation skills, which is one area of education where researchers have documented positive impacts on the achievement of students with disabilities.

This doctoral study is important because there is an identified gap between the achievement of students with disabilities and their nondisabled peers. Additionally, teachers in the local setting have reported that they need additional support in order to teach self-regulation skills to students with disabilities. Completing this doctoral study project allowed me to explore the important issue of whether or not teachers were teaching self-regulation skills to adolescents with disabilities. Additionally, it provided a

framework for creating professional development modules driven by the teachers' expressed needs.

Personally, this doctoral study process was important in that it taught me how to conduct research, develop a project, and evaluate the outcome of that project. I will use these skills as I continue to work with schools and teachers.

Implications, Applications, and Directions for Future Research

Considering that instruction in self-regulation skills has been shown to increase the academic achievement of students with disabilities (Jahromi et al., 2013; Regan & Martin, 2013) and that teachers rarely provide explicit instruction in self-regulation skills (Urasche et al., 2012; von Suchodoletz et al., 2013), this project study has the potential to positively impact the education of middle school students with disabilities. The results of the current study confirmed that local teachers rarely explicitly taught self-regulation skills to students with disabilities. Based on the review of research and the data collected during this study, I designed a project to address the professional development needs reported by local middle school teachers.

Professional development for teachers is important because it can help teachers understand how self-regulation skills are beneficial to the academic achievement and motivation of students with disabilities. With this knowledge, teachers may be motivated to explicitly teach these skills. By increasing self-regulation skills for students with disabilities, teachers may be able to move closer to closing the achievement gap between students with disabilities and students without disabilities. Closing this achievement gap

is important because the school's performance is judged by the achievement of all students.

The research and resulting professional development may be beneficial to additional schools. Other teachers could likely benefit from further professional development on the importance of self-regulation skills and strategies to incorporate these skills into their daily practice. Thus, this professional development may be an important part of the effort to improve outcomes for students with disabilities in additional schools across the country.

In the future, researchers could continue to refine alternative assessments of motivation and self-regulation skills. Currently, there are general recommendations from the research; however, there is not a specific protocol for conducting microanalytic assessment of motivation and self-regulation during the psychoeducational evaluation process. With more structured protocols, school psychologists may be more likely to incorporate this type of assessment.

Future research should also continue to address the effectiveness of professional development that is focused on self-regulation skills. A few studies have explored this, but more information is needed regarding the outcome of these professional development experiences in terms of whether or not teachers increase their instruction of these skills and whether that instruction translates into higher self-regulation skills for their students. More research regarding professional development that is focused on how special education teachers can teach self-regulation skills may also provide another avenue for meeting the needs of students with disabilities.

Conclusion

Increasing teachers' knowledge of and skill with teaching self-regulation skills to students with disabilities can assist teachers in meeting the needs of their students. Teachers in the local setting expressed a need for more information about the needs of their students with disabilities. When teachers are provided with specific assessment information about the self-regulation skills of their students, they will be able to plan more effective interventions and supports for these students. The teachers also expressed an interest in teaching self-regulation skills, specifically those skills related to increasing self-efficacy and motivation. Teachers who explicitly teach self-regulation skills in combination with core academic content can positively affect the motivation and academic achievement of their students, especially students with disabilities.

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Appendix A: Professional Development Project

Self-Efficacy: The Link Between Motivation and Self-Regulation

Purpose: This collaborative, inquiry-based professional development was created to address the needs of local middle school teachers regarding ways to increase student motivation and incorporate self-regulation skill instruction during daily practice. The purpose of this professional development is to provide teachers with research-based information about self-regulation skills, practice in teaching these skills, and time to reflect on and discuss how they can successfully teach these skills.

Learning Outcomes: The learning outcomes were developed based on the expressed needs of local middle school teachers. This professional development is designed to accomplish the following learning outcomes:
1. Develop a common language regarding self-regulation and self-efficacy.
2. Increase teacher knowledge of strategies to increase motivation by focusing on their students' self-efficacy.
3. Increase teacher knowledge of strategies to teach self-regulation skills during core academic instruction.
4. Engage in collaborative, inquiry-based learning experiences.

Target Audience: This professional development was created to address the needs of general and special education middle school teachers.

Timeline: This professional development will consist of four, 45-minute sessions. Teachers will meet once a week during their planning period.

Format: This professional development will be structured as a collaborative, inquiry-based learning experience. Teachers will receive didactic instruction supported by PowerPoints. They will also engage in collaborative discussions and cycles of inquiry.

Evaluation: Teachers will be expected to complete an anonymous evaluation survey at the end of the last professional development session.

Session One

Topic: The first session will focus on the collaborative, inquiry-based professional development model and the research behind self-regulation skills, specifically focused on increasing self-efficacy and motivation for all students, including students with disabilities.

Discussion: How do you define self-regulation skills? What experiences have you had with teaching self-regulation skills?

Agenda for Session One:

| Task	Materials	Activity	Time Allotted	Outcomes
Describe the process of collaborative, inquiry-based professional development	PowerPoint	Didactic instruction	5 minutes	Teachers will understand their role in the collaborative, inquiry based professional development model
Present research related to the benefits of self-regulation skills	PowerPoint	Didactic instruction	15 minutes	Teachers will understand that self-regulation skills are beneficial for students with and without disabilities
Discussion focused on developing a common understanding of self-regulation	None	Collaborative Discussion	10 minutes	Teachers will collectively define self-regulation
Discussion focused on teacher experiences with teaching self-regulation skills	None	Collaborative Discussion	10 minutes	Teachers will collectively explore how they are currently teaching self-regulation skills within their daily practice
Direct teachers to observe their teaching over the upcoming week to look for instances where they incorporate self-regulation skill instruction	None	Didactic instruction	5 minutes	Teachers will begin to inquire about their own teaching practices related to teaching self-regulation skills

PowerPoint for Session One:

Collaborative, Inquiry-based PD

- Collaborative, inquiry-based professional development is consistent with the basic concept of self-regulated learning, which teaches students to "use feedback loops to more thoughtfully plan and execute behaviors, evaluate the success of those plans and actions, and modify future behaviors on the basis of that evaluation" (Reddy, Newman, & Verdesco, 2015, p. 28).

- During this type of professional development, teachers are guided to select a focus or concern, develop a goal, create a plan, enact the plan, then reflect on the outcome (Perry, Brenner, & MacPherson, 2015).

Self-Regulated Learning

- Zimmerman (2000) proposed that a cyclical stage model of self-regulated learning mediates the actual use of self-regulated learning strategies. These three stages are the forethought phase, performance phase, and self-reflection phase.

- Self-regulation skill development progresses through four levels: observation, emulation, self-control, and self-regulation (Zimmerman, 2000).

- Cho, Wehmeyer, and Kingston (2011) found that teachers did not spend a significant amount of time teaching self-determination and self-regulation skills because the teachers believed that their students had more urgent needs, specifically regarding basic reading and math skills.

Self-Regulated Learning Cycle
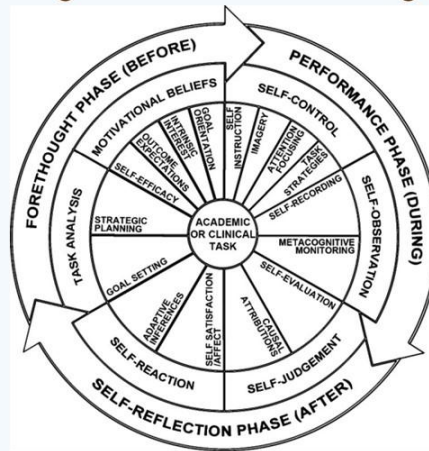
Benefits of Teaching Self-Regulation Skills

- Students who are explicitly taught self-regulation skills show an increase in their academic self-efficacy and achievement (Zimmerman et al., 2011).

- When students are better able to self-regulate, they are more likely to have higher achievement scores (Caughy, Mills, Owen, & Hurst, 2013; Gawrilow et. al., 2014; Van Beek, deJong, Minnaert, & Wubbles, 2014).

Benefits of Self-Regulation Skills for Students with Disabilities

- Students with disabilities lack self-regulation skills (Carter et al., 2006; Kelly & Shogren, 2014).

- Students with low self-regulation skills have demonstrated lower class and test grades compared to students with higher self-regulation skills, despite no difference in reading level (Bohlmann & Downer, 2016; Gouin, 2013; Shih, Zheng, Yuan, & Ford, 2015).

Common Understanding of Self-Regulation

- There are many different theories and definitions of self-regulation (Butler & Schnellert, 2015).

- Based on what you have learned so far, discuss your definition of self-regulation.

Experiences Teaching Self-Regulation Skills

- What experiences have you had with teaching self-regulation skills?

Homework

- Observe your own teaching during the upcoming week

- Focus on instances where you incorporate self-regulation skill instruction

Session Two

Topic: The second session will focus on research-based strategies to increase self-efficacy and motivation, specifically during the forethought phase of the self-regulated learning cycle.

Discussion: Which self-regulation skills did you teach over the previous week? What went well and what do you think you need to focus on next? How can you incorporate these strategies for increasing self-efficacy during your existing schedule? What do you plan to do during the upcoming week?

Agenda for Session Two:

Task	Materials	Activity	Time Allotted	Outcomes
Discussion focused on reflection regarding the self-regulation skills they taught during the previous week	None	Collaborative Discussion	10 minutes	Teachers will collectively reflect on the skills they taught, what went well, and what they think they need to focus on next
Present research related to strategies to increase self-efficacy during the forethought phase	PowerPoint	Didactic instruction	10 minutes	Teachers will gain information about a variety of strategies that can be used
Model strategies to increase self-efficacy during the forethought phase	None	Modeling	5 minutes	Teachers will observe strategies to increase self-efficacy
Practice strategies to increase self-efficacy during the forethought phase	None	Guided practice	10 minutes	Teachers will gain confidence in using strategies to increase self-efficacy
Discussion focused on how to incorporate these skills within the existing schedule	None	Collaborative Discussion	5 minutes	Teachers will collectively explore how they can teach self-regulation skills within their daily practice
Direct teachers to select one self-regulation skill to teach during the upcoming week that is focused on increasing self-efficacy during the forethought phase of the self-regulated learning cycle	None	Didactic instruction	5 minutes	Teachers will engage in inquiry-based learning regarding their own teaching practices related to teaching self-regulation skills

PowerPoint for Session Two:

Session Two

- Your experiences during the previous week
- Link between self-efficacy and motivation
- Forethought phase of self-regulation
- Increasing self-efficacy during the forethought phase
- Practice strategies during the forethought phase
- Ideas for teaching these skills during the forethought phase
- Your homework for the upcoming week

Reflection on Last Week

- Which self-regulation skills did you teach over the previous week?
- What went well?
- What do you think you need to focus on next?

Link Between Self-Efficacy and Motivation

- During the forethought phase of self-regulated learning, students make decisions about their ability to complete a task (Zimmerman, 2002).

- Students who believe that they can successfully complete a task are more likely to be motivated to engage in the task and use self-regulation skills to complete the task (Bandura, 1997).

- Teachers are in a unique position to help students develop self-efficacy because they can talk to students about the reasons for their performance, help them experience success, and show them how others have been successful with similar tasks (Bandura, 1997).

Forethought Phase of Self-Regulation

- During the forethought phase, students assess their ability to successfully complete a task, based on their understanding of the task and their previous experience with similar tasks (Zimmerman, 2002).

Increasing Self-Efficacy During the Forethought Phase of Self-Regulation

- When students are able to determine what is needed to complete a task, review their previous successes with similar tasks, and set appropriate goals, students generally experience higher self-efficacy leading to higher motivation (Holtzheuser & McNamara, 2014).

Teaching These Skills

- How can you incorporate these strategies for increasing self-efficacy during your existing schedule?

Homework

- Select one self-regulation skill to teach during the upcoming week that is focused on increasing self-efficacy during the forethought phase

- Discuss your plan with a partner

Session Three

Topic: The third session will focus on research-based strategies to increase self-efficacy and motivation, specifically during the reflection phase of the self-regulated learning cycle.

Discussion: Which self-regulation skill did you teach over the previous week? What went well and how do you think you might modify your teaching in the future? How can you incorporate these strategies for increasing self-efficacy during your existing schedule? What do you plan to do during the upcoming week?

Agenda for Session Three:

Task	Materials	Activity	Time Allotted	Outcomes
Discussion focused on reflection regarding the self-regulation skills they taught during the previous week	None	Collaborative Discussion	10 minutes	Teachers will collectively reflect on the skills they taught, what went well, and how they think they might modify their teaching in the future
Present research related to strategies to increase self-efficacy during the reflection phase	PowerPoint	Didactic instruction	10 minutes	Teachers will gain information about a variety of strategies that can be used
Model strategies to increase self-efficacy during the reflection phase	None	Modeling	5 minutes	Teachers will observe strategies to increase self-efficacy
Practice strategies to increase self-efficacy during the reflection phase	None	Guided practice	10 minutes	Teachers will gain confidence in strategies to increase self-efficacy
Discussion focused on how to incorporate these skills within the existing schedule	None	Collaborative Discussion	5 minutes	Teachers will collectively explore how they can teach self-regulation skills within their daily practice
Direct teachers to select one self-regulation skill to teach upcoming week that is focused on increasing self-efficacy during the reflection phase of the self-regulated learning cycle	None	Didactic instruction	5 minutes	Teachers will engage in inquiry-based learning regarding their own teaching practices related to teaching self-regulation skills

PowerPoint for Session Three:

Session Three

- Your experiences teaching self-regulation skills during the previous week
- Reflection phase of self-regulation
- Increasing self-efficacy during the reflection phase
- Practice strategies during the reflection phase
- Your ideas for teaching these skills during the reflection phase
- Your homework for the upcoming week

Reflection on Last Week

- Which self-regulation skills did you teach over the previous week?
- What went well?
- How do you think you might modify your teaching in the future?

Reflection Phase of Self-Regulation

- During the reflection phase, students consider their performance on the task in light of their self-assessment of their ability to complete the task and make self-judgments about the reasons for their success or failure (Zimmerman, 2002).

Increasing Self-Efficacy During the Reflection Phase of Self-Regulation

- When students are able to attribute outcomes to their effort and use of effective strategies, they are more likely to demonstrate increased motivation (Cleary, Callan, & Zimmerman, 2012).

Teaching These Skills

- How can you incorporate these strategies for increasing self-efficacy during your existing schedule?

Homework

- Select one self-regulation skill to teach during the upcoming week that is focused on increasing self-efficacy during the reflection phase

- Discuss your plan with a partner

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Session Four

Topic: The fourth session will focus on self-reflection regarding teachers' experiences teaching self-regulation skills and whether or not they plan to continue exploring strategies to more consistently incorporate self-regulation skill instruction.

Discussion: Which self-regulation skill did you teach over the previous week? What went well and how do you think you might modify your teaching in the future? What do you think about your experiences teaching self-regulation skills during this professional development? Do you think you will continue to explore ways to more consistently incorporate self-regulation skill instruction?

Agenda for Session Four:

Task	Materials	Activity	Time Allotted	Outcomes
Discussion focused on reflection regarding the self-regulation skills they taught during the previous week	None	Collaborative Discussion	10 minutes	Teachers will collectively reflect on the skills they taught, what went well, and how they think they might modify their teaching in the future
Discussion focused on teachers' experiences teaching self-regulation skills during this professional development	None	Collaborative Discussion	15 minutes	Teachers will collectively reflect on their experiences teaching self-regulation skills
Discussion focused on teachers' plans to continue to explore ways to more consistently incorporate self-regulation skill instruction	None	Collaborative Discussion	10 minutes	Teachers will collectively reflect on their thoughts about teaching self-regulation skills in the future
Complete an anonymous survey to evaluate the effectiveness of this professional development	Evaluation survey	Individual work	10 minutes	Teachers will assess whether or not the goals of this professional development were attained

Evaluation Survey for Session Four:

Thank you for participating in this collaborative, inquiry-based professional development regarding increasing student motivation through teaching self-regulation skill and supporting students' self-efficacy. With a rating of 1 to 5 (1=strongly disagree, 3=neutral, and 5=strongly agree), please rate the following statements.

I was satisfied with the professional development sessions.	
I can define the terms self-regulation and self-efficacy.	
I learned new strategies to increase student motivation.	
I know how to incorporate self-regulation skill instruction during core academic instruction.	
I benefited by engaging in collaborative, inquiry-based professional development.	
I will continue to explore ways to more consistently incorporate self-regulation skill instruction.	

What was the most beneficial aspect of this professional development?

What was the least beneficial aspect of this professional development?

What additional supports, if any, do you need to more effectively teach self-regulation skills?

Appendix B: Informed Consent

You are invited to take part in a research study of middle school teachers' experiences with and perceptions of teaching self-regulation skills to adolescents with disabilities. The researcher is inviting middle school teachers of students with disabilities to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Jessica Traylor, who is a doctoral student at Walden University. You may already know the researcher as a school psychologist, but this study is separate from that role.

Background Information:
The purpose of this study is to explore what middle school teachers think about self-regulation skills and the impact that those skills have on the academic achievement of students with disabilities. Additionally, this study will help provide insight into any supports middle school teachers may need in order to consistently teach self-regulation skills to students with disabilities in the local middle school.

Procedures:
If you agree to be in this study, you will be asked to:
- Participate in a 60-minute individual interview.
- Review the transcript of your interview to check the accuracy of the researcher's recording.
- Allow the researcher to review lesson plans from the previous four weeks.

Here are some sample questions:
1. What types of obstacles do adolescents with disabilities face in middle school?
2. What do you perceive as the most important needs of adolescents with disabilities?
3. Please talk about the strategies you use to teach self-regulation skills to adolescents with disabilities. What strategies do you use to teach:
    a. student-directed learning?
    b. goal setting?
    c. self-monitoring?
    d. strategy selection?
    e. maintaining motivation?
4. Is there anything you need to more effectively teach self-regulation skills to adolescents with disabilities?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at the Lamar County School System or Walden

University will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as the stress of participating in an interview. Being in this study would not pose risk to your safety or wellbeing.

By bringing more attention to the concepts of self-regulation for students with disabilities, this study could enlighten more specific study of the explicit teaching of self-regulation skills. With more focus on teaching self-regulation skills, students with disabilities could have better adult outcomes including higher reading levels and graduation rates.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by being stored in a locked file cabinet in the researcher's office. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone at _____ or email at _____. If you want to talk privately about your rights as a participant, you can call Dr. _____. She is the Walden University representative who can discuss this with you. Her phone number is _____. Walden University's approval number for this study is **IRB will enter approval number here** and it expires on **IRB will enter expiration date.**

The researcher will give you a copy of this form to keep.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant

Date of consent

Participant's Signature

Researcher's Signature

Appendix C: Interview Guide for Teachers

Individual interview guide

Introduction:

      I would like to talk with you about your experiences in working with adolescents with disabilities. Before we start, I want to remind you that your participation is completely voluntary, and that the comments that are made will be kept confidential. If any questions make you uncomfortable or you do not want to answer for any reason please tell me. If for any reason you wish to discontinue your participation in the interview at any time, you may do so. May I have your permission to collect an audio recording of the interview and take notes on your comments? Do you have any questions before we begin?

One-on-one interview session questions for teachers:

1. Please tell me about your experiences teaching adolescents with disabilities.

2. What types of obstacles do adolescents with disabilities face in middle school?

3. What do you perceive as the most important needs of adolescents with disabilities?

4. How do you feel about the way students are or are not prepared for the independent learning and responsibility demands of middle school?

5. How would you define and describe self-regulation skills?

6. Do you feel that self-regulation skills could or could not benefit adolescents with disabilities? Please explain.

7. Please talk about the strategies you use to teach self-regulation skills to adolescents with disabilities. What strategies do you use to teach:

   a. student-directed learning?

   b. goal setting?

   c. self-monitoring?

    d.   strategy selection?

    e.   maintaining motivation?

8. Is there anything you need to more effectively teach self-regulation skills to adolescents with disabilities? If so, what do you think would be helpful?

9. Is there anything else you would like to add?

Appendix D: Document Review Protocol

Document Review Protocol

Pseudonym of teacher:

Subject taught:

This chart will be used to guide the review of lesson plans. I will use the categories outlined below to look for the use of planning for specific types of strategy instruction during different phases of the self-regulated learning cycle.

Strategies/Phases of the SRL Cycle	Forethought Phase -goal setting -strategic planning -self-efficacy -outcome expectations -intrinsic interest/value -learning goal orientation	Performance Phase -imagery -self-instruction -attention focusing -task strategies -self-recording -self-experimentation	Self-Reflection Phase -self-evaluation -causal attribution -self-satisfaction/affect -adaptive/defensive
Cognitive -elaboration -organization -problem solving			
Metacognitive -reasoning -strategy knowledge -strategy benefits			
Motivation -causal attribution -action control -feedback			

Reflections:

Themes: