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A Multiple-Case Study: Motivating Students With Disabilities in Personalized Literacy Instruction

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A MULTIPLE-CASE STUDY:
MOTIVATING STUDENTS WITH DISABILITIES IN PERSONALIZED LITERACY
INSTRUCTION

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Dedication

I dedicate my dissertation to my parents, Kathy and Jerry Squires, and my husband, Jeff Kozelski. I may not have taken on this challenge without their support. My parents have shown me love, curiosity, persistence, and generosity throughout my life. I aspire to live up to the models they have provided me. Jeff gave me stability throughout this challenging process. Through tears, frustration, and stress, he provided me with endless caffeine and open ears. This work is a testament to their unwavering support.

Abstract

Adolescents often experience a decline in motivation, yet support for basic psychological needs can prevent such a decline. Individuals with disabilities face particularly high motivational obstacles, placing them at the center of this action research study. This study took place within a special education classroom during one school year. The intervention unfolded over the course of the year, using personalized learning to support students' basic psychological needs and provide sources of self-efficacy. The findings lend support to previous studies, indicating literacy motivation can be promoted through implementation of a needs-supportive personalized learning intervention that builds upon both self-efficacy and self-determination theories.

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Chapter One: Introduction

My passion for personalization took root several years ago in 2012 through 2014 when I had the opportunity to implement personalized learning practices with a small group of students with disabilities. Personalized learning is defined as an opportunity "to customize the learning experience for each student according to his or her unique skills, abilities, preferences, background, and experiences" (Herold, 2019). The introduction of this chapter will provide a chronological background that led up to the year of this intervention. This begins with a detailed description of one student's particularly inspiring transformation and leads up to the intervention, which began in 2021.

Jared is the first student I think about when I reflect on my career experiences because of the change in motivation I saw in him through a shift in our classroom dynamics. He was a student of mine in 2012 through 2014 in a special education pullout program during his fifth and sixth grade years. Jared had seen many adults come and go in his life, and I could see he needed time before he would trust me. Jared was embarrassed by his difficulties with reading and writing, and he tried to hide them from others. If reading or writing became too frustrating for him, he refused help and left the room. I could see we needed time to experience literacy in an enjoyable, risk-free way. I also noticed that Jared was the first student out of the door each day for dismissal, while the other students lingered slowly, said goodbye to one another, or walked together.

There were about seven other students of various grade levels and capabilities in the classroom at the same time, so my first priority was to build a sense of community

and make them have shared ownership of our space. With some time, it began to feel like family, but I could see from Jared's continued reluctance with me that he was not quite convinced. I decided to introduce the group to a new personalized work system. As I met with a small group or an individual for a conference, everyone else would work on their individual work plan that tied to their individualized education program (IEP). I explained the students' IEP goals to them individually and how their work plan connected to their goals. When I explained the connection between IEP goals and work plan to Jared, he looked upward at me from under furrowed eyebrows and asked skeptically, "So the work will help me get better at things that are hard for me?" I could see he was understanding the connection of the work to himself and was willing to try. This was a big step in the right direction.

During our work time, everyone was working on different tasks independently and I was not available to assist. I knew it would take practice for my students to become familiar with the routine, and indeed, some students did get lost. To my surprise, Jared jumped in, almost like an extension of myself. When he noticed a confused friend, he and I shared nonverbal eye contact, a smile, and off he went to kindly assist his peer in getting back on track. This was a significant turning point for our group.

With our community intact, my students willingly took on more academic challenges. I posed a classroom design project for the students in which they would create a persuasive proposal and floor plan for how to design the classroom. They eagerly began planning and requested they all create one joint project, as opposed to working individually. Much to my surprise, Jared requested the lead writer role. His confidence and willingness to take a risk in writing had grown considerably, and he proved to have

great skill in persuasive writing. The group members worked alongside each other to craft a persuasive proposal. They were so invested in the proposal that they decided to take it to the principal. When new bookshelves and bean bags arrived, we were all elated! I sat back and watched them make the space their own. As the year came to a close in 2014, I reflected on the growth of the group and was eager to continue our work in the upcoming year. However, I also had opportunities on the horizon that took me away from my students.

As Every Student Succeeds Act (ESSA) was signed into law in 2015, school districts across the country, including my own, obtained funding to implement ESSA's new personalized learning initiative. I saw this as an opportunity to learn more about what I love and to spread it to others. In the summer of 2014, I took a position as an instructional coach and my district partnered with the Reinventing Schools Coalition and Dr. Robert Marzano to implement competency-based education in a small selection of Title I schools. I remained in the position until the close of the grant in 2017, at which point I was eager to get back into teaching once again.

In 2017, I landed a special education teaching position in a Montessori school where I was eager to start up my personalized work system once again. At the beginning of the year, I received the typical pallet of instructional materials along with guidelines from my special education department. The intensity and frequency of demands requiring that I follow the instruction materials with fidelity and without deviating from the script increased, and there was an implied consequence attached to following each page of the instructional materials to the letter. Without instructional autonomy, my students and I

were hindered from engaging in personalized learning experiences. Instead, we marched on to the beat of scripted curriculum.

I remember feeling particularly troubled with the changes in some of my students' behaviors during our writing instruction. For instance, Krystal was a social butterfly, always radiating with excitement when the group discussed stories. However, when the writing workbook opened, all of Krystal's vibrant personality vanished as if a switch had been flipped. With the stroke of a hand, Krystal and the group chanted toneless responses in unison.

As for achievement, the content seemed to be so simple that they were not taking information with them to their more authentic writing experiences. For instance, they flew through the simple content in the workbook materials and assessments. They filled out their workbooks, studiously placing periods at the end of every line. However, when they wrote for other purposes with other teachers, they were still having difficulty with basic conventions. I was having trouble identifying motivational or academic benefits in the scripted materials. Finding little joy in delivering robotic instruction and watching my students disengage, I felt compelled to find a place where I could have instructional autonomy without fear of repercussions.

In August 2021, a public charter school offered me a special education teaching position with sixth and seventh grade students. I used a similar approach as I had with Jared's group, working to build community first. Adolescence can be a fragile period, fraught with social pressures. This makes building community a delicate process, but they learned to trust each other and me. Just like with Jared, I knew a foundation of trust meant I could present more challenges.

At the time of this study in the 2021-22 school year, students' literacy skills and confidence were further impacted by their time in virtual schooling. They had shown more frustration with literacy tasks than I had seen before. At the mere mention of writing, eyes rolled, heads went down, and hoods went up. They did not simply dislike writing; they loathed it. One student became anxious and asked repeatedly how many sentences he must write. Another student got so frustrated with spelling he erased holes in his paper. Developing effective strategies to untangle some of these issues takes time and trust.

This presented a problem in need of urgent attention. My students felt incapable and unmotivated in the face of literacy tasks. In the setting where I worked at the time of this study, I had the gift of instructional autonomy, which allowed my students and I to engage in personalized experiences. My students were numb to the idea of standard literacy tasks, but they came alive at the mention of topics of interest, like video games, anime, sports, and travel. Although they were vastly different from one another in their capabilities and identities, their interests presented a motivational launching pad.

Problem of Practice

The problem of this action research study centered around adolescent students with disabilities and their experiences with self-efficacy and motivation. The prepackaged reading and writing curriculum used in the Department of Exceptional Children at the research site was teacher-directed and exerted control over the content, pace, and path for all students. This type of instruction did not provide students with optimal challenge, valued or personally meaningful activities, tasks encouraging active engagement and conversation, or opportunities for control in the learning task and

environment. This instruction did not support students' basic needs, creating more extrinsically motivated behaviors.

Demographics of the district and school situated the problem of practice in context. The district in which I worked at the time of this study was one of the largest in my state, with just under 50,000 students and just under 6,000 faculty and staff members. Teacher ethnicity was disproportionately White at 84%; 13% of teachers African American, 1% were Hispanic, 1% were Asian, and 1% were unknown. Student demographics have not mirrored those of adults, which could inhibit cultural responsiveness and perpetuate norms of marginalization (Nguyen et al., 2019). Students were represented as 48% White, 38% African American, 10% Hispanic, 3% other. One percent of the student demographics were unaccounted for in reporting (Charleston County School District, n.d.). In the district, approximately 5,300 students have received special education services for identified disabilities. Additionally, 430 teachers were employed as special educators for the local school district, 110 of whom worked in the middle and high school settings (personal communication, September 15, 2020). In the school where I worked, there were approximately 230 students in grades six through twelve, 29 (12.6%) of whom were eligible for special education services. Students were represented as 45.2% White, 46.6% African American, 5.3% Hispanic, 2.4% two or more races, and 0.5% American Indian or Alaska Native. The student–teacher ratio was 11:1, which was lower than average for the state. I worked with 11 sixth and seventh grade students in special education; the majority of whom were legally identified with learning disabilities affecting their literacy skills. Four of 5 sixth graders and two of 6 seventh

grade students received services outside the general education classroom to address disabilities that impacted them in literacy-related activities.

Research Questions

Using a qualitative methodological design and multiple-case study, I explored and gained findings to the following research questions:

Research Question: How do adolescents with disabilities experience motivation for literacy, as defined by the psychological needs of self-determination theory, in the context of a personalized learning special education classroom?

Subquestion: How do adolescents with disabilities demonstrate self-efficacy for literacy in the context of a personalized learning special education classroom?

Purpose

The purpose of this multiple-case qualitative study was to explore each student's degree of self-efficacy (Bandura, 1997) and motivation (Deci & Ryan, 2017) over the course of a needs-supportive, personalized literacy event (Street, 2003). The intervention design was supported by Fisher and Frey's (2013) gradual release of responsibility framework and, to weave in needs-supportive strategies, referenced design elements of personalized learning (Basham et al., 2016; Kallio & Halverson, 2020; South Carolina Department of Education's Office of Personalized Learning [SCDEOPL], 2021). This study specifically focused on adolescents with disabilities who required intervention to support their basic psychological needs, and their beliefs of self-efficacy, so they could experience motivation in literacy.

Personalized learning is supportive of students' psychological needs because of its student-centered practices (Alamri et al., 2020). These environments aim to shift from

teacher-directed to teacher-facilitated and student-centered instruction. Student interests and needs are placed center stage in the instructional design and delivery, thereby amplifying the role of the student in their own learning path.

Theoretical Framework

Deci and Ryan's (2017) self-determination theory and Bandura's (1997) construct of self-efficacy were used as a theoretical framework for this action research study. Self-determination theory (SDT) provides a way of understanding human motivation and aspects that affect it. Deci and Ryan (2012) studied how motivation was impacted by environmental factors and proposed that a negative impact on any one of the basic psychological needs of autonomy, relatedness, or competence, was detrimental to the rest. For example, the many moving parts in a car all require constant attention and maintenance because of how they work together as a whole. One neglected part would impact the entire system, much like the system of self-determination as Deci and Ryan proposed. Autonomy is referred to as having a sense of control over one's own choices, though this differs from doing completely as one pleases. Autonomy is increased with the provision of choices, clear explanations, and the acknowledgment of feelings. Relatedness refers to a sense of belonging in a community, which is enhanced by inclusive environments, respect, and a sense of security. Competence is the extent to which an individual has the capacity for and recognition of success. This is increased with appropriate challenges and positive feedback. As each of these moving parts or psychological needs are enhanced, and values and goals become integrated and assimilated in the individual, the individual becomes closer to intrinsic motivation. However, if any or all of these psychological needs are thwarted, the individual will be

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extrinsically motivated or even unmotivated (2012). The associated concepts of SDT provide a hypothetical explanation of concepts in my problem of practice, which centers on feelings of incapability and lack of motivation, and why these challenges may occur.

Self-efficacy, a construct of Bandura's (1997) social cognitive theory, "is beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Some studies of self-efficacy have confused it with other similar constructs, such as self-concept and self-esteem, and some have also included vague study questions that led to invalid findings (Bandura, 1997; Zimmerman, 2000). Thus, Bandura (1997) stated it is imperative for studies to include specific phrasing in questions and for researchers to have a firm understanding of self-efficacy. Self-efficacy may pave a path for other motivational factors. The four sources of self-efficacy include enactive attainment, vicarious experience, verbal persuasion, and physiological states.

There is an important distinction between self-efficacy and the construct of competence in SDT. Self-efficacy is an individual's beliefs of capability they bring to a task (Bandura, 1997). On the other hand, competence is the actual ability with the task and understanding the steps required to achieve the task (Deci & Ryan, 2017). According to Bandura (1997):

> People need a sense of self-efficacy to apply what they know consistently, persistently, and skillfully, especially when things are not going well and deficient performances carry negative consequences. Given appropriate subskills, successful performance is often as much a matter of perceived efficacy as of capability. (p. 223)

Therefore, an individual's prior experiences and perception of their ability play a significant role in determining their performance success. The amount of self-efficacy students bring to a situation may act as an entry point in determining appropriate needs-supportive interventions. Self-determination theory and self-efficacy were strongly connected to my problem of practice, whereby students' self-efficacy and motivation were negatively impacted by instructional programs that thwarted basic psychological needs.

Positionality

Positionality plays a role in all types of research. Researchers must continuously question their relationship with participants and the research setting to mine for hidden truths and bias. My previous experiences as a special education teacher and personalized learning coach led me to this research interest. Creswell and Creswell (2018) explained researchers cannot ignore the beliefs and worldviews they bring to a study, as they would undoubtedly influence each step of the action research process. Herr and Anderson (2015) further explained it is important to continuously question one's positionality and beliefs to "avoid the blind spots that come with unexamined beliefs" (p. 35). I leaned heavily upon critical theory, socioculturalism, and constructivist theories. Therefore, my thoughts on fidelity and directives versus autonomy and choice were part of my core values that have influenced my feelings throughout this research. I acknowledged beliefs I brought to the study have played a role in each decision. As such, I remained vigilant and reflective to ensure my opinions were not forced upon my participants and that I left participants to provide direction to the study.

I am an adult, White female, I did not experience significant negative impacts of the COVID-19 global pandemic, and I have had no personal difficulty with academics. Therefore, my identities situate me in dominant groups of society, whereas my students' identities have likely occupied marginalized groups. In fact, all of them must sort through living at complex intersections of multiple nondominant groups. Furthermore, I have somewhat different interests from my students, some of whom love gaming and professional athletics; therefore, I was positioned as an outsider in relation to my student–participants. I was a special educator studying in my workplace; therefore, in relation to my setting and practice in education, my positionality was that of an insider. These roles ebbed and flowed as the action research process progressed (Herr & Anderson, 2015).

I was aware of and put mechanisms in place that checked for bias, including remaining cognizant of my role as teacher–researcher as both insider and outsider. I used reflective and descriptive notes of observations to discover patterns of bias throughout my research. Power dynamics and insider–outsider roles could skew the interpretation of data, but I used member checking to verify an accurate reflection of data.

I surrounded myself with critical friends and a diverse group of participants and kept an ongoing reflective journal. I also employed data collection and analysis methods that assisted in filtering for bias, such as descriptive observation with rich description.

Brief Overview of Methodology

Rationale for Action Research

Action research is inherently "constructivist, situational, practical, systematic, and cyclical" (Efron & Ravid, 2013, p. 7). Action research is a cyclical process that often follows a sequence of planning, taking action, observing, and reflecting. It is often

conducted as cycles in cycles, some taking longer than others. A key difference between action research and traditional research lies in the positionality of the researcher. Practitioners are "inherently subjective and directly engaged" (Efron & Ravid, 2013, p. 4) in a democratic research process. This stands in stark contrast to traditional research, where unbiased researchers seek to perform research on, rather than with, participants and then generalize findings to other settings by controlling variables in their research. Excellent findings are gained from traditional research. However, this amount of control makes traditional research dissimilar from typical educational settings (Efron & Ravid, 2013).

Many teachers are critical of the extraneous variables and external validity of research-based instructional materials and whether the effects will be generalized to their unique settings (Efron & Ravid, 2013). This was the conflict at the heart of this study, making action research more than appropriate. Those unfamiliar with action research may be unsettled by the differences between traditional research and action research. However, many layers of quality control and ethical consideration are put in place that are comparable to those found in traditional research (Efron & Ravid, 2013; Herr & Anderson, 2015).

My problem of practice lay in the challenges presented to adolescent students with disabilities that affect their acquisition of curricular literacy practices. This problem of practice was further compounded by the COVID-19 global pandemic that exacerbated challenges to aspects of motivation and self-efficacy. The mandated curriculum did not address these students' academic or psychological needs, thereby extinguishing the motivation needed to ignite their interest in learning.

This study investigated students' experiences with self-efficacy and aspects of motivation while engaged in a personalized literacy-event. Participants included students diagnosed with disabilities who received special education services at my school. The study design employed a qualitative, multiple-case study method to gather descriptions of student experiences. Using the theoretical framework cited above, an analysis of data aligned with concepts in the research questions was conducted (Creswell & Creswell, 2018).

Methodology

This action research followed a qualitative multiple-case study method. Qualitative or open-ended data probes at social conditions and feelings, and often leaves the direction of the research in the hands of participants (Creswell & Creswell, 2018). Merriam and Tisdell (2016) said, "A case study is an in-depth description and analysis of a bounded system" (p. 39) in real-life context. Each student–participant in this study was an individual case. These student–participants were selected because they were bounded by their identities as adolescents with disabilities receiving instruction in the special education classroom. Data were collected in the form of interviews, observations, artifacts, and documents with thorough notetaking and transcription. These data were gathered in alignment with research questions from each case, or individual, to identify themes that emerged across multiple individuals.

A purely qualitative approach to research can pose limitations to validity. Therefore, multiple forms and an abundance of data were gathered throughout the iterative problem-posing cycles to provide further support for and triangulation of data

(Efron & Ravid, 2013). Furthermore, the use of multiple cases, as opposed to a single case, added to the external validity of the findings (Merriam & Tisdell, 2016).

After the research design was approved by the local school district and IRB, three student–participants were recruited by volunteer and convenience sampling. I communicated first with parents of students with disabilities to provide information about the study and obtained parental permission and layered consent. For all students whose parents provided permission, I read aloud the student assent form (see Appendix A), explaining the purpose and details of the study in student-friendly language.

Each data source used in this action research study was mined for information aligned with the research questions. However, it is pertinent to note that the direction and outcome of this study was not predictable because "action research is a process rather than a product, and as such, our invitation is one of finding our way together rather than getting to a predetermined end" (Herr & Anderson, 2015, p. 155). All data sources investigated the concepts of self-efficacy, autonomy, relatedness, and competence, specifically as they related to literacy for adolescent students with disabilities.

Summary of Findings

The data in each student–participant's case provided evidence demonstrating that personalized literacy interventions provide a needs-supportive framework that support students' basic psychological needs and sense of self-efficacy. Self-efficacy was tied to students' need for autonomy. This supported Bandura's (1997) theoretical assumptions that beliefs of self-efficacy provided individuals with an increased agency over their actions, which predicted academic performance. Students who had positive experiences with needs-support throughout the intervention also experienced gains in literacy and

engagement. Needs frustration, as evidenced by one student-participant, resulted in insignificant literacy gains and a lack of engagement.

Significance

The findings in this study supported theoretical assumptions of self-determination theory (Deci & Ryan, 2017) and self-efficacy (Bandura, 1997), as well as lent support to recent research. Therefore, the implications of this study shed light on effective methods and design practices for improving instruction for adolescent students with disabilities. By shifting to student-centered practices that are supportive of students' needs and bolster self-efficacy, educators can increase students' motivation, engagement, and achievement.

The problem of practice, research questions, and purpose of this study called for using a research design that brought voice, empowerment, and action to participants. The theoretical framework laid the groundwork for building motivation in students by creating a needs-supportive environment. Just as action research shifts control to participants, allowing them to guide the process; this personalized literacy event shifted the control away from the teacher, centering students in the instructional design process.

Definitions of Terms

Amotivation—This is the state of having diminished motivation to engage, resulting from thwarted basic psychological needs (Deci & Ryan, 2017).

Autonomy—This term is an individual's experience of choice and control in one's actions (Center for Self-Determination Theory, 2021).

Competence—This term is an individual's experience of capability and mastery (Center for Self-Determination Theory, 2021).

Extrinsically Motivated Behaviors—These behaviors include behaviors done for a consequence or reward not connected to the task (Center for Self-Determination Theory, 2021).

Fidelity—This term describes the degree to which a program, such as an instructional material or textbook, is used as intended (Knight, 2019).

Gradual Release of Responsibility Framework—An instructional framework that begins with teacher directed instruction and, as the student demonstrates readiness, becomes increasingly student-led (Fisher and Frey, 2013).

Intrinsically Motivated Behaviors—These behaviors include behaviors done for the sake of internal interest or satisfaction (Center for Self-Determination Theory, 2021).

Literacy Event—Any event that involves meaningful and relevant engagement in literacy (Street, 2003).

Self-Regulation— This term is defined as, "Regulation of behavior by the self" (Deci & Ryan, 2017, p. 97).

Personalized Learning—This term describes a philosophical belief that leads to the instructional design of customized learning experiences for each learner to meet their needs, interests, and strengths.

Relatedness—This term is an individual's experience of belonging and care (Center for Self-Determination Theory, 2021).

Self-Efficacy—This term is an individual's perception of capability within a specific task (Bandura, 1997).

Self Determination Theory—Deci and Ryan's (2017) macro theory of human motivation explains the importance of support for basic psychological needs of

autonomy, competence, and relatedness in intrinsically motivated behavior, identity formation, and self-regulation.

Transactional Reading Theory—According to Rosenblatt (1985), individuals bring various background experiences and take multiple perspectives from texts when reading. Therefore, individual engage in a co-construction of the meaning from text through discussion with others.

Organization of Dissertation

Chapter Two begins by providing a comprehensive look into theories and the constructs of those theories that lay the groundwork for this study, including SDT and self-efficacy. This section is followed by situating the problem in a historical context of education policy, motivational theory development, and impacts upon motivation in the classroom. Chapter Two also focuses on providing a review of recent literature related to the problem of practice. Chapter Three delineates the research design, laying out in-depth descriptions of the steps followed to collect, analyze, and interpret data during and after the intervention. Chapter Four provides a step-by-step description of processes followed during data collection and analysis to arrive at the findings for each case, and the group. Chapter Five takes the findings and themes and interprets those into responses for each research question. These are further interpreted to provide implications for classroom practice and next steps, and to provide suggestions for further research.

Chapter Two: Literature Review

To begin this chapter, I briefly review the problem of practice and research questions, as described in Chapter One. This section is followed by a brief description of the methodology of the literature review process. I then provide a summary of the theoretical framework, based on original works of the theorists. Finally, I discuss the historical development of motivation and relevant political events, concluding with a review of recent research.

Problem of Practice

This action research study was centered around the aspects of instructional design for students with disabilities that impact their perception of ability and motivation for literacy. The local school district's Department of Exceptional Children provides students with disabilities with a mandated reading and writing program that does not provide them with (a) adequate challenge, (b) valued or personally meaningful activities, (c) tasks encouraging active engagement and conversation, or (d) opportunities for control in the learning task and environment. Including these aspects in instructional design and delivery can help support a student's basic psychological needs and build intrinsically motivated behavior. However, the absence of these aspects does the opposite, creating more extrinsically motivated behavior or the absence of motivated behaviors in students altogether.

Students with disabilities are often placed into environments with linear, scripted instruction, and with limited autonomy. Furthermore, they have to work harder to accomplish the same tasks as their peers without disabilities. Over time, these extra efforts can diminish students' self-efficacy and motivation (Bergen, 2013). Therefore, self-efficacy and autonomy are two critical aspects of motivation that feature prominently for students with disabilities. These components feed into students' overall motivation. The adolescent students in this study had disabilities that impacted their literacy performance. The district-mandated instructional materials did not grant them an opportunity to make choices in learning tasks, engage in tasks aligned with personal interests, build competencies, and gain self-efficacy. In doing so, the mandated texts have snuffed out any lingering notes of motivation my students had for tasks that already presented great challenge.

The district-mandated instructional materials paint an inaccurate picture of literacy for students, creating a barrier to self-efficacy, psychological needs, and overall motivation. Students receiving the mandated scripted lessons experience literacy as linear and granular topics, oversimplifying the complexity of literacy. Furthermore, students are not engaged with literacy for a purpose that is connected to the individual. Therefore, when faced with more authentic, multifaceted, nonlinear literacy tasks, they are unprepared and defeated.

The design of personalized instruction offers students, including those with disabilities, a promising method to design instruction for and with students, with intentionality. Personalized instruction supports students' basic needs, providing them

with voice, choice, and appropriate challenge. As such, personalized learning design elements provide a reference point for implementing needs-supportive interventions.

Using a qualitative methodological design and multiple-case study, I explored and gained findings to the following research questions:

Research Question: How do adolescents with disabilities experience motivation for literacy, as defined by the psychological needs of self-determination theory, in the context of a personalized learning special education classroom?

Subquestion: How do adolescents with disabilities demonstrate self-efficacy for literacy in the context of a personalized learning special education classroom?

Chapter Organization

This chapter begins with a description of the purpose and strategies used for the literature review process. This is followed by a thorough description of SDT and the construct of self-efficacy, both of which provided a theoretical framework for this study. To situate the problem of practice in a historical context, I provide a description of motivation theory development over time, and political events relevant to motivation. This description leads into an explanation of personalized learning and relevant motivation models that guided the intervention. The chapter concludes with a review of recent research, which highlights areas of declining adolescent motivation, the benefits of psychological needs support, and the predictive power of self-efficacy.

Literature Review Methodology

The purpose of this literature review is multifaceted. The literature review (a) communicates to the audience the current body of research on the topic, (b) establishes the importance of continuing work and how that continued work will connect and

contribute to the current body of research, and (c) leads to a logical and aligned intervention and methodology (Creswell & Creswell, 2018). The literature review "provides the context and the background about the current knowledge of the topic" (Machi & McEvoy, 2016, p. 5) and thus lays the groundwork for the research questions and intervention.

In the process of reviewing the literature, I read seminal works by Ryan, Deci, and Bandura. I accessed EBSCO, ERIC, Education Source, Research Gate, SAGE Journals, Springer Link, Taylor and Francis Journals, and Wiley Online Library to compile peer-reviewed journal articles, commentaries, and studies by Ryan, Deci, and Bandura. Then, I compiled additional peer-reviewed journal articles and studies related by a wider selection of authors. I used each article to identify additional sources of interest. All the sources were summarized and labelled with keywords that were used to map associated concepts and conduct additional database searches using those keywords. Keywords I used in searches included s*elf-determination theory, autonomy, relatedness, competence, self-efficacy, adolescence, writing, motivation*, *students with disabilities,* and *personalized learning*. After a wide search of literature, I narrowed the scope of my search to include research from 2016–2021 to obtain only those studies conducted recently. Combinations of search terms involving personalized learning, adolescence, students with disabilities, and motivation resulted in limited findings, especially related to disabilities and motivation.

Theoretical Framework

Deci and Ryan's (2017) SDT and Bandura's (1997) construct of self-efficacy were used as a theoretical framework for this action research study. First, a thorough

discussion of SDT and self-efficacy is provided, followed by a description of the connection of SDT and self-efficacy. Finally, the relationship of the theoretical framework to the problem of practice and intervention are explained.

Self-Determination Theory

Self-determination theory is a relatively new but comprehensive psychological theory concerned with social, biological, and cultural factors that positively or negatively influence basic psychological needs of autonomy, relatedness, and competence (Deci & Ryan, 2017). Self-determination theory proposes that if these psychological needs were fully supported, an individual could be intrinsically motivated and self-regulated. However, if these are not supported, the individual would become extrinsically motivated or even amotivated. Increased self-determination leads to "greater creativity, superior learning, better performance, enhanced well-being, and higher quality relationships" (Deci & Ryan, 2017, p. 17).

Deci and Ryan (2017) refer to need for autonomy as one's need to feel a sense of control over their actions and choices. Autonomy is different from independence and freedom as autonomy is connected to an understanding of one's own identity. To act with autonomy, an individual must know themselves and act "in accord with one's reflective considerations" (Deci & Ryan, 2017, p. 51). Autonomy is enhanced or supported in educational contexts with opportunities for choice in work, explanations for activities, and acknowledgement of feelings and diverse perspectives. However, this need is undermined by forced choices without student ownership of their goals, use of tangible rewards, and inflexible deadlines (Deci & Ryan, 2017).

The need for competence refers to "the need to feel effectance and mastery" (Deci & Ryan, 2017, p. 11). In other words, humans are inherently curious and need to feel capable in their endeavors. In the classroom, this need may be supported by providing optimally challenging tasks. These include activities compatible with an individual's capabilities and offer them a sense of mastery, as opposed to boredom or defeat which would thwart the need for competence. Students should be provided task-specific feedback alongside challenges to guide them in their learning. Vague or negative feedback undermines an individual's need for competence.

According to Deci and Ryan (2017), the need for relatedness is a need for belonging and connectedness with others. It manifests in an individual's need to contribute to others or be a member of a larger social organization. This need is satisfied in inclusive environments that provide respect, safety, and care. On the other hand, this need is impaired by competition, social groupings, and harsh judgments (Deci & Ryan, 2017).

Deci et al. (1981) conducted a qualitative study to create an instrument to measure levels of autonomy and control in adults and determine if these factors would influence student motivation. They provided a questionnaire to gather information about autonomy, perceived competence, and self-esteem. The study included 68 teachers in kindergarten through Grade 6 in two different school districts. Thirty-five of those teachers had their students complete a questionnaire about classroom climate, making a total of 115 students. Although detailed demographics and sampling methods were not described, Deci at al.'s (1981) findings supported the claim that students benefit from autonomy-oriented teachers. Those students were also more intrinsically motivated and had higher

perceived competence. This early research on intrinsic motivation helped establish the first mini theory of cognitive evaluation theory.

Self-Efficacy

Self-efficacy, a construct of Bandura's (1997) social cognitive theory, "is beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Bandura explained that beliefs of self-efficacy center around a human's desire for control and predictability in situations. When influence, control, or predictability is attainable, individuals are more likely to feel self-efficacious in achieving desired outcomes. Rather than the actual ability, self-efficacy is the personally held set of beliefs about capability an individual brings with them to a setting or situation. Furthermore, Bandura (1997) described self-efficacy as highly dependent upon four experiences: enactive attainment, vicarious experience, verbal persuasion, and physiological states. Individuals garner self-efficacy using a combination of each of the sources of self-efficacy, and not just one or a few (Bandura, 1997).

Most important of the sources of self-efficacy are enactive attainment or experience mastering tasks (Bandura, 1997), which grants an individual with opportunities to experience success. Bandura (1997) stated, "Success builds a robust belief in one's personal efficacy. Failures undermine it, especially if failures occur before a sense of efficacy is firmly established" (p. 80). Experience with a task, according to Bandura, was the most effective way to build self-efficacy.

Vicarious experience is a source of self-efficacy provided through social models (Bandura, 1997). When individuals do not gain access to self-efficacy through enactive attainment, social models can be particularly important (Kang et al., 2021). An individual

observes others in the environment, often identifying other models the observer perceives as similar to the observer or similarly capable, and then make judgments about the observer's abilities in persisting through and achieving desired outcomes (Bandura, 1997). This allows individuals to see themselves vicariously in the task, which may actually be more important than seeing the other individual model the behavior itself (Kang et al., 2021). If others succeed, it instills beliefs of self-efficacy that the observer will be capable of the same. If the other does not succeed, it reduces the observer's beliefs of self-efficacy for the task, undermining the observer's efforts to begin (Bandura, 1997). Therefore, the modeling is an important aspect of vicarious experience.

Verbal persuasion is a third source of self-efficacy whereby encouragement and structured situations offer continued support for self-doubters (Bandura, 1997). Self-doubters convince themselves they do not have the skills to succeed in a given task, even when they actually do have the skills. However, when verbal persuasion from another individual is given, this can help them overcome those doubts. It can be detrimental to provide unrealistic encouragement for an individual whose skills are not matched with the task. Bandura (1997) explained that it is important to make persuasive efforts realistically and hierarchically. Breaking a task down into smaller steps can facilitate goal attainment and beliefs of self-efficacy.

Physiological states also provide a source of self-efficacy. This source refers to individuals' levels of stress and their interpretations of their emotional reactions and coping abilities in challenging situations. As an individual reflects upon their emotional state during a challenging task, a positive mood contributes to positive self-efficacy beliefs, while negative moods lower those beliefs. This involves both perceived coping

self-efficacy and thought control efficacy. For example, consider an individual with low coping self-efficacy faced with a situation they deem threatening, such as attending a new school. A threatening situation may heighten their anxiety and the individual may get stuck in a disturbing thought pattern in which they conjure up worst case scenarios (Bandura, 1997).

There are many potential positive impacts of improved self-efficacy. Individuals and groups gain personal efficacy by acting with individual, proxy, or collective agency (Bandura, 1997). Through self-reflection on previous tasks, individuals assessed their capability and attained efficacy beliefs, which influenced their course of action, effort, persistence, resilience, thought patterns, emotional state, and understanding of accomplishment (Bandura, 1997). Thus, individuals' agency beliefs were predictive of academic performance (Bandura, 1997). Bandura (1997) defined agency as the degree to which an individual felt influence or control over events. Therefore, agency was not complete control, nor was it choice, but rather seen as an individual's ability to influence outcomes.

The framework of SDT and self-efficacy was strongly connected to my problem of practice focused on the impacts of confidence and motivation for students with disabilities. According to Deci and Ryan's (2017) organismic integration theory, students who possessed self-efficacy and had their basic psychological needs met became intrinsically motivated. Additionally, students who had their needs met and were not controlled by external motivators developed a more authentic sense of self. The significance of the synthesis of SDT and self-efficacy as an intervention framework is that it holds the potential to provide authentic and intrinsically motivating learning

experiences for students with disabilities. The expected result may transform historically marginalized students into those who become self-determined advocates.

Historical Context

This section provides a description of the historical development of theories of motivation, followed by a description of distal controls through accountability measures and standards, and concludes with an explanation of personalized learning and motivational models for instructional design.

Development of Motivation Theories

The seeds of motivational theory were planted in the late 1800s with the advent of play theories characterized by inherent curiosities. This concept took root in 1898 with Groos, who put forth the idea that play created pleasure, which gave a sense of freedom. Also present in the early 1900s in Italy, Montessori began studying students in poverty and those with disabilities. She believed children had inherent motivations to explore, play, and discover which would be extinguished with prizes and punishments (Montessori, 1912). Montessori gained popularity in the early 1900s and her methods and schools have continued to be implemented in current public and private school settings. In 1918, Woodworth developed the behavior-primacy theory, which stated curiosity, constructiveness, and self-assertion stimulated activities that are inherently rewarding and provided satisfaction. Dewey provided a progressive approach to intrinsic motivation in 1922, positing curiosity and interest fueled development, but that these were susceptible to environmental factors which "require support and guidance" (as cited in Deci & Ryan, 2017, p. 105).

Researchers like Watson, Thorndike, and Skinner became increasingly interested in measurable and changeable behaviors, and viewed motivation as controlled by forces outside of the body. Behavioral and operant theories dominated the field of motivation from the 1920s through the 1950s, with great emphasis on observable and measurable behavior reinforced by external factors. Methods from operant psychology were still popular, and, according to Ryan and Brown (2005), were improperly applied to high-stakes testing. Operant theories were also applied in the fields of psychology and special education to explain and modify student behavior. Drive theories posited by Hull (1943, as cited in Deci & Ryan, 2017) and somewhat related to Freud's work were also popular in the 1950s. These theories proposed humans and animals possessed physiological drives, and reinforcers acted to reduce the drives or bring the drive back to equilibrium (Deci & Ryan, 2017).

Soon, it became apparent that some behaviors were not explained by either an internal drive or external reinforcer. Several studies identified unexplained behaviors and Harlow wrote of these behaviors in 1953 using the term *intrinsic motivation*, as the first researcher known to use the term. In 1959, White refuted drive and reinforcement theories, explaining they were not adequate to describe motivation. He put forth the concept of effectance motivation based on innate psychological tendencies. In 1968, deCharms submitted humans had a "primary propensity" (p. 118, as cited in Deci & Ryan, 2017) for control. Building primarily upon the previous works of White (1959) and deCharms (1968, as cited in Deci & Ryan, 2017), Deci and Ryan (2017) formulated the constructs of their SDT in 1980.

A Tidal Wave of Standards and Accountability

In 1983, *A Nation at Risk* was published, marking the beginning of the standards-based reform movement. The tidal wave of standards and standardized testing crashed down on the education system, creating immediate and lasting impacts upon all those in it. With the passage of the No Child Left Behind Act in 2001, the Common Core State Standards in 2008, and Race to the Top initiatives in 2009, the United States entered the accountability movement. A handful of companies profiteered and dove into mass production of instructional materials, assessments, and test preparation kits for school districts. High-stakes testing and educational policy increased pressures to narrow the curriculum and used scripted programs and practices that shoved psychological needs to the curb (Ryan & Weinstein, 2009; Reeve & Shin, 2020) and were at odds with equitable education (Carr, 2020; Comber, 2015; Knoester & Au, 2017).

Demands to implement instructional programs with fidelity came with demands for higher quality education and measurable success criteria. According to Knight (2019), fidelity of implementation was defined as the degree to which an intervention, such as an instructional material or textbook, was used as intended. For instance, many instructional programs dictated the sequence in which their program should be delivered, including (a) which scripts to read, (b) which materials to provide, (c) the duration to spend on each component, (d) how and when to differentiate, and (e) how many students should take part in a group. Proponents of fidelity argued deviation from a program's recommendations lead to inadequate teaching that adversely affected student progress (Emshoff et al., 1987). Emshoff et al. (1987) conducted a mixed-methods study to examine the fidelity of implementation of seven instructional programs in education and

criminal justice. They selected 10 sites for each program to visit and created a random sample of 70 sites ranging in fidelity scores. They aimed to identify fidelity and effectiveness criteria, determine generalizability across sites, and then establish valid means of measuring fidelity. The results of their study indicated programs could be implemented with fidelity, and program effectiveness was impacted by the degree to which it was implemented with fidelity. In their conclusion, Emshoff et al. (1987) recommended providing funding to sites contingent upon fidelity, and the provision of assistance and monitoring as methods for increasing fidelity. This stance on instructional design and delivery stood in opposition to personalization because it was not responsive to the individual student.

The Ripple Effect of Distal Control

The impacts of the wave of four decades of standards and accountability reforms have continued to have enduring impacts on students and educators in the 2020s. For instance, there was a disconnect between the instructional style and the high-stakes testing demands in writing. According to a meta-analysis of 49 qualitative studies of high-stakes testing, Au (2007) researched the impact of high-stakes testing on three aspects of curriculum: content, structure, and pedagogy. In his meta-analysis, he found significant impacts on all three aspects, the most significant being on content. When he came to his final phase of analysis in which he identified triads in themes across the studies, the most common triplet was curriculum contraction, structure fragmentation, and teacher-centered pedagogy, which was present in 75% of the studies. This common theme triplet was found in remedial special education programs (Jones & Casey, 2015). The second most common theme triplet was the exact opposite of each of those themes

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(i.e., curriculum expansion, structure integration, and student-centered pedagogy)

presented in 21.4% of the studies. This theme was more characteristic in personalized

learning environments. This finding illustrated the control of high-stakes testing upon

instructional style.

It is important to understand the demands of reading and writing and high-stakes

testing alongside common instructional styles evidenced in Au's (2007) meta-analysis.

High-stakes testing required students to write argumentative essays, which required

critical and analytical thinking. South Carolina's SCREADY Writing Component (South

Carolina Department of Education, n.d.) required students to respond to a prompt with a

text-dependent analysis. This test involved both reading and writing. The ACT (ACT test,

n.d.) writing test required students to consider multiple perspectives on an issue, take

their own perspective, and develop an argumentative essay response. Traditional teach-

test-measure-repeat models of education do not embrace critical thinking and debate,

both of which were skills required for these assessments (Au, 2007). Traditional test

preparation methods leave students who are institutionalized inadequately prepared to

engage in analytical writing. The theme triplet of curriculum expansion, structure

integration, and student-centered pedagogy found in personalized learning environments

led to an increase in critical thinking and analytical writing ability (Au, 2007). Therefore,

if students were to perform better on high-stakes analytical writing assessments,

personalized learning environments may have provided better outcomes.

High-stakes testing has acted as a controlling motivator for educators, impacting

the extent to which teachers were able to support students' psychological needs (Ryan &

Brown, 2005). Deci and Ryan (2017) explained legislation, such as policies for

accountability measures through high-stakes testing, have acted as a controlling motivator for administrators. According to Knoester and Au (2017), tests had high stakes once consequences were attached, such as teacher pay or graduation. These consequences created pressure on teachers. Ryan and Brown (2005) explained policymakers have erroneously applied Skinnerian operant theory, with rewards attached to outcomes instead of behaviors. In this scenario, unintended behaviors such as cheating and curriculum compacting could become a reinforced behavior (Ryan & Weinstein, 2009), both of which could thwart students' psychological needs.

Personalized Learning

Although personalized learning as a concept is not new to education, the term *personalized learning* became official and more widely known as an educational term with the passage of the Every Student Succeeds Act (ESSA) in 2015. As the concept was still very recent in the context of current educational history, there was still debate about how personalized learning should appear. The zone of proximal development, contextualized learning, social interaction, and impacts of goal setting on motivation were all aspects of social constructivist learning theory that could be found in personalized learning (Alamri et al., 2020). In general, the purpose of personalized learning was to increase learner motivation by centering them in the design process, thereby leading to higher achievement. Slocum (2016) for the Aurora Institute defined personalized learning as "tailoring learning for each student's strengths, needs and interests–including enabling student voice and choice in what, how, when and where they learn–to provide flexibility and supports to ensure mastery of the highest standards possible" (para. 4). Of particular interest to this action research study, Alamri et al.

(2020) brought SDT into their definition of personalized learning and described it as "an approach that provides learning choices and tailors learning content toward individuals' learning needs, interests, goals, and prior experiences to enhance knowledge and skills acquisition and support psychological need satisfaction and intrinsic motivation" (p. 325). These two definitions are very similar, but they highlight persisting differences. Personalized learning required a paradigm shift in approach from teacher-centered to learner-centered, which is a deeper conceptualization.

Personalized learning is an approach with no specific outline for methodology. Therefore, each teacher may implement it differently. Several studies have investigated the implementation of personalized learning to identify its common characteristics. Basham et al. (2016) found the common features of personalized learning environments included (a) instruction in and tasks supporting self-regulation; (b) transparent, continual, and actionable data; (c) a cycle of feedback; (d) learner voice integrated in the experience; and (e) choice in learning and demonstrating understanding. Self-regulation strategies were important for the successful flow of personalized learning environments (Basham et al., 2016). Teachers provided structures for learners to (a) create plans or set goals, (b) monitor their progress, (c) persist or reengage in tasks, and then, (d) reflect upon their progress. Teachers and students alike required continuous access to meaningful or actionable data on student progress and effort.

A common characteristic across personalized learning environments was immediate and specific feedback (Basham et al., 2016). Clear and timely feedback allowed students to understand their learning better and helped propel them forward on their learning path. Students included in the lesson design process were more likely to

take ownership (Basham et al., 2016). For instance, students may have been involved in identifying ways to solve problems in task design or behavior. The student may have identified positive solutions that were not previously identified by the teacher. Providing students with multiple methods to demonstrate mastery could lead to increased engagement and more authentic learning. Basham et al. (2016) suggested students complete multiple different kinds of tasks to achieve full mastery.

Kallio and Halverson (2020) visited 11 schools with high implementation of personalized learning practices over 5 years to determine leadership patterns supportive of personalized learning. They found three organizational tasks occurred across schools, including "reorganizing learning environments to support student voice and choice, assembling an idiosyncratic technology ecosystem to distribute teaching and learning tasks, and redesigning instructional time to prioritize student's interests, agency, and learning relationships" (Kallio & Halverson, 2020, p. 372).

The South Carolina Department of Education's Office of Personalized Learning (SCDEOPL, 2021) has created a framework of personalized, competency-based learning using multiple organizations with expertise in the field. The framework's five main components include: student ownership, learner profiles, learning pathways, competency-based learning, and flexible learning environments (SCDEOPL, 2021). The National Center for Learning Disabilities (Jones & Casey, 2015) further argued the most important benefit of personalized learning for students with disabilities was self-advocacy. Students with difficulty learning and focusing were up to 4 times more likely to have had trouble with self-confidence than their typically developing peers (Jones & Casey, 2015). Thus, the development of self-advocacy skills played a critical role in identity development,

increased confidence, and successful transition to life after high school for individuals with disabilities (Jones & Casey, 2015). The need for increased self-confidence and self-advocacy skills rests firmly upon the theoretical framework of SDT and self-efficacy.

Basham et al. (2016) were additionally interested in researching the effectiveness of personalized learning environments for students with disabilities. They observed in schools in an urban reform district with a population of approximately 6,500 students with a high population of students with disabilities across K–12 settings. The researchers suggested personalized learning environments have potential benefits for all students, but they further stated that the customization has especially intriguing implications for students with disabilities. With personalized learning still in its infancy, no specific implementation standards have been established. Therefore, the common characteristics or conditions of personalized learning acted as a reference throughout the intervention of the present action research study.

Fisher and Frey's (2013) gradual release of responsibility framework is an instructional model that supports personalized learning's student-centered approach. Webb et al. (2019), describe the flexibility and scaffolds succinctly, stating:

> The teacher orchestrates the transactions among the reader, the text, and the task in ways that help all students make meaning. Explicit teaching is provided at the point of need, rather than indiscriminately. Over time, the explicit teaching of particular areas is removed so students gain independence. Such teaching requires a teacher who can make decisions and adapt instruction based on particular contexts and needs.

The flexibility of the gradual release of responsibility instructional model facilitates

meeting various student needs throughout a complex literacy process (Webb et al., 2019).

Personalization for Social Change

Self-determination theory and self-efficacy were the bedrock of this action

research study. Every individual has psychological needs that function at the most basic

and fundamental level. Refusing or ignoring these needs, possibly through acculturation,

creates inequities (Carr, 2020). Therefore, this action research study's personalized

literacy intervention was an argument in favor of social justice.

Although basic psychological needs are energizers for academic outcomes,

educational environments that support these needs go even further by providing students

the opportunities to blossom personally and socially. According to self-determination

theory, autonomy allows individuals to explore choices that align with their interests.

Therefore, access to autonomy is key to healthy identity exploration and development.

According to Deci and Ryan (2017), individuals have multiple identities, especially in

their formative years. As an individual moves between social contexts, this person may

conceal parts of an identity, depending upon their support for or thwarting of basic

psychological needs in those varying contexts.

Horowitz et al. (2017) provided an example of this identity concealment, finding

that 69% of individuals with disabilities had not disclosed their disabilities and need for

accommodations to their postsecondary institutions, likely because of the stigma

surrounding disabilities or because they believed they had outgrown their disabilities.

This illustrated individuals' discomfort with the disability portion of their identity.

Luyckx et al. (2009) examined the relationship between the exploration of interests and

needs satisfaction. Their findings indicated a positive correlation between needs satisfaction and identity commitment. An individual committed to an identity was described as having had integrated their identity. Individuals with lower levels of needs satisfaction were described as having had controlled, or introjected, identity. In needs-supportive personalized environments, identity was not only developed, but also honored. Individuals with disabilities learned about their disability, methods that worked for them, and how to have confidently vocalized their needs, which fostered identity commitment (Deci & Ryan, 2017).

External controls and pressures (e.g., educational policy) create competing messages, causing educators to implement varying degrees of needs-supportive practices, which are vital to motivation. Motivation is inextricably tied to basic psychological needs, which are a "fundamental human entitlement" in a "liberal democracy" (Carr, 2020, pp. 341–342). Educational programming and policy causes motivation deprivation, particularly for marginalized populations (Carr, 2020; Knoester & Au, 2017; Zhao, 2017). Therefore, a needs-supportive, personalized literacy event that centered students in the instructional design process provided a method to combat the motivational detriment caused by standardization and control.

Recent Research

This section reviews recent research related to the impacts of the SDT and self-efficacy constructs on adolescents with disabilities and their literacy achievement. A review of literature in SDT and self-efficacy covers declining adolescent motivation, the benefits of autonomy support, and the predictive power of self-efficacy.

Declining Adolescent Motivation

Research on SDT began with intrinsic motivation. An individual is intrinsically motivated if they do activities for their inherent interest or enjoyment (Deci & Ryan, 2000). In a meta-analysis of 18 studies examining the relationship of intrinsic motivation and academic achievement, Taylor et al. (2014) found intrinsic motivation played a significant role in and consistently positive correlation with academic achievement. Furthermore, a study conducted by Froiland and Worrell (2016) showed the predictive capability of intrinsic motivation in student engagement. Froiland and Worrell's findings revealed that engagement was also shown to predict higher achievement through student GPA, a finding that held true for students of color as well.

Thirty years of studies (Anderman et al., 1999; Gnambs & Hanfstingl, 2016; Hay & Ashman, 2003; LaFontana & Cillessen, 2010; Midgley & Feldlaufer, 1987) about SDT have revealed intrinsic motivation decreased in adolescent years. Multiple researchers have attempted to provide a reason for the sharp decline, ranging from inauthentic learning or learning in isolation (Anderman et al., 1999), an increase in the role of peers over adults (Hay & Ashman, 2003; LaFontana & Cillessen, 2010), and an increase in grading and teacher-directed instruction that conflicts with adolescent needs for independence (Midgley & Feldlaufer, 1987).

Perhaps more importantly, research has now indicated the decline in intrinsic motivation could be prevented if basic psychological needs are properly addressed (Gnambs & Hanfstingl, 2016). To investigate the changes in needs satisfaction and their impact on all levels of motivation in adolescents, Gnambs and Hanfstingl (2016) conducted a study using an accelerated longitudinal design. The population included 600

students (i.e., 334 boys and 266 girls) between 11 and 16 years of age, from 52 secondary schools across rural and urban areas of Austria. Trained teachers, working with groups of 20 to 30 students, used a questionnaire to gather information on each of the basic needs and levels of motivation. Only two data points were collected per cohort and additional data collection methods may have provided more objective information. Despite these limitations, Gnambs and Hanfstingl (2016) confirmed previous studies' findings and identified a negative correlation between age and intrinsic motivation. They found needs satisfaction did not increase intrinsic motivation, but it was critical for its maintenance. Interestingly, the satisfaction of the basic psychological needs was not required for extrinsic motivation types.

Benefits of Psychological Needs Support

Alamri et al. (2020) investigated the impacts of personalized instructional design on learners' perceptions of basic psychological needs of autonomy, competence, and relatedness. Researchers gathered qualitative data in the form of interviews and course reflections to compare participants' qualitative feedback in two college-level online courses, one tailored to meet students' interests and needs and one with a traditional one-size-fits-all format. Participants in both courses described a lack of relatedness with their peers, despite multiple discussion formats. The personalized course design provided students with course pathways tailored to meet their needs. However, these pathways may have led to isolation and a lack of relatedness with their peers. Based on feedback from participants in the traditional course, students felt supported in the areas of competence and autonomy due to a well-designed course project and effective instructor

support. The personalized course yielded positive feelings of autonomy, competence, and intrinsic motivation.

Extensive research has been conducted to determine and test the benefits of autonomy-supportive environments and strategies (Deci et al., 1981; Núñez, & León, 2015; Reeve & Shin, 2020; Wehmeyer et al., 2017). Recent studies have revealed the characteristics of these environments and teachers, including using careful observation and informational feedback, building community, using collaboration and student involvement in instructional design, and facilitating rather than directing (Reeve & Shin, 2020; Wehmeyer et al., 2017).

According to Hafen et al. (2012), the highest predictive capability for engagement was autonomy, and the constructs of competence and relatedness did not predict future engagement. Students who received the maximum benefit of autonomy-supportive environments and achieved self-determination were more likely to take on challenging tasks by choice, including literacy activities. Wehmeyer et al. (2017) stated, "Interventions to promote self-determination have been shown to support academic and transition goal attainment, engagement with the curriculum, postschool employment outcomes, and postschool community access outcomes for youth across disability categories" (p. 296). Reeve and Shin (2020) elaborated on autonomy support, explaining individuals with agentic motivation, or who were motivated to voice their interests to adjust their educational paths, were predictive of outcomes and thrived in autonomy-supportive environments. Perhaps most interesting and exciting was that the benefits of autonomy-support did not discriminate by age, social class, gender, ability, or disability category (Núñez & León, 2015; Wehmeyer et al., 2017). Pelletier and Joussemet (2017)

specifically focused on the effectiveness of autonomy-supportive interventions for individuals with intellectual disabilities. Their participants with disabilities in autonomy-supportive interventions experienced (a) greater autonomy satisfaction, (b) more perceived value in activities, (c) greater decline in anxiety, and (d) increased activity engagement. Their findings supported the hypothesis that individuals with intellectual disabilities could benefit from autonomy support. Thus, recent research has solidified the connections between autonomous teaching styles, strategy use, and the development of self-determination in students with and without disabilities.

Integration of Self-Efficacy and Self-Determination Theories

Self-efficacy and competence have been used interchangeably in literature. Seeking to create clarity in the two constructs, Rodgers et al. (2014) conducted two studies examining ways in which to differentiate between self-efficacy and perceived competence for exercise. The first study, conducted with a heterogenous sample of undergraduate students enrolled in a health education course, aimed to measure students' perceived competence and degree of self-efficacy for exercise. The second study, conducted with a homogenous sample of individuals with similar body type and athletic readiness for exercise, aimed to replicate the findings of the first study. The researchers (Rodgers et al., 2014) stated, "the independent effects of the two constructs might help us to understand why it is that even when people have high task-self-efficacy for a behavior, such as exercise, they still do not necessarily engage in that behavior" (p. 22). Therefore, the findings of these studies supported the researchers' hypotheses, indicating that perceived competence and self-efficacy are not the same construct and suggest further research exploring how the two works in tandem.

Recent research (Girelli et al., 2018; Warner et al., 2011) identified connections between self-efficacy and self-determination theories, with strong connections between self-efficacy and autonomy. Warner et al. (2011) conducted a study in the medical field examining levels of self-efficacy and autonomy in elder individuals with multiple illnesses or disabilities who required varying levels of supportive care. The findings of their study indicated that individuals with high self-efficacy may perceive themselves to have more autonomy if provided an input in their choices. To the contrary, individuals with high self-efficacy who do not desire assistance may perceive support as restrictive of their autonomy. Even more relevant to the education field and this action research study, Girelli et al. (2018) investigated the impact of parenting and teaching styles on students' success in their first year of college. The findings of their study indicated that students whose needs for autonomy were supported found themselves more autonomously motivated and equipped with self-efficacy beliefs, which then led to more academic success. The integration of self-efficacy and self-determination theory in studies by Girelli et al. (2018) and Warner et al. (2011) provided significant support for the combination of these theories as a means to build motivation and academic success.

Students With Disabilities

Research indicated students with learning disabilities exhibited levels of self-efficacy that were miscalibrated with their actual abilities. Klassen (2002b) conducted two reviews of studies including students with learning disabilities and self-efficacy. The first was a review of 16 studies of self-efficacy beliefs of students with learning disabilities in sixth through 10th grades (Klassen, 2002b). The second was a review of 22 studies (Klassen, 2002a) but age range was not limited. Both reviews were specifically

related to writing. He found general education students in elementary years evidenced high self-efficacy, but their self-efficacy was depressed as students moved into adolescence, encountering more complex writing and an increased use and demand for writing. His findings indicated self-efficacy was a strong predictor of writing competence in early adolescence, but this finding was challenged when factoring in disabilities, adolescence, and writing demand. Klassen (2002a) found students with learning disabilities overestimated their ability to complete complex writing tasks, possibly due to faulty task analysis or inaccurate self-knowledge. According to Bandura (1997), although slight overconfidence was not harmful to task completion, significant discrepancies between beliefs and performance could lead to further academic difficulty because students did not deploy the necessary strategies.

Expounding on a previous study by Graham and Harris (1989), Sawyer et al. (1992) conducted a quantitative study to determine the effectiveness of self-regulated strategy development (SRSD) in writing of 43 fifth and sixth grade students with learning disabilities, 10 of whom were placed into a control group. Additionally, 13 normally achieving students were randomly assigned to each of three intervention groups. Researchers included measures of self-efficacy to gauge participants' judgment of their own capability to complete a fiction story. SRSD involved using explicit instruction to help students learn self-instructional and self-regulation methods to improve generalization and maintenance of writing skills. Each of three intervention groups received a varying level of intensity of the intervention, with the fourth control group receiving no intervention. Results of their study indicated students receiving the fully implemented SRSD intervention performed higher in writing and generalized skills. The

researchers were not able to make substantiated claims about maintenance of skills over time. This finding demonstrated SRSD was an effective strategy for indirectly improving self-efficacy and generalizing skills. In their data, Sawyer et al. (1992) discovered students with learning disabilities overestimated their ability to perform tasks. Graham and Harris (1989) hypothesized students with learning disabilities may overestimate abilities as a self-protective coping mechanism. Although research (Graham & Harris, 1989; Klassen 2002a, 2002b; Sawyer et al., 1992) has identified possible reasons for miscalibrations between self-efficacy and actual competence in students with learning disabilities, there is a lack of research identifying successful strategies to assist in calibrating these concepts.

Domain-Specificity of Self-Efficacy

According to Bandura (1997), beliefs of self-efficacy are domain- or task-specific. Research (Shanahan & Lomax, 1986; Shell et al., 1989) further identified the relationship between reading and writing self-efficacy, finding that the two domains existed in a unidirectional relationship, with reading self-efficacy having had more influence over writing achievement. This trend continued for mature writers. The dependence of writing upon reading achievement and self-efficacy into adulthood (Shanahan & Lomax, 1986; Shell et al., 1989) created a sense of urgency to intervene with writers at younger ages.

The complexity of writing, the effort and persistence required for the task, and an individual's level of motivation and self-efficacy for writing may have impacted their ability to begin, persist, and complete writing with high quality. Therefore, to approach such a complex task as writing, an individual must, at the least, have had their

competence enhanced through optimal challenge, specific feedback (Deci & Ryan, 2017), and mastery experiences (Bandura, 1997).

Summary

As described in Chapter One, the problem I explored in this action research study focused on the difficulty of engaging students with disabilities in a mandated scripted literacy instruction. Needs-supportive approaches provided a promising avenue for boosting motivation in this study. The groundwork of this study was built upon SDT (Deci & Ryan, 2017) and the construct of self-efficacy (Bandura, 1997).

Throughout history, Au (2007) indicated it has become evident the invisible hand is becoming heavier and more influential in education, swaying instructional styles. Apple (1996) and Giroux (2020) agreed instructional decisions were moving further from educational professionals in school buildings. Inequitable education disguised by accountability measures, legitimize norming practices and further marginalize those who do not fit the predetermined criteria (Carr, 2020; Comber, 2015; Knoester & Au, 2017; Zhao, 2017).

It was clear from a review of the literature that psychological needs and self-efficacy played significant roles in predicting motivation, engagement, and achievement (Bandura, 1997; Deci & Ryan, 2017; Froiland & Worrell, 2016; Girelli et al., 2018; Hafen et al., 2012; Núñez & León, 2015; Reeve & Shin, 2020; Taylor et al., 2014; Warner et al., 2011; Wehmeyer et al., 2017). The miscalibrations in self-efficacy for students with disabilities (Graham & Harris, 1989; Klassen, 2002a, 2002b) and declines in intrinsic motivation for adolescents (Gnambs & Hanfstingl, 2016) have complicated

this algorithm, making the marriage of SDT and self-efficacy a unique and important framework for this action research study.

Deci and Ryan (2017) claimed the highest quality outcomes were realized "when students' interest and engagement in learning are supported" (p. 354). This outcome resulted in "becoming motivated, vital, resourceful, and fully functioning adults" who are "empowered and confident. . . and feel a sense of belonging to their schools and their larger human community" (p. 354). This concept supported the implementation of needs-supportive methodology guided by personalized learning. To begin to bring about these changes for my students, personalized learning design elements (Basham et al., 2016; Kallio & Halverson, 2020; SCDEOPL, 2021) acted as a guide to bring students to the center of classroom and instructional design in this action research study.

Given the gap in research at the intersection of personalized learning, motivation, and students with disabilities, this area warranted further exploration to contribute to the current body of research on personalized learning and identify needs-supportive, personalized interventions for students with disabilities.

Chapter Three: Methodology

This chapter begins with a brief overview of the study purpose, research questions, and the theoretical framework. This is followed by a detailed description of the research design, which defines and explains the setting and participants. Each method of data collection is then outlined, followed by a description of the analysis procedures for the study. The chapter concludes by explaining positionality and methods to ensure validity and reliability.

Study Overview

This action research study was centered around the problem of adolescents with disabilities and their experiences with self-efficacy, autonomy, competence, and relatedness. My local school district's Department of Exceptional Children required special education teachers to provide students with disabilities literacy instruction using a scripted program that did not support students' basic psychological needs. These programs do not provide students with optimal challenge, valued or personally meaningful activities, tasks encouraging active engagement and conversation, or opportunities for control in the learning task and environment. Including these typical aspects in instructional design and delivery can help support basic psychological needs and build intrinsically motivated behavior. However, the absence of these aspects does

the opposite, creating more extrinsically motivated behavior or the absence of motivated behaviors altogether.

The mandated instructional materials at the school where I taught at the time of this research have not offered my students an optimal challenge that has been personally relevant. These instructional materials have presented literacy as linear and granular tasks of little value or personal relevance to students. As such, oversimplifying the complexity of literacy has painted an inaccurate picture of literacy for students. Furthermore, students have not been engaged with literacy for a purpose that is connected to the individual. When faced with more authentic, multifaceted, nonlinear literacy tasks, they have been unprepared and defeated.

Personalized literacy instruction offers students, including those with disabilities, a promising approach to design instruction for and with students, with intentionality (Basham et al., 2016; Jones & Casey, 2015; SCDEOPL, 2021). Thus, students in this action research study participated in a literacy event. A literacy event (Street, 2003) situates literacy as a social experience, whereby meaning is constructed by engaging in dialogue with others. The design process and materials provided students with voice, choice, and appropriate challenge, and opportunities to build self-efficacy. I hope this approach provided students with greater confidence that will help them in achieving success during and after high school. I hope my students' participation in personalized learning opportunities in literacy fueled their basic needs so their sense of self-efficacy may flourish.

Purpose

The purpose of this qualitative multiple-case study was to explore each student's experiences with self-efficacy (Bandura, 1997) and motivation, as put forth by Deci and Ryan (2017), through a personalized literacy event (Street, 2003). This approach aimed to support students' basic psychological needs and beliefs of self-efficacy. This study was a multiple-case study providing rich description of each student–participant in rich detail. Patterns or themes common and divergent across cases were then explored and explained using cross-case analysis (Merriam & Tisdell, 2016). As action research is less about "getting it right" than "making it meaningful" (Greene, 1992, as cited in Herr & Anderson, 2015, p. 72), the purpose of this action research was not to generalize, but to identify local knowledge for participants and immediate community members.

Research Questions

Using a qualitative multiple-case study methodological design, I explored and gained findings to the following research questions:

Research Question: How do adolescents with disabilities experience motivation

for literacy, as defined by the psychological needs of self-determination

theory, in the context of a personalized learning special education classroom?

Subquestion: How do adolescents with disabilities demonstrate self-efficacy for

literacy in the context of a personalized learning special education classroom?

<center>Research Design</center>

Design Overview

Herr and Anderson (2015) stated, "Action research is a process rather than a product, and as such, our invitation is one of finding our way together rather than getting

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to a predetermined end" (p. 155). It is a cyclical process that often follows a sequence of planning, taking action, observing, and reflecting, though the path is unknown until the participants and data reveal themselves to the researcher.

After the research design was approved by the local school district and IRB, three student–participants were recruited by purposive, volunteer, and convenience sampling. I communicated first with parents of students with diagnosed disabilities to provide information of the study and obtain permission and layered consent. A copy of the parent permission form is provided in Appendix D. Participants were informed of the study details. Each data source used in this action research study was mined for information aligned with the research questions. This action research was guided by the participants; therefore, the course veered responsively and could not have been anticipated.

Case Study as a Methodology

This action research followed a qualitative multiple-case study method. Merriam and Tisdell (2016) stated, "A case study is an in-depth description and analysis of a bounded system" (p. 39) in real-life context. Cases are defined by whether they are bound by time and context. In this case study, the cases were limited by their eligibility in special education, location of their special education services, and age.

Case studies allow researchers to investigate one or more cases, gather a vast amount of descriptive data from those cases, and explore the meaning of a phenomenon. Case studies are particularly useful and relevant when it is difficult to decipher or separate a case from its context (Merriam & Tisdell, 2016). Therefore, a case study methodology was highly aligned with this action research study, which took place in a real-life educational context that was inseparable from the rest of its educational context.

To follow a qualitative action research cycle whereby the student–participants were at the very center of study, I collected various forms of data, and simultaneously analyzed them to determine next steps. The data collected in this study were (a) semi-structured interviews, (b) observations, (c) reflections, and (d) artifacts and documents. These data were gathered from each case, or individual, to identity themes that emerge across multiple individuals and in alignment with research questions.

Constructs

All data sources were investigated for autonomy, relatedness, competence, and self-efficacy concepts, specifically as they related to literacy for adolescent students with disabilities.

Autonomy

Self-determination theory contributed a frame of reference for understanding autonomy and a starting point for approaching the research questions. Self-determination theory provided a way of understanding human motivation and aspects that affect it. As posited by Deci and Ryan (2017), SDT suggested individuals have intrinsic needs for positive engagement, success, and a sense of control, or autonomy. The presence of these breed motivation, and their absence extinguishes it. Autonomy is defined as the professional freedom and trust to make decisions in alignment with shared values and self-identified commitments (Knight, 2019; Tomlinson, 2019).

Relatedness

Deci and Ryan (2017) put forth that individuals have a need for relatedness, or a sense of belongingness to a community. Some ways to enhance individuals' need for relatedness is by providing a sense of safety, meaningful exchanges, or an inclusive

setting. On the other hand, this need can be thwarted or frustrated with harsh judgments, competition, or exclusionary practices (Deci & Ryan, 2017).

Competence

Competence is defined as an individual's ability to achieve mastery. Individuals receive support for competence by being provided appropriately challenge tasks partnered with positive and specific feedback. The need for competence is frustrated when individuals are given tasks that are uninteresting and overly complex. A lack of precise and timely feedback can further frustrate this need. The associated concepts of SDT provided a hypothetical explanation of concepts in my problem of practice and why motivational challenges may occur in instruction.

Self-Efficacy

Bandura's (1997) construct of self-efficacy is the belief an individual brings to a task about their own capability of accomplishing the task at hand. An individual's access to the four sources of self-efficacy contribute to their development of self-efficacy. The four sources of self-efficacy include enactive attainment, vicarious experiences, verbal persuasion, and physiological states. As individual interact with a combination of these experiences or sources, they reflect on and interpret their abilities, thus instilling positive or negative beliefs of self-efficacy (Bandura, 1997).

Intervention

The intervention for this study unfolded over the course of the school year. The primary focus of the intervention was students' need for targeted literacy instruction that boosted overall motivation. I used the design elements of personalized learning (Basham et al., 2016; Kallio & Halverson, 2020; SCDEOPL, 2021) as a reference when creating

the needs-supportive classroom and instructional design, which helped shift the dynamic of the class from teacher-led to student-led.

The year-long intervention followed a gradual release process predicated on the responsibility instructional model (Fisher and Frey, 2013). The literacy event that unfolded over the course of this study took inspiration from the works of Street (2003) and Rosenblatt (1985), who both advocated that literacy is a culturally embedded and holistic process, one that cannot be neatly separated into components like decoding and fluency. Street (2003) explained that literacies, as a plural term, were socially situated, thus meaning that literacy itself was not isolated to reading and writing. On the contrary, a literacy event extended to conversations and thoughts between the mediating text and the individuals interacting in the event. Similarly, Rosenblatt (1985) put forth transactional reading theory, in which the readers, coming from diverse backgrounds, engage with the text and gain multiple perspectives within discussion. Within the process of reading and discussing as a group, I followed a gradual release of responsibility model (Fisher & Frey, 2013), guiding students toward appropriate and more challenging interpretations, or providing more support as needed.

At the beginning of the school year, the intervention focused on supporting students' need for relatedness and autonomy. I worked to design the learning space for student needs and gathered students' files to learn about their backgrounds. The first semester was largely devoted to cultivating relationships, creating a sense of collective responsibility. Despite success in building a community, I noticed students' challenges with self-efficacy and motivation for literacy endured through the semester.

Moving into the second semester, I altered the literacy instruction, amplifying student voice and choice in the design process. To launch the novel study and involve students in the process, students engaged in a book tasting. As the teacher–researcher, I provided students with a variety of novels at students' instructional reading levels. These novels included *Bridge to Terabithia*, by Katherine Paterson; The *Strange Case of Origami Yoda*, by Tom Angleberger; *A Little Piece of Ground*, by Elizabeth Laird; and *Fish in a Tree*, by Linda Hunt. I assisted students in previewing, or tasting, and making predictions about each novel. Finally, students ranked the book selections, which resulted in the group using *Bridge to Terabithia* as their book for the novel study.

At the opening of the unit and intervention, I provided an overview of the novel study and an explanation of the project students would complete at its conclusion. I also provided students with a rubric for their culminating project and allowed them time to propose ideas for projects not listed on the rubric. I explained the need for a deadline on project proposals was required to best support their need for time management.

Throughout the novel study, students explored character development and theme through reflective discussion in groups and partners. Students also were required to annotate the novel loosely based on Rosenblatt's concept of reader response. Over the course of the intervention, I used a gradual release instructional model to teach students the process of annotation to retain and construct meanings from the text. This model provides ongoing and responsive scaffolds, thus supporting psychological needs and allowing access to sources of self-efficacy.

At the conclusion of the unit and conclusion of the intervention, students completed a culminating project using a method of their choosing. Students chose to

complete the project individually or in small groups. At the close of the unit, I interviewed each student–participant using open-ended questions to gather information about self-efficacy and constructs of SDT.

Setting and Participants

Setting

A rich description of the setting is important in case study because it provides an illustration of contextual issues that may influence the cases. The physical setting of this study was in a sixth and seventh grade special education classroom at a public middle and high school. Special education provides Tier 3, or the most intensive intervention supports, only for students who are identified with disabilities. The students had seven periods of instruction each day. The students in this study came to my classroom during the second period of the day for 50 minutes. There were six students who participated in the entire second period group, but only three students were participants in this study. For all other class periods, students participated in their general education classes, which would be classified as Tier 1 and Tier 2 instruction depending upon the instructional supports given. I also co-instructed the English and math classes for grades six and seven, providing specialized support within their general education settings. With this schedule in mind, the students and I walked through the building and were impacted by its atmosphere before arriving in the classroom. Therefore, a description of the building was also relevant.

Built in the 1970s, the school reflected a traditional architectural style. All elective and science classes were housed on the first floor, and all core academic content classes, including special education, were housed on the second floor. Both upstairs and

downstairs, the halls were lined completely with classrooms so there were no windows in the hallways.

Traveling down the second-floor hallway, most core content classrooms were outfitted with single-student desks with attached chairs arranged in rows facing the front of the classroom. Each classroom had one or two cabinets with materials, a digital display board, and a whiteboard or chalkboard on the wall. The windows in each classroom were frosted so heavily that it was impossible to see through them. Some teachers have decorated their bulletin boards, brought in soft seating, and added greenery or other decor to make their classrooms more inviting.

Standing at the threshold of the special education classroom, it was immediately apparent the design of the space was not traditional. There were four distinct learning areas for students and teachers around the room. The library in the back corner of the room was furnished with a couch, side table with lamp, beanbags, and two carpets. A beverage and snack station were just next to the library area. Above the beverage station was a wall of frosted windows, which was covered with light blue paper creating a soft blue glow. The ceiling fluorescent lights were not used in favor of lamps and string lights. A round project table and chairs were in the center of the room. Across from the reading nook was a group of three triangular desks and wobble stools. These faced a large wall of whiteboards. Open shelves were also in the classroom where students could access organized bins of materials, like index cards, markers, colored pencils, and erasers. At the front of the room was a semicircle of student desks and chairs in front of a digital display board and a large whiteboard.

Student–Participants

Student–participants engaged in this study were purposefully sought out in this qualitative action research study (Creswell & Creswell, 2018; Herr & Anderson, 2015). After gaining approval from the local school district and institutional review board (IRB) to conduct research, students' parents or caregivers were contacted via email. The email included a description of the study process and a request for permission for their child to participate. This strategy generated a purposive, volunteer sample of approximately 11 middle grades students. From my original 11 student volunteers, I selected three student-participants, each of whom exhibited different attitudes of capability and varying levels of motivation for literacy. Each of these students was grouped together in my second period class and was similar to one another in that they were in sixth or seventh grade, had an active IEP, and received special education services to address literacy. I also provided students in this sample with a description of the study. As minors, the student–participants were not required to give direct consent, but it was given through their parents or caregivers.

Participants in action research enrolled of their own volition and could also leave at any time without penalty. No incentive was attached to study participation other than the intrinsically motivating learning outcomes that comes from participation. As such, student–participants in this study were provided layered informed consent that fully described levels of confidentiality and permissions. I used pseudonyms for each participant, school, local school district, and other contextual pieces to protect the confidentiality of the research partners.

Data Collection Methods and Procedures

Methods adopted for this study included an initial and closing semi-structured interview, observation with descriptive field notes and reflections, and documents and artifacts. These methods allowed for simultaneous collection and analysis necessary to continuously reveal more layers of information. Whenever possible, audio recordings with transcription were used to supplement notes, which allowed for richer and more accurate description.

I employed data collection and analysis methods that assisted in filtering for bias, such as descriptive observation with rich description, critical friends, and ongoing journaling. Methods of trustworthiness, such as disciplined subjectivity, thick description, member checking, and peer review, increased the quality of a study. The inclusion of these methods provided other settings and groups the ability to determine commonalities, and thus implications in the findings that may be relevant for their situation (Efron & Ravid, 2013). Each data collection measure aligned with concepts of self-determination theory and self-efficacy and, to ensure data remained in line with the aims of the study, I frequently revisited the purpose and research questions of this study. This process helped protect against code drift and created alignment throughout the research process.

Initial Semi-Structured Interview

After identifying a group of participants for intervention, I conducted initial semi-structured interviews individually with each student–participant to elicit answers to open-ended questions aligned with each research question. The student–participant and I created an appointment during the school day to meet in the special education classroom when there would be no other students present. This allowed for the best recording

environment. The open-ended questions explored student–participants' feelings of self-efficacy and their perceptions of autonomy, relatedness, and competence. In this interview, I also gathered information about students' interests, hobbies, and life outside of school to design personally meaningful learning experiences.

Closing Semi-Structured Interview

At the conclusion of the intervention, I conducted an additional semi-structured interview of each student–participant to elicit responses to open-ended questions aligned with the research questions. Although this interview did not pose identical questions as the initial semi-structured interview, its purpose was to explore and help identify patterns in student–participants' experiences with the constructs of autonomy, relatedness, competence, and self-efficacy over the course of the study.

Observation With Descriptive Field Notes and Reflections

The purpose of the intervention was to implement a personalized literacy event to build student motivation in literacy. Throughout this instruction, there were opportunities for me to observe students' actions, make descriptive field notes of their behaviors, or document conversations. To obtain more thorough and accurate retellings of the interviews, I used audio recordings with transcription. I completed descriptive field notes for observations immediately following instruction, accompanied by reflective notes. This notetaking required thick descriptions of the participants, behaviors, setting, and dialogue to create accurate descriptions (Efron & Ravid, 2013). Note-taking was completed in a cloud-based, password-protected digital document to allow them to be easily organized.

Documents and Artifacts

I accessed various work samples and school records throughout the course of this study. For instance, all students' permanent records held important information regarding their disability status, educational impacts, attendance, family and cultural background, and bilingualism. These records also housed parent contact information and demographic information that was important in obtaining consent and painting an accurate picture of each individual.

Throughout the study and at the conclusion of the study, the students created (a) annotations while reading, (b) writing samples, (c) a final essay, and (d) a final project in the form of either a poster or identity box. Each of these items provided data relevant to self-efficacy, autonomy, relatedness, and competence.

Data Analysis Strategies

All qualitative data were transcribed, organized, and read thoroughly for immersion in the information. Thus began the analysis of the immense amount of qualitative data. Qualitative data collected on even a few participants leads to a vast amount of descriptive information. The purpose of this phase "is to make sense out of text and image data" (Creswell & Creswell, 2018, p. 190) and to "winnow aggregate data into a small number of themes" (p. 191).

In this multiple-case analysis, I analyzed each student–participants' data to identify patterns and themes. Then, all data were compared and synthesized in a cross-case analysis to determine themes in common across the group (Merriam & Tisdell, 2016). To identify similarities and differences among the data sources, I engaged in a method of computer-assisted cycle-based coding (Saldaña, 2016) to identify patterns in

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the multiple forms of data. Cycle-based coding involves iterative cycles of analyzing data. In the initial phases of coding or first cycle coding, the researcher becomes immersed in the data or what Merriam and Tisdell (2016) analogize as the trees. In second cycle coding, the researcher takes a step back to view the whole forest and identify emerging themes that cut across the data. The researcher constantly moves back and forth between first and second cycle coding.

More than one coding method may be used in the first cycle to gain multiple perspectives of the data. Some researchers begin with a set of initial codes. Some begin without any, allowing codes to arise naturally from the data. I initiated first cycle coding with concept coding and a priori codes based on my theoretical framework, which included autonomy, relatedness, competence, self-efficacy, and perception of literacy. As participants largely guided the direction of the research process, I used grounded coding, allowing for new codes to emerge and evolve from the data (Creswell & Creswell, 2018). Saldaña (2016) stated, "The child and adolescent voices are often marginalized, and coding with their actual words enhances and deepens an adult's understanding of their cultures and worldviews" (p. 106). Therefore, I adopted in vivo coding as the coding process continued to capture the student–participants' voices and perspectives. I used attribute coding, a grammatical method, to code demographics and other basic information about the research partners and setting (Saldaña, 2016). Table B.1 in Appendix B shows the coding methods used with each data collection tool in first cycle coding. The codes generated from the data were then used to identify recurring themes and patterns (Creswell & Creswell, 2018; Efron & Ravid, 2013). The key findings of qualitative data are presented in Chapter Four.

As the first cycle of coding progressed, I used Quirkos software to move the emergent codes into geographical locations on the Quirkos canvas, situating the concepts near or far from one another based upon their conceptual relation. I frequently revisited data sources as well to recode for new codes that emerged in later data sources. For instance, in early concept coding of initial interviews, I did not include the codes for the four sources of self-efficacy. However, I returned to each initial interview to code for these concepts. Revisiting data sources multiple times helped me see them from new perspectives each time.

Eventually, data from each student–participant began to reveal repeating codes that created a retelling of their experiences. Their codes allowed me to generate overarching themes, which then allowed me to identify answers to the research questions. It is pertinent to note that each participant's codes overlapped with one another, and no single participant's data responded to all research questions. Each student played a unique role in the findings of this study.

Pattern coding was used in second cycle coding to identify patterns that cut across multiple data. Eventually, codes began to overlap or repeat, which allowed me to generate themes and subthemes (Merriam & Tisdell, 2016). Creswell and Creswell (2018) recommended identifying expected, surprising, and unusual themes to ensure findings cover a range of perspectives. Identification of themes helped identify answers to the research questions. The first research questions and goal of this study was to describe the experiences motivation through the constructs of self-efficacy, autonomy, relatedness, and competence for adolescent students with disabilities engaged in personalized literacy instruction. The findings also revealed limitations in the study, and

information for future research. The study's findings generated new questions for further study and confirmation of past research.

Researcher Positionality

My previous experiences as a special education teacher and personalized learning coach led me to this research interest. Creswell and Creswell (2018) explained researchers cannot ignore the beliefs and worldviews they bring to a study, as it will undoubtedly influence each step of the action research process. Herr and Anderson (2015) further explained it is important to continuously question one's positionality and beliefs to "avoid the blind spots that come with unexamined beliefs" (p. 35). I acknowledged the beliefs I brought to the study would play a role in each decision and may not have always been in alignment with my students. I needed to remain vigilant and reflective to ensure my opinions were not forced upon my participants and that I left the direction of the study with my participants.

I was aware of subtle power dynamics that could subvert collaborative goals. The nuances of power relations and the time it took to develop collaborative relationships with student–participants likely played a significant role in the voices heard and decisions made. It was important to identify the role positions of power could potentially play in a needs-supportive, personalized environment where the student was in the driver's seat. This strategy included remaining cognizant of my role as collaborative partner and outsider. My descriptive notes and reflections of observations were critical to reveal these patterns. Power dynamics and insider–outsider roles could skew the interpretation of data, but the high participant engagement and use of member checking helped verify the accuracy of the data.

In action research, the teacher–researcher and student–participants come together to share in the creation of themselves. In other words, one's understandings of themself and one another became tangled and inseparable like vines. Rather than removing myself from the research, I had to engage in an intensive self-inquiry process whereby I claimed my own personal interests and motivations. This placed me in the study as a learner, embodied in the question, and acknowledging bias. Through personal reflective inquiry, my personal experiences and identity as a student played a role in my interpretations, and the way I interpreted the experiences of my participants.

Validity and Reliability

The connotations of validity and reliability are much different from a quantitative study seeking to generalize to populations outside the local context. Qualitative validity refers to the accuracy of the data, findings and inferences drawn from them (Creswell & Miller, 2000; Herr & Anderson, 2015; Merriam & Tisdell, 2016). Qualitative researchers generally agree on the methods used to establish validity, but the selection of those methods is determined by the researcher's approach and beliefs (Creswell & Miller, 2000). Therefore, my approach as a qualitative researcher and social constructivist beliefs influenced the methods I employed to establish validity.

Beginning in the initial phases of study, I began engaging with a small group of critical friends and an advisor who provided and consistently supported my journey. I also thought deeply about my involvement and bias in the topic and maintained thorough reflections throughout the study to identify ways in which my thoughts and interpretations may have influenced the course of study. My research included multiple sources of information and multiple methods of data collection, which I used to produce

richly detailed descriptions. Using computer-assisted coding and other technology throughout the study further supported transparency and accuracy of data collection and analysis. As information was collected and themes were identified, I searched for confirming and disconfirming evidence (Creswell & Miller, 2000). Throughout data collection and analysis, I used member checks to engage my student–participants in determining the accuracy of my emergent findings. This was arguably one of the most important methods of validity to include in my study, as only my student–participants could judge the truth of their stories.

Qualitative reliability is the consistency and stability of the data throughout the study. I began by immersing myself in and embodying the research question. It could have been easy to lose sight of the research topic as readings brought up tangentially related topics of interest. To ensure the study remained focused, the research questions were embedded in my observation journal and coding structure. This also protected the research from code drift by ensuring codes and meanings behind them remained on topic and in alignment with one another. As stated before, the goal in action research is not generalization. However, thorough and accurate documentation specific to the context and throughout the process "is the hallmark of good qualitative research" (Creswell & Creswell, 2018, p. 202).

Summary

The goal of this chapter was to provide a detailed description of the research methods that were used to explore the research questions. The problem, research questions, and intervention of this action research study were built upon Deci and Ryan's (2017) SDT and Bandura's (1997) self-efficacy. Methods aligned with multiple-case

study were outlined to explore the research questions in their natural setting. The data collection and analysis methods, school setting, and student–participants were carefully described. Finally, this chapter specified methods of validity and reliability the teacher–researcher used for the study.

Chapter Four: Findings

The problem of practice in this action research study was the lack of and decline in motivation experienced by adolescent students with disabilities. According to Deci and Ryan's (2017) SDT, situations that support autonomy, relatedness, and competence to facilitate intrinsic motivation. Furthermore, beliefs of self-efficacy provide individuals with a sense of capability or confidence to enter a challenging task (Bandura, 1997). Because the problem of practice is rooted in motivation, SDT and self-efficacy provide a targeted theory for grounding the intervention. As such, students' experiences with self-efficacy and aspects of motivation were investigated through multiple-case study analysis using the following research questions:

Research Question: How do adolescents with disabilities experience motivation for literacy, as defined by the psychological needs of self-determination theory, in the context of a personalized learning special education classroom?

Subquestion: How do adolescents with disabilities demonstrate self-efficacy for literacy in the context of a personalized learning special education classroom?

The cases of study were sixth and seventh grade students with disabilities that impacted their literacy performance. Three students (i.e., Kaylin, Tristan, and James), voluntarily participated in the entirety of this action research study. Each of the students attended my 50-minute 2nd period special education class. Prior to, throughout, and

following the project, I collected data to investigate aspects of motivation and self-efficacy. I conducted interviews, collected artifacts, reviewed school records, and took notes of observations and reflections.

The intervention unfolded over the course of the school year in gradual phases in response to the students. I used personalized learning design elements (Basham et al., 2016) as a reference of needs-supportive strategies throughout the intervention. The personalized learning design elements included (a) instruction in and tasks supporting self-regulation; (b) transparent, continual, and actionable data; (c) a cycle of feedback; (d) learner voice integrated in the experience; and (e) choice in learning and demonstrating understanding. The intervention progressed from building a sense of community by supporting students' need for relatedness and folding in student autonomy gradually over time. The classroom shifted from teacher-led to student-centered. Therefore, the intervention also evolved, focusing on students' literacy motivation, competence, and self-efficacy in the context of a literacy event (Street, 2003). This incorporated the gradual release of responsibility framework (Fisher & Frey, 2013) and transactional reading theory (Rosenblatt, 1985). The sum of the intervention was designed to boost self-efficacy (Bandura, 1997) and provide support for all psychological needs, as defined by Deci and Ryan (2017), thus building student motivation.

This chapter provides a thorough account of the data collection and analysis processes I used to arrive at the findings in this chapter. The following section provides a brief introduction to the student-participants and chronological account of the intervention.

Intervention

Creating a Space

My first action item was to organize our learning space for a range of learners and learning to provide an environment to support student autonomy, relatedness, competence, and self-efficacy. In August of 2021, prior to beginning of the school year, I was assigned a small, outdated classroom. The only update made to the classroom since the 1980s was a digital display board. The room had bright fluorescent lighting, a large wall-mounted chalkboard, frosted windows obscuring views to the outdoors, and five student desks with chairs secured to them. There was no shelving in the classroom. The room felt unwelcoming and dreary. After some discussion with administration, I was able to secure a new and much larger classroom space. Kallio and Halverson (2020) researched the design characteristics of personalized learning environments, described as needs-supportive, student-centered spaces where autonomy plays a lead role. They identified that securing new spaces is one of the top priorities in building student autonomy. Securing this new classroom allowed for more creativity and flexibility in the physical design suited to students' needs and interests. This was a critical first step in placing students and their needs at the center of the design process.

Prior to my students' arrival in August and into the first weeks of instruction, I prepared for instruction by reviewing students' records. Based on a review of academic records that included the Measures of Academic Progress (MAP), psychological evaluations, previous IEPs and reading record data at the beginning of the study, I learned that all student–participants were comprehending reading at or below fifth grade level, below their grades of enrollment. MAP is an assessment created by the Northwestern

Evaluation Association (NWEA). It is one of the most widely used and referenced assessments in K–12 education and is conducted in the fall, winter, and spring of each school year. The assessment is computer-based and adaptive, resulting in a Rasch Unit, or RIT score, that identifies an estimation of the test-taker's instructional level. These data were helpful when creating appropriately challenging literacy content and identifying aligned instructional strategies for the students. Use of multiple data sources and aligned instructional strategies is part of supporting students' basic psychological need for competence (Deci & Ryan, 2017).

Before students arrived in August, I continued to prepare our new space with furniture and arrangements that would support various learning needs. Kallio and Halverson (2020) explained that the integration of learner and educator voice into the redesign of physical learning spaces is another priority for building student autonomy in a needs-supportive environment. I began this process by imagining the learning scenarios my students would require throughout the year and then gathering a variety of unclaimed furniture from unused classrooms in the building to suit those scenarios. I arranged our furniture into four separate areas around the room, consisting of a library, project table, small-group guided instruction area, and partner work desks. The library area included a rug, soft sofa, beanbags, side table with a lamp, and shelves with a variety of books. At the front of the room, there was a digital display board and whiteboard, with six desks arranged in a semicircle facing the board. I intended this for direct instruction, discussions, and mini lessons. I outfitted the partner work area with three individual desks and wobble stools, situated in a small group.

Laying the Foundations

As the new academic school year began in August 2021, I met my small group of students, which included Kaylin, Tristan, and James, my student–participants for this action research study. Each student was identified as having a disability that impacted their performance in literacy. Kaylin was a sixth-grade young woman who received special education services due to a learning disability in reading fluency. She was outgoing and friendly, and often eager to participate in instruction. Her motivation did not immediately appear to be a concern. However, later in the study, her motivation appeared to be influenced by her need to be heard and included in decision-making, making her a significant participant in the study. For example, Kaylin explained in her interview her disappointment in her lack of choice in her middle school placement. As the study progressed and she was included in the decisions in the classroom, such as the classroom arrangement, her feelings about school became more positive.

Tristan was a seventh-grade young man who received special education services due to a learning disability impacting his reading comprehension. I noticed in the first days of school that Tristan disliked writing so intensely that he cried and put his head down during times the class worked on written work. He was immediately a case of interest in this study due to his lack of motivation for writing.

James was a sixth-grade male student diagnosed with autism, anxiety, and attention deficit hyperactivity disorder (ADHD). As I interacted with James in the first weeks of school, he seemed to engage in literacy tasks only out of compliance, but with no enthusiasm. He read the words of a text but not the meaning and became upset when

he needed to create his own ideas for writing. Later in this chapter, I will explain, James' case developed in an unexpected way.

Kaylin, Tristan, and James each showed varying levels of motivation and enthusiasm for literacy tasks. Furthermore, they all had difficulty with cooperative problem-solving strategies and did not deploy appropriate coping mechanisms when frustrated or angry. Therefore, it was my priority to work with the group to create strong relationships to build networks of self-efficacy and a sense of competence.

Early in the school year, during the process of building relationships, the students and I used daily meditation, open communication, and positive affirmations as strategies to build students' confidence and support their need for relatedness. I noticed the students entered our classroom with varying moods and energy levels each day, some still talking to one another about disagreements that had occurred earlier in the day. Therefore, our first activity each day was a two-minute calming meditation. With time and practice, the meditation time gave students a time to process lingering thoughts and helped the group become calmer as they transitioned into literacy work. James also began requesting meditation as a coping tool when he became upset by thunderstorms or teacher absences. Students also learned how to navigate social problems and emotions using effective communication with themselves and others. For instance, I provided them with sentence stems (e.g., "I felt *blank* when you *blank*") to use with their peers to communicate their feelings, which helped them confront and solve problems. Kaylin had a few disagreements with peers, stating on one particular instance, "I felt betrayed when you told everyone that secret."

In response and to further bolster students' confidence, I had students generate a list of ten positive affirmations (e.g., I am intelligent, I am brave) for themselves and read them silently before tests, such as the MAP. Coping and problem-solving practices became tilled into our soil early on, so it was rich with nutrients and provided strength and security for our roots to spread. Just like actual tilling, the work of building community was labor intensive, but well worth it.

At the beginning of the school year, it was also important to establish routines that created a structure for ongoing relationship building. I conferred, or met with, with each student at least weekly. This structure provided a dedicated time for honest feedback between student and teacher. These conferences were a valuable source of insight on learner interests and learning successes and challenges. Self-advocacy was a recurring discussion during conferences, especially for Tristan. As students with disabilities become more aware of the strategies that are successful for them, it is important for them to independently advocate for themselves and their access to those strategies. At the beginning of the year, Tristan did not request assistance from teachers and, upon receiving a low grade on a test, even sent an email to the teacher simply stating, "I hate you." In one conference, Tristan expressed that he had trouble remembering which accommodations or strategies he could request. When I asked him if he had any ideas for ways we could solve that problem, Tristan decided he should carry a list of accommodations as a reference. This helped Tristan navigate more successfully and confidently, with Tristan requesting notes from teachers and also providing a social model for his peers.

Although there had been some early progress in building confidence and community, literacy instruction was not engaging during the first semester. My students visited our special education classroom for one 50-minute class period each day of the week to receive supplemental literacy instruction that supported, but did not replace, the general education curriculum.

In the first semester of the school year, I planned my literacy instruction to provide preteaching of the general education concepts with the goal of increasing the students' success with the concept when it was provided in the general education classroom. For instance, when the general education teacher planned a lesson on figurative language, I ensured I provided instruction on figurative language in advance of it appearing in the general education classroom. I was troubled, however, that the content became monotonous and disengaging, as I observed my students' continued frustration with literacy and lack of enthusiasm. Their verbal and written responses were short, uninteresting, and completed as quickly possible, as if simply to be finished. Furthermore, students were reluctant to respond to questions, share ideas, or ask questions in their general education class, despite prior instruction on content. Noticing significant challenges to motivation and literacy progress, I searched for ways to integrate more authentic literacy experiences to increase motivation, engagement, and achievement.

Bringing Students to the Center

In January 2022, I launched into the group's personalized literacy intervention with the goal of building each student's motivation. I decided to instill a sense of autonomy by gathering student input from all participants regarding classroom spatial

arrangement. I posed the question, "Where do you really love to be when you are reading, working, or studying? Where are you most at peace?" Students eagerly responded: "in bed," "under lots of fuzzy blankets," and "at a coffee shop." As the ideas tapered off, Kaylin asked, with a tone of incredulity to her voice, "So you want us to help decorate the classroom?" The artist in her seemed excited, but it was apparent from her tone and the group's perplexed expressions that they were shocked they would take part in this.

After a few moments, their excitement overwhelmed their hesitancy. The group decided to create a coffee shop area of the classroom with comfortable seating, string lights, complete with a kettle for hot chocolate and green tea. In their redesign of the classroom, students also asked me to add pleasant smells to the room and a café area. These were added near the library area. Many students who were not part of the study who visited the room would frequently request to join the class or give compliments on the room design. Incorporating and honoring student voice in the redesign created a more student-centered space.

I followed up the library redesign by giving students more autonomy in the instructional design process for a novel study, with the aim of developing the study into an engaging literacy event for the students. Street (2003) asserted that a wide variety of text is everywhere the world is, thus, all activities are mediated by some form of literary text. Literacy events are, in essence, the context in which individuals interact with a mediating text. In this case, the novel became the mediating text and annotation, peer discussion, and teacher prompting became literacy practices woven throughout the event.

The first step in the novel study was a book tasting. I gathered four different novels based upon the student–participants' learner profiles, including their interests,

reading levels, and cultural backgrounds. This helped bring the students into the planning process. In obtaining student voice and giving them a choice in the planning phase, I intended to increase their sense of ownership in the learning process. They each had a wide variety of interests, such as anime, gaming, sports, art, travel, and ballet. I placed the novel sets into stacks in different areas of the classroom and told the student–participants we were having a book tasting, as if the novels were small snacks to sample. The students rotated from novel to novel, sampling each one, looking inside, reading the back, looking for illustrations, identifying what genre each book may be. At one point Kaylin said, "I'm not sure if I like *Bridge to Terabithia* or *Origami Yoda*. I kinda wanna read both!" Meanwhile, Tristan began thumbing through the novel *The Strange Case of Origami Yoda* and said, "Oh, this one has pictures! It's like comics." James sat disengaged, awaiting assistance. After the students finished sampling the novels, they independently ranked the novels. I used these rankings to select the novel for study. I predicted that *The Strange Case of Origami Yoda* would have been their first choice because of its game-like appearance and familiar characters, so I was surprised when the student–participants ultimately selected the book *Bridge to Terabithia* (Paterson, 1977) as their top choice.

Building Personalized Literacy Practices

Before designing the next phase of the novel study, I needed to use information about each student's reading abilities to determine how they would engage with the text. Each student in this study had a disability that impacted their literacy. Therefore, the process of reading alone could be an immense undertaking that required all their attention. For instance, Kaylin had difficulty with reading fluency and word attack, so she

often dedicated a great deal of attention to figuring out words while reading. This impacted her overall comprehension because she applied faulty decoding strategies or became so consumed by the decoding process that she was unable to transfer the author's message from working to long-term memory. Tristan and James both had difficulty monitoring whether they understood large portions of texts. Rather than pause to ask questions, they each plowed through pages at a time with little difficulty decoding but were unable to recall the most important information and themes. Despite the range and variety of reading abilities, each student demonstrated difficulty comprehending the information and truly engaging with the text.

During the novel study, I provided instruction on annotation strategies to provide students with a foundation of self-efficacy and encourage them into a transaction with the text (Rosenblatt, 1985). The goal of annotation was to provide the student–participants with an accommodating support for not simply recalling texts but engaging with them. Rosenblatt's transactional reading theory posits that texts are simply words on the page until the readers, who bring various, personal backgrounds to the event, build meaning from the words. According to Rosenblatt (1985), students build the most meaning from texts when they discuss them with others because they then hear various others' personalized perspectives of the same portions of text. Therefore, with the teacher acting as facilitator to guide students in the direction of appropriate interpretation of texts, annotation became a personalized, literacy practice (Street, 2003), or strategy, to build meaning from the text throughout the novel study.

Recognizing that annotation was new and added a layer of challenge to reading, I structured the unit to include a gradual release of responsibility (Fisher & Frey, 2013). I

taught the students the procedure of annotation by first providing students with explicit instruction on the purpose of annotation and how it would be beneficial. I modeled reading chapter 1 of *Bridge to Terabithia* (Paterson, 1977) out loud, pausing after each page to ponder and then record about the main idea of each page. I asked out loud, "I wonder what the most important part of that page was?" or "That was a neat part, but I guess it was not as important as [a specific topic]" As the group observed and followed along, I prompted them to record the annotations I wrote, but encouraged them to use their own phrasing, too. Throughout chapter 1, I noticed growing confidence in the procedure, especially in Kaylin, as she looked up and volunteered her ideas at the end of each page.

As the group progressed into chapters two through four, I followed Fisher and Frey's (2013) framework of gradual release of responsibility, fading teacher-directed instruction and encouraging more group participation with guided practice. The reading was completed out loud by me and various group members, with equal participation. I decided to keep the focus of the annotation on identifying the main idea because this level of understanding would help prepare them to engage with the text on deeper levels with their peers in future chapters. During this guided practice phase, I did not immediately provide the annotation to the students. Instead, I asked for volunteers after each page of reading and provided them with prompts to jog their thinking as they generated their own annotations. Those questions included: (a) What is the most important topic from this page? (b) What is something very important that we just learned? and (c) Was that a main idea, or just a little detail? I requested the student-participants to share their ideas for annotations and prompted them to record them to

support their growing independence. I waited for a longer period of time before writing my own or a student's annotation on the board as well, which allowed me to see that Kaylin and Tristan were confidently writing their own without a model, but James continued to wait for one to appear. Several examples of students' annotations are provided and discussed in further detail in later sections.

I responded to Kaylin's and Tristan's increasing competence and confidence by giving them increased challenge and the opportunity to work with one another. With their growing confidence and deeper understandings, Kaylin and Tristan began reading and annotating together. When they worked together, they were able to help one another find appropriate stopping points to make various types of annotations, as opposed to stopping only at the end of every page. I showed them how to make more diverse annotations, including questions to interrogate the text. For example, I prompted Kaylin and Tristan (a) "What do you think the author is trying to make us feel?" (b) "What do you think the author or characters really meant?" (c) "What kind of words did the author use here that made you feel that way?" (d) "This part made me wonder. . . ." As the novel progressed, Kaylin and Tristan asked particularly good questions, especially when they did not understand, had little background experience, or disagreed with a character's behavior. For instance, when a character died in the novel, Tristan observed in his annotation the grieving process, noting, "I don't think Jess is really mad [at his family]. I think he's going through the phases when somebody dies." Kaylin also asked in an annotation, "Why was Jess so mean to everyone after Leslie passed?" Even with increasing challenge, Kaylin and Tristan experienced a growing sense of motivation as they engaged with the text and one another, whereas James continued to have difficulty.

I had not initially anticipated that James would encounter such great challenge in identifying main ideas. His case provided an example of the need to pivot quickly to provide strategy instruction targeted for student need. James needed additional scaffolds to experience self-efficacy with annotation. He frequently stated during interviews and instruction that annotation was "tricky" and "challenging," and that he did "not like challenging work." Observing this significant challenge, I worked individually with James on identifying the main idea. In the troubleshooting process, I had James read to me, I read to James, and I paused at more frequent points in the text to ask him questions and clarify information we read together. He became particularly upset, furrowing his brow and said, "I can't think of it! I can't find it! Where is it?" Seeing his agitation, I thought for a moment and then pivoted to ask him about the meaning of some words in text, many of which he said he did not know.

Nearly halfway through the novel, I personalized James' goal for annotation to identify unknown vocabulary words. He did not pause to identify unknown words while reading, but instead preferred to read, have a predetermined stopping point (e.g., the end of a chapter), then go back to locate unknown words. After approximately 3 weeks of practicing this routine, James' mother stated during a phone conference that James began to practice this at home, unprompted. He began a book study in his general education classroom within 1 week of completing this book study and immediately, without prompting, used sticky notes to annotate unknown words while reading. I worked individually with James to help him develop an understanding of the vocabulary words he listed in his annotations. I often provided synonyms and examples of the words in stories to help James grasp the words meanings. Sometimes, he understood them quickly,

but other times, he continued to show confusion. As he learned the words, I encouraged

him to use them in his writing and speaking whenever possible. When James took the

MAP in reading in April 2022 after the close of the novel study, his lowest instructional

area in reading was vocabulary, and this was significantly lower than all other areas of

reading. Therefore, weaving more explicit vocabulary instruction into reading was an

appropriate target for James. Although James' MAP score did increase, he experienced

below typical growth, according to nationwide norms gathered by the NWEA. In

reflection, his annotation and vocabulary routine should have been altered so James and

his teachers could identify the vocabulary words in advance of reading. This would afford

him the opportunity for vocabulary instruction ahead of reading unknown words in

context, likely increasing his overall understanding of the text and self-efficacy. James'

experience emphasized the importance of using ongoing embedded assessment to drive

flexible instruction. This enabled James and I to hone his strategy instruction and make it

more manageable. Findings presented in subsequent sections detail each student's

progress, or lack thereof, in comprehension abilities through the use of annotation.

Culminating Project

At the conclusion of the novel, students completed a culminating project that

allowed them to demonstrate mastery using multiple, personally relevant methods,

thereby appealing to their motivation. When I initially told the student–participants they

would complete a project, their shoulders went down and some sat back in their chairs,

looking apprehensive. They were not enthusiastic. However, their faces brightened after I

shared an exemplar. I presented my own decorated box with five objects tucked inside. I

explained to them why I had chosen each object and how those represented me or

important parts of my life. I further explained why I chose the box and its decorations. As the students saw my project, it helped them understand the goals of the project.

The student–participants began by choosing their preferred method of project creation (i.e., poster, identity box, website). I explained that they had 1 week to make a final selection of their preferred presentation method or to propose something not listed. Students can view due dates as an external control and can they be demotivating. Therefore, I gave the students a rationale for them, stating simply that I needed their final decisions to create a shopping list of their project materials. In the meantime, the students identified their objects and created a type-written essay to explain how those objects were symbolic in their lives. Next, each student–participant created their physical project, with all students choosing either a poster or identity box. They used many materials to make their projects, such as paint, Mod Podge, glitter, glue, magazine cut-outs, and markers. Finally, each student–participant presented their project and provided one another with constructive feedback on their presentation. No student chose to record their presentation in advance, as opposed to live presentation. Throughout the process, I conferred frequently with the students to monitor, provide feedback, and adjust deadlines. We often discussed how they were doing on reaching long-term goals based on short-term goal attainment. These individual and small group conferences created a cyclical feedback loop that supported student autonomy and ownership of the learning process.

Throughout the intervention, I documented field and reflective notes, and collected and analyzed ongoing data from student–participants. A cyclical data analysis process allowed me to describe each student–participant in rich detail and address each

research question. The following section provides a general overview of the analysis process and findings, followed by case-by-case descriptions.

General Findings

I conducted qualitative data analysis alongside data collection. In first cycle coding, I used concept coding and in vivo coding. I expected to find concepts of autonomy, relatedness, competence, self-efficacy, and perceptions of literacy present in the students' descriptions, but also allowed for other codes to emerge in the coding process. I eventually had an overwhelming number of codes. Therefore, I adopted pattern coding in the second cycle of coding by (a) reviewing all concept and in vivo codes, (b) merging those that were similar, (c) identifying patterns that cut across the data, and (d) locating those codes that were unique to individuals. As evident from Table B.2 in Appendix B, the number of codes decreased from the first cycle to the second cycle of coding. By identifying patterns between concept and in vivo codes that occurred across the data, I was able to create a thematic framework (see Table B.3 in Appendix B), in which I grouped concept and in vivo codes into five overarching themes. The top three were self-efficacy at 93 quotes coded, autonomy at 69 quotes coded, and competence at 35 quotes coded. I was careful to look at the context of each coded quote to ensure they were sorted into the most appropriate themes. The process of coding, recoding, and theming the data was a recursive process and took several reads of each data source to arrive at the findings presented in this narrative.

It is critical to clarify how self-efficacy and competence were coded because of the similarity in these concepts. Self-efficacy included the three subthemes, (a) traits of self-efficacy, (b) predictability, and (c) the four sources of self-efficacy. It was important

to relate each of these subthemes under the theme of self-efficacy, yet also distinguish them from one another because of their functions and importance in theory and each case.

Competence was coded across participants and appeared related to having traits of self-efficacy. As self-efficacy is perceived ability to achieve (Bandura, 1997), competence is the actual ability to do so (Deci & Ryan, 2017). Interestingly, Kaylin, who exhibited positive traits of self-efficacy, did not provide much evidence in her interviews of actual competence. However, her grades and test scores attested to her actual competence. James and Tristan, on the other hand, had fewer traits of self-efficacy and provided more quotes indicating a need for competence in their data sources. In line with lower self-efficacy, their grades and test scores evidenced that they lacked access to mastery and that their need for competence was not fully supported.

As I analyzed the way these themes appeared across each student–participant, it became apparent that there were overlaps and relationships between each theme. All constructs of SDT and self-efficacy were important themes across cases. Therefore, these are the main topic of descriptive findings, providing structure to each case. The following section provides a more thorough explanation of the cross-case themes as experienced by all student–participants. The analysis provides a detailed description of each student–participant to support the thematic framework. By weaving the data from each student–participant together, I attempted to answer the research questions of this study.

Findings by Student

The following sections provide a general description of each student–participant, followed by an in-depth description of the themes that emerged from their data. Each case description directly connects the student–participants' data to the research questions

and offers a possible connection to prior research and theory. The research questions were as follows:

Research Question: How do adolescents with disabilities experience motivation for literacy, as defined by the psychological needs of self-determination theory, in the context of a personalized learning special education classroom?

Subquestion: How do adolescents with disabilities demonstrate self-efficacy for literacy in the context of a personalized learning special education classroom?

It is worth noting that Kaylin and James spoke at great length in their interviews, much more than Tristan. Therefore, the number of repeated codes in Kaylin's and James' interviews was higher than Tristan's. Also of interest, James also spoke at length, but the concepts coded in his interviews were vastly different from his peers. The theoretical constructs of autonomy, competence, relatedness, and self-efficacy provide a common structure for describing, in-depth, each of the students' cases.

Kaylin

Kaylin was a sixth-grade, biracial or African American and White young woman. She received special education services due to a learning disability in reading fluency. Kaylin demonstrated a relative strength in reading and listening comprehension but had difficulty using word attack skills and reading with appropriate prosody when reading aloud. She had transitioned well into her sixth-grade year at a new school. She was outgoing and friendly. She was quick to share during instruction and thought deeply about texts, which helped drive group discussions forward. At first, she seemed to search for ways to contribute and find her place in her new community. She occasionally socialized with others but did not have enduring friendships. She had several short-lived,

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turbulent friendships, fraught with disagreements and difficulty resolving them independently and peacefully. By the close of the study, Kaylin established relationships and expressed her desire to stay at the school until high school graduation.

Kaylin's case touched upon all aspects of the research questions and constructs of the theoretical framework. The most prevalent themes coded in all of Kaylin's data sources were autonomy (41) and self-efficacy (40). Autonomy overlapped most with the concept code of student voice. Kaylin's case allowed me to draw tentative conclusions based in theory and connected to prior literature. These findings connected to both self-efficacy and self-determination theory, providing tentative responses to each component of the research questions.

It was difficult to isolate the constructs of autonomy and self-efficacy in Kaylin's case, and both seemed connected to the other. Learners who describe themselves as confident and independent, like Kaylin, typically enjoy having voice and choice (i.e., autonomy) to exercise their independence. Therefore, Kaylin's experience with needs-frustration and needs-satisfaction seemed connected to her strong sense of self-efficacy.

Self-Efficacy. I coded self-efficacy 40 times in Kaylin's data sources. The theme of self-efficacy contains three underlying subthemes: (a) predictability, (b) traits of self-efficacy, and (c) sources of self-efficacy. Kaylin exhibited a great deal of traits of self-efficacy, such as confidence and persistence. She provided evidence of self-efficacy in interviews, student work samples, and observations. Kaylin experienced increased reading enjoyment over the course of study, possibly due to decreased pressure to read aloud and increased autonomy-support. The most prevalent in vivo code in Kaylin's interviews was "smart and never giving up," which is synonymous with the trait of

persistence. This code falls into the subtheme of traits of self-efficacy. In her initial and closing interviews, she described her previous success in overcoming reading difficulties, which contributed to her ongoing growth.

In the following excerpt from the initial interview, Kaylin described her feelings of confidence in reading:

Interviewer: Is [reading] something you feel really confident at doing?

Kaylin: I feel confident of like drawing, but that's it.

Interviewer: But not reading?

Kaylin: Oh yeah. Reading. But I'm not confident reading out loud.

The interview continued as the interviewer asked, "Yeah. So, do you practice the reading a lot and then do you practice reading out loud a lot?"

Kaylin: No, not really.

Interviewer: Okay.

Kaylin: I used to in elementary school. I really loved to read out loud. I used to. But then when I started getting older, I stopped.

Interviewer: Why do you think?

Kaylin: I don't know. To me, it felt like it was embarrassing as I was getting older.

Interviewer: Yeah. I wonder what that's all about. What makes it embarrassing?

Kaylin: I really don't know. It just to me, it feels like you get nervous when you have to stand up because in my school I had to stand up and read out loud.

Further, the interviewer asked Kaylin, "Do you get nervous because of what you'll think of yourself or do you get nervous of something else?"

Kaylin: Of something else.

Interviewer: What is it? Do you want to tell?

Kaylin: I guess, for me, a feeling that people don't think I can read.

Interviewer: So it's other people?

Kaylin: Yeah.

This exchange from Kaylin's initial interview revealed that her reading enjoyment was also shaped by her lack of confidence, a perception that was socially constructed. According to observations of Kaylin, she frequently became nervous and stumbled over words when she read out loud, which made her giggle in embarrassment.

By the end of the study, Kaylin's description of herself as a reader changed. Instead of referring to her previous struggles negatively, she described them as a triumph that instilled her with persistence. In the closing interview she stated, "When I was little, I really wanted to quit at reading because I'm not good at reading. But when I tried again and again, I think I'm good at reading. I'm good at reading, very good." In this example, Kaylin spoke in the present tense when she said she was "not good at reading." However, she was referring to her feelings about her past and about being a poor reader. Although Kaylin frequently made errors in tense, including those that were inconsistent with dialect, these errors were easily understood in context and with clarifying questions. Evidently, Kaylin had experienced difficulty in reading in her past, but her experiences with reading successfully had allowed her to build a sense of self-efficacy for the subject.

Autonomy. I coded autonomy 41 times in Kaylin's data sources, overlapping most frequently with the concept code of student voice. In Kaylin's case, evidence of autonomy was available through interviews. In Kaylin's initial interview, she described

situations in which she had limited voice and choice. For instance, in the following exchange, she provided the idea of school as an example of a forced choice. She said, "I'm not trying to be rude, but I really didn't want to go to this school, but I had no choice because I didn't want to go to a military school." Furthermore, Kaylin stated, "The military school invited me to go there, but I didn't really want to go there. I wanted to go to [school name]."

Kaylin was aware of her limited autonomy in the beginning of the study, but her autonomy and satisfaction grew through deliberate integration of voice. The concepts of voice and choice were intertwined in Kaylin's interviews, and it was apparent she valued having input in the creation of a safe space where everyone's voice was heard, and emotional support was a priority.

In Kaylin's closing interview, she added to previous classroom discussions to share ideas for ways to improve the classroom design. She asked for more books, bigger bookshelves, and positive affirmation posters. When I asked her to design a logo for the classroom library area, which the students dubbed Starbooks, Kaylin asked, "How about we can put the rainbow in the background and we can ask other people what's their favorite color? That's why they won't miss out. And then we can put the colors on the stars." During this same interaction, Kaylin said with enthusiasm, "I'm so happy that I'm coming back here." This statement shows Kaylin's need for autonomy in the classroom was supported, nourished by voice and choice. This statement also shows that relationships may interact with Kaylin's sense of autonomy, which is explained in further detail in the followed section.

Relatedness. Kaylin's experience with relatedness was evident in interviews and writing samples, with 15 coded quotes. In Kaylin's initial interview at the beginning of the study, she explained her ideal classroom to me as the interviewer, stating, "The important part about a classroom is that you need a place." She clarified to explain that everyone needs physical space in the room. Evidently, her description of the perfect classroom was disconnected from her peers at the beginning of the study. She shows evidence of change in the closing interview though. Kaylin pondered about how to create a logo for the classroom reading area. She asked, "How about we can put the rainbow in the background and we can ask other people what's their favorite color? That's why they won't miss out. And then we can put the colors on the stars." This quote provided evidence of both autonomy and relatedness, as it shows Kaylin's value for input and choice (i.e., autonomy), but also her desire to include her peers (i.e., relatedness). In requesting to involve her peers in her logo design without teacher encouragement, Kaylin demonstrates her growing bond and sense of community with her peers.

Competence. Competence was coded five times in Kaylin's data sources. The Figure 4.1 shows an example of Kaylin's annotations from chapter one of *Bridge to Terabithia* (Paterson, 1977). The data show Kaylin's simple summary statements in her annotations at the beginning of the novel study. These required Kaylin to recall information the group read in the novel, a task that she performed correctly.

Chapter 1

- Jess likes running and wants to be the fastest runner in 5th grade
- Jess has a big family, including a little sister May Belle who adores him
- He lives on a farm and has lots of chores
- His elementary school doesn't have lots of supplies
- Jess' older sisters begged for money for school supplies and went shopping
- There was a moving truck at a neighbor's house

Figure 4.1 Kaylin's Annotations at the Beginning of the Novel

Figure 4.2 gives an example of Kaylin's annotations from chapters eight and 13, at roughly the middle and end of the novel study. By chapter six, I encouraged Kaylin and Tristan to work together in reading and making annotations. As they continued to work together, their annotations reflect the discussions they had with one another while reading and their growing comprehension abilities. In the Figure 4.2, Kaylin's annotations for chapter 13, show that she went beyond basic recall and made a logical inferential claim about Jess being king and then provided evidence from the text to support her claim. This is evidence that Kaylin's need for competence was supported as she demonstrated continual incremental improvements when given optimal challenge.

Chapt 8

- Leslie has lots of questions about God but not like in a rude way
- I think the author is makeing us wonder whats going to happen because they are talking about heaven and death.

Chapter 13

- Jess made a reath for leslie and it made him feel better.
- Jess didn't think he could be the king without leslie but he can. May belle came and almost fell in the water and jess was brave just like leslie would have been.
- I think May Belle is going to be the new queen.

Figure 4.2 Kaylin's Annotations in the Middle and End of the Novel

Kaylin's experiences across all areas indicated that she was in a personalized needs-supportive environment that increased her literacy performance and motivation. This aligned with both SDT and self-efficacy.

Tristan

Tristan was a seventh-grade, African American, young man. He received special education services due to a learning disability in reading comprehension and math applications. He demonstrated a strength in reading fluency, but had difficulty keeping his focus on the content of the text and monitoring for understanding while reading. Even though he had read the text accurately, he often had trouble recalling it, stating that he was distracted by other thoughts. Over time, I came to find Tristan had great difficulty with sustained attention and long-term memory. His difficulties in applying strategies to these areas impacted him across all subject areas.

Tristan greatly disliked writing and demonstrated difficulty with fine motor control. He used a cross-thumb grasp, typically seen in 3- through 6-year-olds. However, he sometimes reverted to an extended finger grasp, typically seen in children below 4 years of age (Edwards et al., 2002). This impacted his letter formation and muscle fatigue in his hands. Tristan completed significantly less written work than his peers and preferred not to complete any artwork when this was part of an assignment.

Tristan often became visibly frustrated in the writing process, putting his head down or even crying, but did not request help, read instructions, or locate a reference to guide himself. Careful observation of Tristan's challenges and frustrations early in the year made it apparent to me that he was greatly in need of access to mastery and self-confidence, aspects of Bandura's (1997) construct of self-efficacy.

The most prevalent concepts coded in all of Tristan's interviews were self-efficacy (18) and autonomy (14). Autonomy overlapped most frequently with the concept codes of clear expectations (two) and knowing what to expect (one), both of which were smaller concepts within self-efficacy. More specifically, both clear expectations and knowing what to expect were part of self-efficacy's subtheme of predictability. Tristan gave short responses and did not elaborate much on his responses in his interviews. Therefore, he had fewer codes than Kaylin and James. Tristan's case was relevant to all parts of the research questions and constructs of the theoretical framework. Therefore, his case allowed me to draw tentative conclusions in response to each component of the research questions.

Self-Efficacy. Self-efficacy appeared on 18 occasions in Tristan's observations, writing samples, and interviews. Tristan demonstrated task-specific self-efficacy,

particularly low self-efficacy for writing and relatively higher in reading. Tristan stated in his initial interview that he really disliked writing and that coming up with ideas was very difficult. He demonstrated difficulty with the writing process, producing significantly less than his peers. When presented with a writing task, Tristan exhibited low motivation and self-efficacy for writing by slumping down in his chair, generating and writing very few ideas to a topic, and crying when prompted to elaborate on his ideas. Tristan's self-efficacy for reading was relatively higher for reading than for writing. In his initial interview, Tristan stated that reading was his favorite subject because, "It is easy to understand." This was further evidenced by his willingness to read as a preferred independent activity, as opposed to engage in social interaction with his peers.

Tristan's statements and writing strategy usage sometimes indicated that he was overconfident and lacked strategies, exhibiting what Klassen (2002a, 2002b) called a miscalibration of self-efficacy. Tristan frequently indicated in observations and work samples that writing assignments were not very complex, and he rarely used strategies to guide him. He often submitted his assignments quickly or said he was finished earlier than his peers. He did not appear to be rushing to complete or move on to the new task. When I talked with him about his writing and pacing, he often responded in a chipper tone that he was not sure what else to do with his writing because he had "answered the question" or "finished writing the sentence." His tone and explanations made it evident that I did not make the instructions or task clear, and he was not using an appropriate strategy to experience success. I needed to pivot my approach with Tristan to address both issues.

According to my observations, Tristan demonstrated low self-confidence. As self-confidence is a trait of self-efficacy, I sought to boost this by providing him with sources of self-efficacy (Bloomberg & Pitchford, 2017). To help Tristan structure and expand his thoughts in his writing, I provided him with lessons on graphic organizers. Over the course of the year, I worked to create a structure for the writing process. I used text-structured graphic organizers done in advance of drafting, and explicitly taught editing and revising steps completed after the drafting. An example of Tristan's text-dependent analysis graphic organizer is included in Appendix C. The structure of this organizer was used consistently throughout the year to give Tristan multiple models and opportunities for practice. Providing a sequence to the writing process created a structure, but Tristan had difficulty relying on it when necessary.

While working on his culminating project near the conclusion of the study, Tristan skipped the planning process and immediately dove into writing sentences for his culminating essay. Figure 4.3 shows Tristan's thoughts at this point. I interrupted Tristan, asking him if he had used a planning strategy, to which he responded no and became visibly frustrated and sad. He slouched down, put his head down, and teared up. Clearly, Tristan still required support to navigate the writing process successfully to gain a sense of self-efficacy.
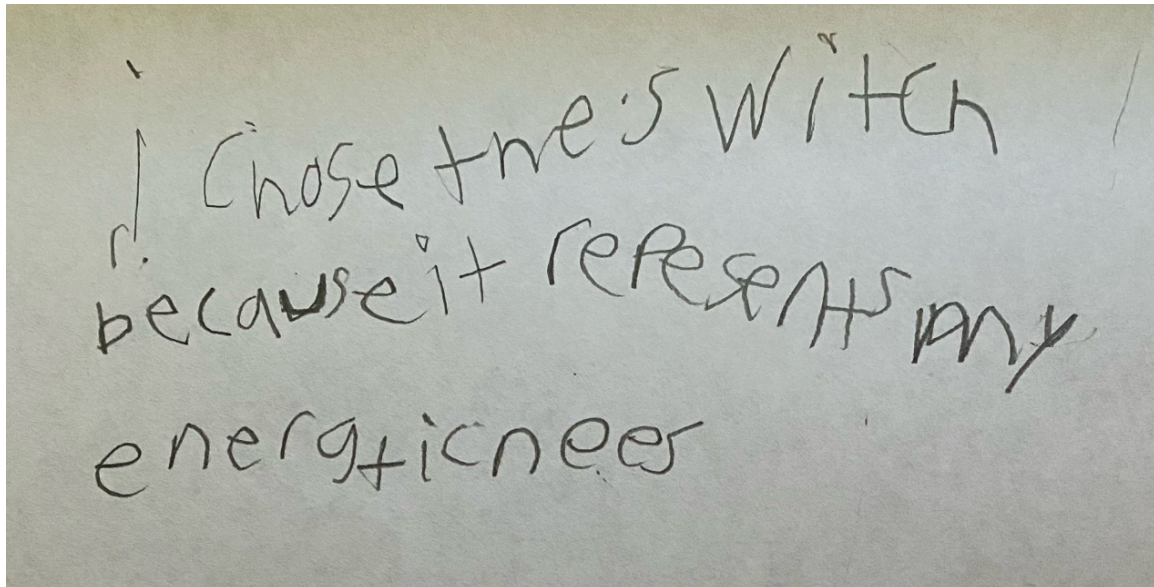
Figure 4.3 Tristan Beginning Culminating Essay

Tristan stated, "I don't know what to write because I don't have my objects." He sounded very frustrated and put his chin down on the desk. Evidently, Tristan had not yet mastered, or become competent in, the process of planning for writing. Therefore, his self-efficacy had not had the opportunity to build upon a mastery experience. Individuals assess their capabilities of previous tasks, which contributes to their efforts, persistence, resilience, thought patterns, emotional state, and understanding of accomplishment (Bandura, 1997; Zimmerman, 2000). Throughout the course of the study, Tristan experienced insignificant changes to his self-efficacy for writing, as evidenced by his continued difficulty and frustration applying strategies for planning his ideas. Tristan's lack of access to sources of self-efficacy, particularly enactive experiences, created a negative feedback loop in which he was not able to build self-efficacy or the traits of a self-efficacious learner.

Autonomy. Autonomy was coded 14 times in Tristan's data sources, overlapping most frequently with the concept codes of clear expectations (two codes) and knowing

what to expect (one code). These later became merged into the code predictability, which falls under the theme of self-efficacy. Therefore, self-efficacy and autonomy were entwined in Tristan's case.

In the beginning of the study, when asked what choices were available to him, Tristan provided examples of extrinsically controlled choices, such as whether to complete assigned work for a grade. In this example, Tristan provided an example of a forced choice, or a teacher-directed assignment that, if not followed, resulted in negative consequences that Tristan wished to avoid. Tristan did not list ideas of other choices, such as seat choice or assignment type that were available to him. According to observations throughout the study, Tristan consistently arrived in class and traded his traditional chair for a wobble stool.

Near the close of the study, Tristan had a choice in his literacy project. He was excited when I presented the choices to him and he initially stated with enthusiasm that he wanted to create a website. However, he changed his mind and settled on a poster. In the closing interview, Tristan explained that he changed his mind about completing a website because he did not know how to make a website. Offering him the choice allowed him to choose a method that would best demonstrate his understanding. Tristan benefitted from having choices made available to him, and they increased his sense of self-efficacy. In his closing interview, Tristan explained his feelings in reference to the type of project he chose to complete, stating happily, "it makes it more easier for me, because I know what to do if I chose the thing." Having autonomy also positively impacted Tristan's enthusiasm and engagement. However, these choices were not widely

available. Therefore, Tristan's need for autonomy, and thus self-efficacy, was not fully supported.

Relatedness. Relatedness was not a prevalent theme in Tristan's case. Based on observations, Tristan often worked independently at the beginning of the study. When the group became engaged in social interactions, he often preferred to read independently and quietly. Although reading is a positive use of time, he was disconnected from his peers.

Tristan became more connected to his peers as the study progressed. As the group developed a sense of community, Tristan and Kaylin discovered their shared interests in comics and video games. When he stole away to read quietly, Kaylin, a social butterfly, often looked over his shoulder and asked him questions about the comics he was reading. The shared interest blossomed into social interactions away from the text, creating a sense of belonging. Over time, he built upon his established relationship with Kaylin, eagerly working with partners and groups.

At the end of the study, I asked Tristan to tell me about his favorite part of the culminating project, to which he responded quickly and brightly that the presentation was his favorite because "everyone did a good job". His sense of enjoyment was socially situated, showing that he was developing or had developed a sense of belonging over the course of study. Tristan's experience with relatedness benefited his motivation and competence.

Competence. Competence was coded 10 times in Tristan's data sources. Figure 4.4 gives an example of Tristan's annotations from chapter two at the beginning of *Bridge to Terabithia* (Paterson, 1977). Tristan and the other students each provided very

basic summary statements after each page of the text at the beginning of the novel, as

seen his annotations for chapter two. His annotations in the beginning of the novel show

that Tristan was able to recall basic, but important, information from the novel.

Chapter 2

- Jess and the kids are canning beans and eating PB&J sandwiches.
- Brenda and Ellie aren't back from shopping.
- May belle wanted a new friend but sad that she was sad because they dont have a friend
- Jess was drawing
- Jess likes animals in problems
- Dad does not want him to be an artist
- Jess is in love with miss edmunds the music teacher
- Jess says everyone loves music
- They are in millsburg washington. Its not an accepting town
- Jess keeps his Art from his mom
- Jess wants art materials
- Jess is the only male except for dad
- Mom is mad at eli
- Jess was running and there was a person on the fence
- Leslie Bruce just moved in across the street and is the same age as jess

Figure 4.4 Tristan's Annotations at the Beginning of the Novel

Tristan's annotations from chapters eight and 13 of the book are shown in Figure

4.5, which show how his annotations improved over time. Tristan's thinking was moving

to higher levels of comprehension over the course of annotation process. He reduced the

quantity of annotations per chapter and increased the quality of annotations from the

beginning of the study. By chapter eight, his summaries were more condensed. By

chapter 13, he articulated a logical prediction and inference, which eventually opened the

door for analytical discussion on the theme of escape.

Chapter 8

- Jess family went to church <u>but</u> they don't go very much. I think they get really busy and can't go.
- Jess sisters are spoiled because they get new clothes just to wear to church.

Chapter 13

➢ Jess is not a coward anymore.
➢ Maybe Jess will bring Janice to Terabithia <u>so</u> she can be away from her house.
➢ I think he will keep Leslie alive by coming to Terabithia to talk to her.

Figure 4.5 Tristan's Annotations in the Middle and End of Novel

Tristan's low sense of self-efficacy suggested that he needed more access to tasks that were personally meaningful, encouraging him to become engrossed in challenging work. In spite of his insignificant changes to self-efficacy, he demonstrated evidence of positive shifts in relatedness, autonomy, and competence, which appear to have increased his literacy motivation and performance.

Tristan's descriptions provided some evidence of misaligned self-efficacy. His data explained that he required access to a wider variety of sources of self-efficacy to build traits of a self-efficacious learner and meet his need for competence. His descriptions also illustrated that access to choices boosted his sense of self-efficacy.

James

James was a sixth-grade, White, male student. He was diagnosed with autism and received special education services, applied behavior analysis (ABA) therapy services,

and language services to address his difficulties across all academic areas and social skills. He was also diagnosed with and received medications for anxiety and ADHD. James demonstrated significant difficulties with sustained attention, perseverations, and comprehension of content.

The most prevalent themes coded in all of James' data sources were self-efficacy (27) and competence (16). James' anxiety and need for emotional support set his case apart from other student-participants. His case was relevant to all aspects of the research questions, providing a unique response from other student–participants.

Self-Efficacy. In James' case, self-efficacy was coded 27 times, with underlying codes evidencing heavy need or desire for predictability (i.e., knowing what to expect and clear expectations). It is important to understand the underlying codes in James' case to retain the original meaning, in which negative emotions were connected to predictability. Prior to second cycle coding, negative emotion was a prevalent code in James' data, which overlapped most with the concept code of knowing what to expect. The most prevalent in vivo code in James' data source was "what's going to happen," which was synonymous with the code knowing what to expect. After second cycle coding, knowing what to expect and "what's going to happen" were collapsed under the self-efficacy sub-theme of predictability (18).

After observing James for the first few months of the school year, I noticed he radiated with anxiety. As a sixth grader, he was in his first year at the school, was not familiar with his teachers and peers, and had never participated in a period schedule. He looked at his watch frequently, packed up 10 minutes before the end of each class, rushed down the hall to get to his next class, and hurried out of the building at dismissal. In his

classes, he sat disengaged from instruction, but looked out the window at the weather or perked up when he was triggered by particular topics. James hated rain, particularly thunderstorms. If the sky appeared gray, he often became sad that it could rain during recess. When a teacher brought up the word test, James' body immediately tensed, his eyebrows furrowed, and he blurted out questions in rapid succession, "Is this a test? Will it be an assessment? Or a quiz? Will it be graded?" Occasionally, ladybugs or sugar ants found their way into a classroom. If he saw an insect, he called out and jumped out of his seat until someone, including myself, was able to convince him to be seated once again, at which point he would keep his eyes firmly fixed on the insect for the remainder of class. At lunch, he sat with his ABA therapist, looking around the cafeteria for his favorite teachers, who routinely dropped by to chat with him. Evidently, James' anxiety was consuming him.

In his initial interview, I encouraged James to discuss schedule changes which required his flexibility, but he resisted by showing a negative emotion or discussing his need for routines. When I asked James how he felt when his schedule changed, James showed discomfort by slowing down his rate of speech, hesitating between words, avoiding the topic, and changing the topic completely. He stated, "I like when I have a schedule, but my schedule isn't. . . . But next I'm going to have . . . I like having house parties." After repeated analysis of his interview transcripts, it became apparent that his perseverations and emotive responses to my attempts to steer conversation were his way of seeking out comfort.

It appeared, after multiple reviews of James' interviews and reflections upon observations of James, that predictability gave him multiple sources of self-efficacy. This

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aligned with Bandura's (1997) theoretical proposition that predictability provides individuals with a sense of control over the environment. James thrived on routines and, when changes to the schedule happened, he did well when these changes were explained to him ahead of time. This was clear from his initial interview where, at multiple points, he recited his schedule, reviewed the chronological order of events he had already performed, and then circled back to review the same topics again. He spoke to me in his initial interview about his music class, saying "In general music, which is the fifth block, do you know what I like about it? When Mr. Bailey tells us what's going to happen." He had told me this on several occasions outside of this interview, too. Understanding the schedule gave James a sense of safety, most closely associated to self-efficacy because James felt a sense of control over his environment. More specifically, one of the four sources of efficacy is a positive emotional state or safety (Bloomberg & Pitchford, 2017). When this feeling was compromised by having a surprise change to the schedule, James had trouble pulling coping mechanisms to alleviate his anxiety.

In response to James' need for predictability, I embedded work on self-regulation strategies into our group's daily routines. For instance, almost every class period began with a two-minute meditation. Throughout the year, James and the group frequently categorized issues as "big deal" or "little deal" to identify appropriately matched reactions and strategies. Embedding these practices as daily group routines provided James with social models and opportunities for multiple repetitions with self-regulation skills gave James multiple sources of self-efficacy.

I also provided James with personalized self-regulation strategy. When he became upset, I prompted him to write down his concerns so we could talk about them later. I

also provided James with a visual schedule and advance notice of changes to the schedule. For instance, if I knew I would be absent, I told James and the group in advance, provided them with a general overview of the plan for the day when I would be out, and allowed James to ask questions. I created a binder for James with social stories, one of which was about teacher absences. I reviewed this frequently with James to decrease his anxiety and provide him with a sense of predictability for days when I would be out. Over time, James began pulling the social story binder off the shelf to review it without teacher guidance. The social stories provided James with an additional source of self-efficacy that helped soothe his emotions and find a sense of predictability when his routine was altered.

As the year progressed, James began to vocalize his needs for meditation breaks, engage in journal time to write concerns, write down changes to his schedule in his own calendar, and identify coping strategies matched with feelings. By the end of the study and school year, James moved at an appropriate pace from class to class, instead of a panicked rush. When schedules changed unexpectedly, he told his teachers, "It's a little deal," and independently got out the book of social stories to remind himself about schedule changes. James enjoyed having the ability to take breaks for self-regulation, and there was voice and choice in how those breaks appeared. Since the beginning of this study, James' anxiety appeared to decline, at least outwardly.

James' desire for predictability extended to his teacher relationships as well. This was consistent across the study, with James showing a strong preference for teachers over same- or similar-aged peers. Evidence in James' case indicates that his self-efficacy was tied to his sense of relatedness with teachers. When James' interviews were coded for

teacher mentions, this code overlapped most often with knowing what to expect. The next most common overlapping code with teacher mentions in James' interviews was relatedness. James mentioned or identified same- or similar-aged peers a total of eight times throughout his interviews. However, he mentioned or identified teachers by name 59 times in his interviews and became very excited when discussing them. Many adolescents begin to look away from their adults and more in the direction of their similar aged peers for role models (Hay & Ashman, 2003; LaFontana & Cillessen, 2010). In contrast to his peers, James found a sense of emotional safety and relatedness in teachers, as opposed to same or similar aged peers.

Autonomy. Autonomy was coded three times in James' data sources. James' experience with autonomy was also unique when compared to his peers. Autonomy appeared very rarely in James' data. However, the low occurrence rate of autonomy was also a rich data point that may indicate he did not prefer autonomy, or he did not have enough autonomy-support.

According to observations, James appeared disengaged when presented with and encouraged to make choices. For instance, early in the study, I asked students to select books of their liking from the classroom library to keep in their individual student bins. James stared at the novels on the shelf and walked back to his seat, changing the topic to ask the teacher-researcher, "Have you ever been to New York?" I redirected him back to the shelf and offered to help him find a book. I made attempts to advertise a few books excitedly, but he responded, "Yeah," with little feeling in his voice, placed the book to the side, and continued his conversation about New York.

James' distaste for flexibility in schedules may indicate that he did not prefer the choices I provided, but instead preferred those that were more catered to his hyper focused interests. It is possible that, when presented with too many choices or choices that did not include his interests, James became overwhelmed or disinterested in the choices provided. In real life contexts and academic situations, James had difficulty making predictions, especially when he had limited background experience. For instance, he became frustrated when I encouraged him to make a prediction about reading, stating in response, "I don't know the answer." Placing him in a situation in which he was provided the autonomy to select his own topic or project idea may not have supported his needs because his interests were not included. Furthermore, choices may have created unpredictable situations, which may have heightened his anxiety and reduced his ability to do so successfully.

Relatedness. Relatedness was coded on 11 occasions in James' data sources. As stated previously, James preferred to seek companionship and modeling from teachers as opposed to same- or similar-aged peers. This was evident in observations and interviews, during which James rarely engaged socially with his peers, actively sought out attention and support from adults, and spoke of his teachers with high frequency.

In the closing interview, I asked James how he would describe himself. He responded, "I like worrying about teachers and my friends and even myself." Importantly, James included the word *friends* in his statement, indicating that he was becoming more aware of their value in his life.

Competence. Competence was coded 16 times in James' data sources. In the first few chapters of the novel, the group, including myself, read out loud together, pausing

periodically to discuss important events and vocabulary. In a lesson on character traits, James required more assistance than his peers understanding the concept of traits. Figure 4.6 shows a concept map James completed during the character traits lesson with one-on-one assistance.
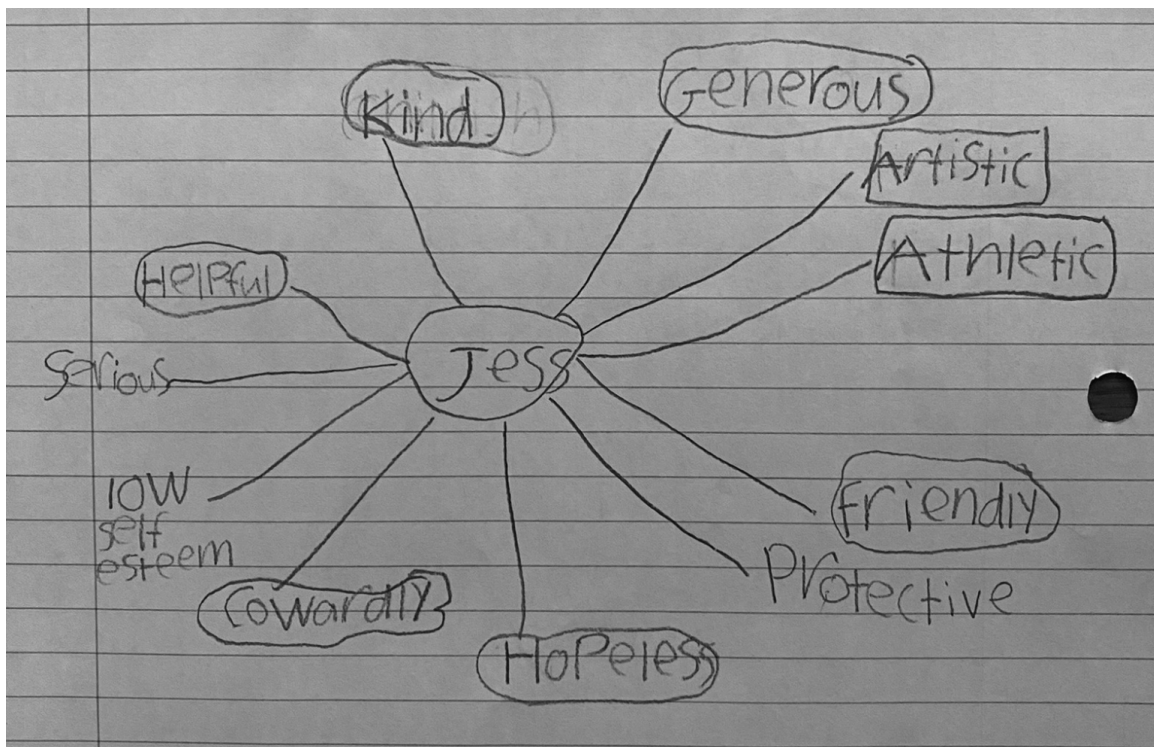
Figure 4.6 Character Traits Concept Map

As James' peers gained independence with the concept and activity, I pivoted, asking him, "How can we describe Jess?" James said with hesitancy and an inflection of question, "I think Jess is . . . happy?" I provided him with explicit feedback, stating, "Happy is a feeling, but not a trait. Is happy a feeling or a trait?" James responded, "Oh. It's a feeling. . . . So should I write it?" James was very comfortable and competent with copying notes but was uncertain when generating his own original ideas. I redirected his attention to the list of traits, saying, "Let's find a trait on this list that describes Jess." After several trials, James identified traits that matched the character. James continued to

rely heavily on teacher assistance, awaiting approval and direction. This activity was new to James, so he was uncertain of the order of steps he should follow.

James' expressed vocabulary of feelings throughout the study was limited to happy, sad, mad, worried, upset, and frustrated. Despite my pivoted assistance during instruction, this activity was not scaffolded enough for James, and therefore, likely heightened his anxiety and thwarted his need for competence.

At the end of each page, I asked the group for the most important idea from the page. In chapters one and two of the novel, I provided some of those ideas on the whiteboard, but encouraged the group to create their own ideas, which Tristan and Kaylin did. James consistently copied my own. By chapter three, I provided fewer annotations from the group discussion on the whiteboard, encouraging and assisting James to provide one as well.

Like his peers, James provided simple summary statements for annotations at the beginning of this process but required teacher assistance to identify main ideas from the text. Figure 4.7 is an example of James' annotations for chapter three of the novel. James was able to identify character names but had difficulty identifying the setting and important events in the story. Most of the annotations for chapter three are correct, with exception of the annotation "The important part was signings." I continued this instructional procedure with James for chapter four of the novel, too. However, he preferred to copy sentences that appealed to him from the text instead of generating them.

Chapter 3

Leslie is at school.

There are a lot of desks.

They were talking about school.

The important part was leslie's desk.

The important part was signings.

Gary wanted to see Jess' drawing.

Jess got in trouble.

Wanda and Mary Lou are rude and they made fun of Leslie.

They are getting ready to race.

Figure 4.7 James' Annotations at the Beginning of the Novel

While reading chapter five, the group took turns reading paragraphs, pausing periodically to discuss events and vocabulary. By this chapter, I faded my own modeling for the group, but continued to remind the group after each page, to make an annotation of the most important part, a question, or a prediction. In Figure 4.8, James made an annotation completely independently. However, this sentence was copied directly from the text (Paterson, 1977, p. 62).

Chapter 5

May Belle was still screeching about her dad gum Twinkies over the roar of the motor.

Figure 4.8 James' Annotations in the Middle of the Novel

It was evident that James was continuing to have difficulty identifying main ideas while reading and it was not clear whether annotation was supportive for his reading

comprehension. To address this issue, I narrowed James' focus when annotating to identifying confusing vocabulary. While reading, James listed words he did not know, instead of attempting to generate main ideas. Some of the words James identified in chapters six through 13 included *ruin, fuzzed, shoved, occasionally, desire, snicker, dull, whimpering,* and *ashamed.* James identified basic vocabulary words and often many within one paragraph. This amount of unknown vocabulary severely impacts overall reading comprehension. Annotation did not appear to provide enough support for James' competence. Furthermore, he made insignificant growth from the beginning to the end of the year on the MAP, and his growth was well below that determined average by the NWEA. James appeared to have experienced needs frustration, inhibiting his ability to make literacy gains and become more motivated.

James' case followed a very different path than that of his peers. James' case illustrated the need for both emotional sensitivity and optimal challenge through scaffolded instruction. However, he experienced needs frustration and did not show significant improvements to literacy motivation or achievement. Instead, he continued to search for self-efficacy through predictable patterns in his environment.

Summary

To ground the intervention of this study in SDT (Deci & Ryan, 2017) and self-efficacy (Bandura, 1997), the intervention unfolded to include a personalized environment and a literacy event (Street, 2003), which were implemented to enhance students' sense of capability (Bandura, 1997) and boost motivation (Deci & Ryan, 2017). The data in each student–participant's case provided evidence to illustrate the implementation of personalized interventions to boost literacy motivation. Positive

outcomes with self-efficacy beliefs and basic psychological needs created support for personalized environments and literacy events for students with disabilities.

Based on the findings in this multiple-case study, students' experiences with self-efficacy were related to their autonomy. Students with higher self-efficacy beliefs required less teacher support and engaged autonomously. On the contrary, students with lower self-efficacy beliefs demonstrated a need for more predictability and teacher guidance. This finding was consistent with Bandura's (1997) theoretical proposition, particularly that individuals gain a feeling of agency if they feel they can influence their outcomes.

The literacy event was structured using a gradual release of responsibility to provide a needs-supportive, personalized experience. Students who had positive experiences with the literacy event had appropriate levels of needs satisfaction and significant gains in literacy, as demonstrated by observations of engagement, general attitude, quality of annotations, and scores on districtwide assessments. On the other hand, one student, who did not show significant gains in literacy, experienced needs frustration, requiring more aligned instruction to provide appropriate needs support.

Chapter Five: Implications

I became inspired to make change in my classroom after many years of using prescribed curricular materials that hampered student motivation and engagement. I sought to make this change by designing a needs-supportive environment. The purpose of this study was to gather insights on students' experiences with self-efficacy and motivation using a qualitative multiple-case study. Deci and Ryan's (2017) SDT and Bandura's (1997) construct of self-efficacy served as a foundation for each aspect of the study.

Overview of the Study

The purpose of this multiple-case study was to explore the ways in which adolescents with disabilities experience self-efficacy, autonomy, relatedness, and competence in the context of a personalized, needs-supportive intervention in a special education classroom.

Results and Discussion

Answering the Research Questions

It was important to honor the individual perspectives and voices of the students in this study by using qualitative multiple-case study methodology, which provided rich descriptions of each case, or student–participant, exploring the themes and cross-case themes. I conducted semi-structured interviews and observations with field notes, collected reflective notes, and gathered student artifacts to answer each of the research questions. Following data analysis, the findings of each research question revealed

connections to and departures from literature reviewed in Chapter Two. The following sections provide detailed findings for each research question and construct.

Primary Research Question Findings

The primary research question asked: "How do adolescents with disabilities experience overall motivation, as defined by the constructs of self-determination theory, in the context of a personalized learning special education classroom?" Each of the student–participants shared data with rich descriptions of their experiences with motivation, as defined by Deci and Ryan's (2017) SDT. All student–participants had unique needs, thereby telling their own story of motivation. The findings of this action research study lent support to previous studies indicating that support for all three of the basic psychological needs is necessary for building motivation and that autonomy-support is likely predictive of engagement (Hafen et al., 2012; Núñez & León, 2015; Núñez & León, 2019). Kaylin and Tristan had positive experiences with each of the psychological needs, with autonomy, in particular, facilitating their engagement. Their need for relatedness was supported through peer connections, which also helped them engage in productive collaboration as part of a gradual release of responsibility. Their ongoing scaffolded support also led to literacy gains, looping in their psychological need for competence. These same student-participants described engaging learning experiences as "fun", lending support to studies finding needs-supportive settings lead to motivation and engagement (Hafen et el., 2012; Núñez & León, 2015; Núñez & León, 2019).

James experienced needs-frustration and a lack of academic progress, indicating that needs-support was critical for motivation and engagement. James' difficulty in

obtaining needs-satisfaction may have stemmed from his need for emotional sources of self-efficacy (Bandura, 1997), addressed further in later sections. Additionally, James lacked access to personally relevant choices, thwarting his need for autonomy which, according to prior research (Hafen et al., 2012; Núñez & León, 2015; Núñez & León, 2019) predicted his lack of literacy achievement, motivation, and engagement. Despite ongoing instructional support, he made insignificant literacy gains.

Research Subquestion Findings

The subquestion asked: "How do adolescents with disabilities demonstrate self-efficacy for literacy in the context of a personalized learning special education classroom?" Each of the student–participants shared data with rich descriptions of their experiences with self-efficacy. The findings of this research question had connections to and lent support for the findings in recent literature (Girelli et al., 2018; Klassen, 2002a, 2002b; Sawyer et al., 1992; Warner et al., 2011). Although all three student–participants' experiences were different, all three together suggested self-efficacy was tightly connected to predictability and autonomy (Bandura, 1997; Girelli et al., 2018; Warner et al., 2011) and showed evidence that students with disabilities can have self-efficacy beliefs that are not aligned with actual capabilities (Klassen, 2002a, 2002b; Sawyer et al., 1992).

Kaylin provided evidence that sources of self-efficacy through enactive attainment yielded more autonomy, literacy gains, and motivation. Her experience had clear connections to the theoretical assumptions of self-efficacy theory (Bandura, 1997). Her experience also lent support to previous research on the integration of self-efficacy and self-determination theory indicating that autonomy-support for individuals with

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beliefs of self-efficacy leads to further success in the forms of autonomous motivation, academic success, and further beliefs of self-efficacy (Girelli et al., 2018; Warner et al., 2011).

Based on the findings in this action research study, students demonstrated low self-efficacy through frustration, requests for clear expectations, and a need for teacher support. Tristan and James provided evidence that levels of self-efficacy must be met with an appropriate level of autonomy-support, lending support to recent research (Girelli et al., 2018; Warner et al., 2011). Tristan and James demonstrated a need for predictability as a way of feeling self-efficacious. Access to autonomy through choices increased Tristan's sense of capability because he was able to predict his next steps. On the other hand, James' low self-efficacy manifested as emotional frustration and a need for teacher support, likely because his need for autonomy and other psychological needs were not appropriately supported. The findings in Tristan and James' cases indicated that individuals with low sense of self-efficacy may benefit from more support to obtain or maintain their perceived autonomy, which has clear connections to previous research (Warner et al., 2011) that identifies connections between self-efficacy and self-determination theory.

Tristan felt low self-efficacy for writing, but sometimes misjudged his abilities or the requirements involved in the task. Tristan displayed self-efficacy differently than both James and Kaylin, occasionally proceeding with confidence, only to be frustrated when provided assistance on items completed erroneously. Tristan's experience lent support to studies finding that students with learning disabilities can have miscalibrated self-efficacy (Klassen, 2002a, 2002b; Sawyer et al., 1992).

Practice Recommendations

The conclusions and their implications in this action research study generated a series of next steps for a continued action research. These items include plans to further pursue the implementation of needs-supportive personalized learning practices grounded in SDT (Deci & Ryan, 2017) and self-efficacy (Bandura, 1997) for students with disabilities. The implications of the findings of this action research study are also described.

Next Steps in Educational Practice

Based on prior research and the findings of this action research study, needs-supportive, personalized learning environments have the potential to propel motivation and engagement forward, a once seemingly insurmountable obstacle for students with disabilities. Therefore, as part of a continued problem-solving cycle of action research, I plan to pursue continued implementation of personalized learning practices. Based on my reflections, conclusions, and implications, I specifically plan to continue and develop conferring practices, personalized learning plans, and the use of diverse texts. Each of these practices is supportive of basic psychological needs and provides sources of self-efficacy.

Using Conferring to Build Student Ownership

I plan to continue using conferring as a routine in the classroom, but to make it a more powerful method to gain student input in the learning process. Early in the course of this action research study, I established conferring as a routine for supporting students' psychological needs and providing a source of self-efficacy, which is critical in building students' motivation. With this routine well-established with my students, I envision my

students taking more responsibility for the learning process. Conferring will focus on collaborative reflection on learning strategies and creation of learning plans that are responsive of students' needs, interests, and abilities. This is a critical shift toward a student-centered classroom in which students develop high quality forms of motivation.

Personalized Learning Plans

Personalized learning plans provide a method to very intentionally guide students along a gradual release of responsibility with their input along the way. It was helpful to rely upon the gradual release of responsibility framework (Fisher & Frey, 2013) because it provided needs support and sources of self-efficacy for varying abilities demonstrated by students throughout this action research study. However, I wish there had been more student input in the content, pacing, or learning modality. A personalized learning plan could potentially take the gradual release of responsibility framework a step farther, amplifying student voice and increasing transparency of the steps in the learning process.

Authentic Literacy Events with Practices Interwoven

The prepackaged and standardized curriculum used prior to beginning this study did not provide content relevant to students or integrate student voice and choice, eliminating motivation and engagement. To the contrary, the students in this study experienced more motivation and engagement when literacy was a socially situated, autonomous experience. Therefore, to make literacy even more engaging for my students, I plan to use a wider selection of diverse, culturally-relevant texts that evoke problem-solving and discussion. By including diverse texts that take students' interests into consideration, I aim to incorporate personally meaningful and relevant content that heightens motivation and engagement.

Implementation Plan

The implementation plan identifies ways the findings of this study will be communicated with important stakeholders, such as school faculty members, particularly those working directly with students with disabilities. The key components of this plan involve continued work in my classroom with students and continued action research with colleagues. As an extension of this dissertation, continued collaboration with peers and publication of materials will reach a wider audience.

My first step in implementation will be to continue my pursuit and development of needs-supportive, personalized instruction in my classroom. This will entail each of the action steps laid out previously, which will require ongoing problem-solving. I will depend upon colleagues as critical friends in this process to assist me in gaining new perspectives as I analyze the effects of new processes with my students.

By communicating and problem-solving with my colleagues, I will create accountability for my own implementation goals. I plan to involve a general education English teacher in this process, as she has valuable perspectives working with students with disabilities in high school literacy content. An accountability partner can help me set implementation goals, obtain feedback on my progress toward those goals, and solve problems while testing and modifying new strategies.

Throughout this action research study, two fellow doctoral students with overlapping research interests became a source of support and growth for me. As the three of us move forward in our studies, we have plans for collaborative conference presentations and journal publications. We are also hopeful of continuing and combining our research to create a more cohesive picture of self-efficacy and self-determination

across ages and populations. These populations would include students with and without disabilities, as well as teachers' experiences with collective efficacy.

Reflection on Action Research and Methodology

Reflection is an essential piece of the problem-posing action research cycle that prompts continuous cycles of improvement. Taking an inquiry stance, the findings are never final and open to further cycles of improvement (Klehr, 2012). I reflected on my role as a teacher and researcher throughout the action research process. This reflection includes a discussion of expected and unexpected findings, suggested changes to improve the study, and value of the research.

Expected and Unexpected Findings

Kaylin's findings followed the most predictable path, with easily identifiable connections to theory and recent literature. Tristan and James had less predictable findings, with James having the most unexpected. Although the findings from James' case were unexpected, they provided very helpful opportunities for growth and insight into my own teaching practices and understandings of individuals with autism.

Each of the findings from James' data seemed to contradict with the recent literature I reviewed for this study. Therefore, further research was required to gain a deeper understanding of the findings in his case. One characteristic of individuals with autism is perseverations (Arora, 2012), which are areas of intense focus or fascination. James had topic perseverations, often rerouting conversations in the direction of his favorite topics. In James' interviews, he perseverated on schedules and teachers. He also enjoyed learning and using quantifier and transition words (e.g., couple, few, a lot, several, in general, specifically) in his written and spoken language. These perseverative

behaviors appeared in interviews, where it became a challenge to keep James on topic and gather responses to questions. Späth and Jongsma (2020) provided further insight into James' need for autonomy, stating that individuals with autism often have highly specialized interests and likely do not engage in some topics because they are simply uninterested in them. Therefore, when I provided James with a variety of topics or work choices that did not include his interests, I did not meet his need for autonomy. James' case provided evidence that students require personally relevant choices if autonomy is to be supported. Furthermore, inappropriate amounts of autonomy, even too much autonomy so that it becomes overwhelming, can inhibit or thwart one's emotional needs for safety.

Suggestions for Improvement

I was surprised that my students chose to read *Bridge to Terabithia*, instead of their other options. Other options were *The Strange Case of Origami Yoda*, by Tom Angleberger; *A Little Piece of Ground*, by Elizabeth Laird; and *Fish in a Tree*, by Linda Hunt. Some of these other novels may have yielded more in-depth discussion. It is possible that the summary and cover art for some of the novels the students did not choose were less appealing because the illustrations and summaries were less detailed or inviting. For instance, *Fish in a Tree* has a very simple illustration on the cover and is about a student with a disability. Although the students could have identified with characters in the book, they may have desired an escape read. This study could be improved by providing students with enticing summaries. I also recommend adjusting novel selections to include a wider variety of diverse texts, not limited to novels, that lend to more critical dialogue with students. Choices could also involve students' interests,

cultural background, and future goals, so that the students are engaging in self-relevant literacy.

I had not anticipated just how difficult annotation would be for James, who required more scaffolding, in-the-moment pivots, and more opportunities to practice steps to achieve mastery. Teaching him to annotate unknown vocabulary words was a departure from rich transaction with the text that was the goal of the annotation, but provided a sense of emotional self-efficacy for the student. Ideally, I would modify and improve this part of the study by reviewing unknown vocabulary with James prior to reading a selection, which would then increase his access to and engagement with that text.

Finally, my process of conferring with students could be improved by integrating reflection in a purposeful fashion to establish reflection as a routine for students. As students reflect upon the strategies they are using, they become more aware of methods that are successful for them and how to adjust them so they can be more successful. This recommendation helps students build awareness of their learning process.

Value of the Study

I found the reflective process of action research personally valuable in this study, especially pertaining to my own teaching practices and beliefs of individuality. Action research engages the teacher–researcher in a deeply critical, collaborative, cyclical, and self-reflective practice with the goal of achieving change, improvement, and social justice (Herr & Anderson, 2015). Through repeated and deep reflection, I came to an epiphany that James' experience with needs frustration may have been a result of my need to make him conform to preconceived norms. Therefore, the action research cycle was beneficial

for my inner growth and teaching practices, which will lead to improved teaching practices for my students.

Engaging in this action research cycle created a problem-posing and problem-solving cycle, throughout which I reflected upon the use of needs-supportive strategies for students with disabilities in literacy studies. The rigorous process allowed me to deeply analyze the use of the gradual release of responsibility framework as a means to personalize learning for students. This study afforded me the opportunity to identify instructional strategies that increase student motivation and engagement.

Limitations

Any study has its limitations, and those are explained in this section to increase transparency. The following sections share limitations and key questions that emerged throughout the study and explain areas in need of further research.

The population of students in this study was well aligned with a multiple-case study methodology, which typically involves a small group of individuals. However, by selecting a case study methodology, the findings of this study were based on a small sample size, which limited the representativeness of the findings and may impact the degree to which they translate to other situations.

The confines of this study design made it impossible to sort out whether other contexts, including previous experiences and other classroom settings, impacted students' beliefs of self-efficacy and motivation within my own classroom. Students arrived to the study with expectations about themselves and how the classroom would function, as well as expectations that were implemented in other classrooms during the study. However, in qualitative action research, the purpose is not to determine causation or correlation.

The sources of data in this study were robust; however, additional types may have added to the findings. Although initial and closing interviews were helpful, there were no interview data in the interim of the study. Additional interviews during the middle of the study may have been beneficial for data collection and findings. Another helpful source of data may have been student reflections about learning strategies. These data would likely provide a wealth of writing data and input about students' self-efficacy.

My relationship as an insider in action research may have posed a limitation. My focus for much of the intervention was to cultivate community in my classroom, which drew me deeper into relationships with my students as the study progressed. Therefore, this experience may have affected the direction of the study and my ability to accurately perceive and analyze the data.

Key Questions and Recommendations for Future Research

The findings of this study pointed to possible areas worth exploring in future studies. The following questions emerged from the findings of this action research study. How does the type of disability or its characteristics play a role in an individual's needs satisfaction or frustration? Further, how do comorbidities impact needs satisfaction or frustration? According to Buckley et al. (2021), many individuals with autism also have ADHD, anxiety, or depression, impacting their overall quality of life and mental health. Furthermore, individuals with autism and ADHD can have lower self-efficacy than individuals with autism (Buckley et al., 2021). This impact is impossible to determine from this very small number of participants, but it appeared that type of disability played a role in needs that were important to the student and traits of self-efficacy apparent in the

student. James' experience stood out, possibly due to his diagnoses, but possibly due to preconceived norms I placed upon him.

All students, no matter their cognitive ability, can benefit from personalized literacy interventions (Wehmeyer et al., 2013). However, the abilities and psychological needs across even the small group in this study were vast. As such, I wonder if a wide discrepancy between group members' abilities and psychological needs impacts a teacher's ability to meet individual needs or increases the likelihood of standardized practices. This concept is an intriguing area that warrants further research, especially if personalization is to exist in larger classroom environments.

The limitations of this action research study suggest future research should apply quantitative or mixed methods research to replicate these findings, explore the intervention with larger sample sizes, and apply the study design and methods to different settings and populations. Exploring this study with populations outside of adolescents with disabilities, such as those without disabilities or students in higher educational institutions, to determine the impacts of external variables upon students' motivation in a classroom may lead to insights on how to successfully implement needs-supportive interventions. A longitudinal design conducted in a district implementing personalized learning throughout all schools may be particularly useful in overcoming these obstacles.

Summary

The problem of practice identified for this action research study involved adolescent students with disabilities and their difficulties with motivation and self-efficacy for literacy. Adolescents experience a rapid decline in motivation (Anderman et al., 1999; Gnambs & Hanfstingl, 2016; Hay & Ashman, 2003; LaFontana & Cillessen,

2010; Midgley & Feldlaufer, 1987) and individuals with disabilities experience needs frustration and barriers to self-efficacy (Bergen, 2013). Therefore, this qualitative multiple-case study aimed to address these issues by using personalized learning to guide the design of a needs-supportive intervention. Grounded in self-determination theory (Deci & Ryan, 2017) and self-efficacy (Bandura, 1997), this study explored students' experiences with confidence and motivation for literacy. The findings suggested that adolescents with disabilities experienced benefits within a personalized learning environment. With sources of self-efficacy and support for basic psychological needs, students demonstrated increased literacy achievement, motivation, and engagement.

The findings of this action research study generated further questions that could not be answered within the design and scope of this study. As this study was not designed to identify correlation or causation, further research is required to determine whether there are trends between disability type and psychological needs and self-efficacy. There is limited research available on the impacts of personalized learning specifically for adolescents with disabilities. Therefore, this topic of study warrants further research on a larger scale to create a substantial pool of studies. Additional studies may more accurately identify the impacts of personalized learning environments for students with disabilities. Further studies may be capable of definitively identifying the value of personalized learning environments in overcoming motivational barriers for individuals with disabilities.

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Appendix A: Student Assent Form

Assent to be a Research Subject Script

I am doing research with the University of South Carolina. I am working on a study about student choice, confidence, and identity and I would like your help. I am interested in learning more about how you feel about these things, especially when we learn about reading and writing together. Your parent/guardian has already said it is okay for you to be in the study, but it is up to you if you want to be in the study.

If you want to be in the study, you will be asked to do the following:

- Answer some verbal questions about how you feel and think about reading and writing.

- We will have some individual and group conversations during our novel study time about how we are thinking and feeling about ourselves and our comfort with our learning.

Any information you share with me in individually will be private. No one except me will know what your answers to the questions. And when you do share with me, I want to make sure I remember everything correctly. So I will take notes on my computer many times and I will also record some of our conversations. I won't share these notes or recordings with anyone.

You do not have to help with this study. Being in the study will not help or hurt your grade. You can also decide to drop out of the study later at any time, for any reason, and you will not be in any trouble and no one will be mad at you.

Do you have questions for me? You can still ask me later, too.

Appendix B: Supplementary Tables

Table B.1 First Cycle Coding Methods

Data collection method	Research questions investigated	Coding methods
Initial semi-structured interview	Question 1 Question 2	Elemental - Concept coding Elemental - In Vivo coding
Closing semi-structured interview	Question 1 Question 2	Elemental - Concept coding Elemental - In Vivo coding
Descriptive notes of observation	Question 1 Question 2	Elemental - Concept coding Elemental - In Vivo coding
Reflections	Question 1 Question 2	Elemental - Concept coding
Documents and artifacts	Question 1 Question 2	Elemental - Concept coding Elemental - In Vivo coding

Table B.2 Number of Quotations Code by Source and Cycle

Source	First cycle concept and in vivo	Second cycle pattern
Interviews	287 Concept	132 Concept
	76 In Vivo	61 In Vivo
Field notes	36 Concept	29 Concept
	0 In Vivo	0 In Vivo
Reflections	6 Concept	5 Concept
	0 In Vivo	0 In Vivo
Student artifacts	19 Concept	10 Concept
	14 In Vivo	11 In Vivo
Total	438	248

Note. Table B.2 gives a snapshot of the number of concepts and in vivo codes I found by source during first and second cycle coding. The number of concepts and in vivo codes represents the number of quotes I coded that were present in each source. This is an indication of the utility of the codes and the sources themselves in the data analysis process.

Table B.3 Thematic Framework

Number of quotes	Theme	Concept codes	In Vivo codes
93	Self-efficacy traits and beliefs give learners an "I can" attitude.	Setting goals for self Persistence Challenging self with difficult tasks Confidence Knowing what to expect Clear expectations Vicarious experiences/ models Mastery experiences Emotional state/safety Verbal persuasion/ feedback	"instead of choosing what other people do" "smart and never giving up" "unmotivated" "I am confident" "I'm not confident" "being calm is important" "I want to get better" "what's going to happen" "schedule doesn't change"
69	Autonomy is making choices for yourself.	Autonomy Student voice	"had no choice"
35	Competence means getting feedback and understanding.	Competence	"got a bad grade" "easy to understand" "I don't understand" "it will help me learn"
30	Relatedness is having a safe, loving place.	Relatedness	"the classroom smells like your favorite place" "you need a place in the classroom" "you don't need to do all the work" "fun teacher" "I love them"
21	Engagement is fun.	Varying degrees of enthusiasm	"interesting to read" "it makes me happy"

Note. Table B.3 shows the thematic framework, which lays out the themes and their associated codes. The themes appear in order from those with the most coded quotes to the least. The top three were self-efficacy at 93 quotes coded, autonomy at 69 quotes coded, and competence at 35 quotes coded. The themes began as short words, and I created longer phrases to make the themes more meaningful when read without their codes and quotes. As often as possible, the phrases included the participants' actual words.

Table B.4 Student–Participants' MAP Scores and Growth

Student	Fall 2021 RIT score and percentile	Winter 2022 RIT score and percentile	Spring 2022 RIT score and percentile	Overall growth
Kaylin	177; 2nd percentile	206; 31st percentile	206; 31st percentile	36 points (above typical growth)
Tristan	185; 4th percentile	196; 10th percentile	210; 30th percentile	25 points (above typical growth)
James	173; 1st percentile	181; 2nd percentile	181; 2nd percentile	9 points (below typical growth)

Appendix C: Graphic Organizer

According to the text

This shows

Chester howl is

the narrator was misunderstanding her dog

The narrator think he is crying

She still is having trouble understanding and hasnt changed

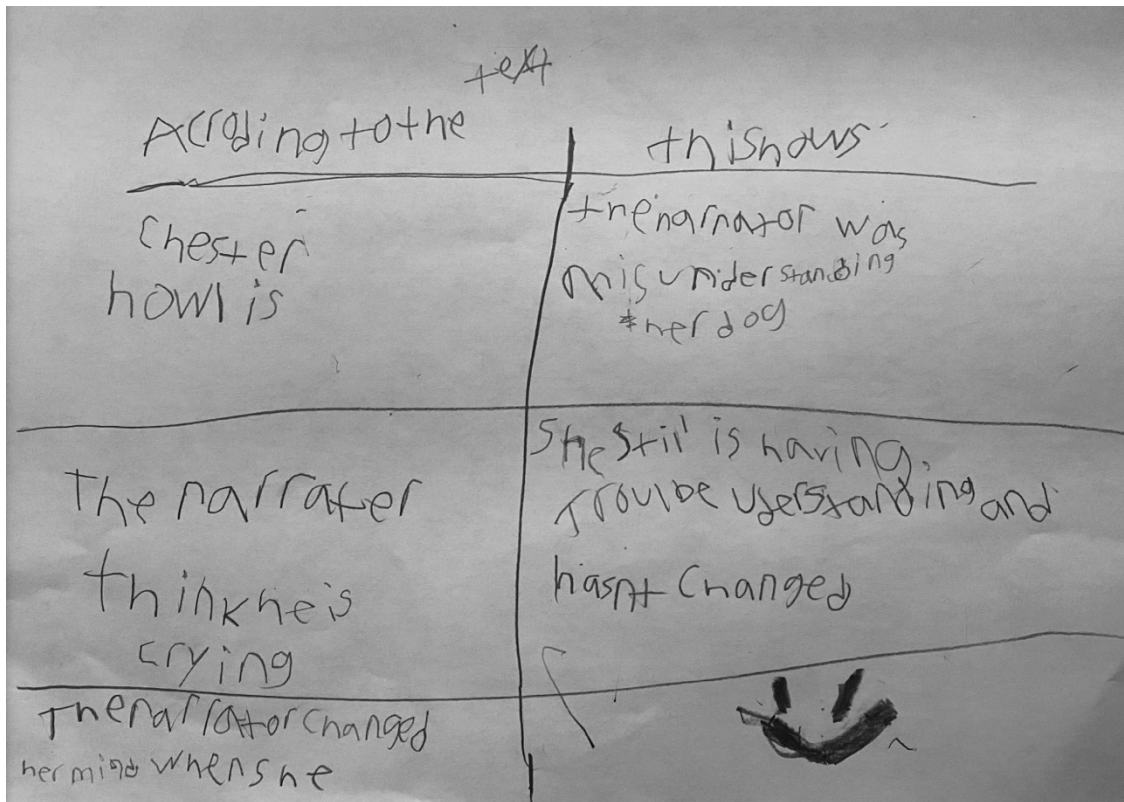The narrator changed her mind when she

Figure A.1 Tristan's Text-Dependent Graphic Organizer

Appendix D: Parent Permission Form

- YES, my student's data may be included in the study.

- NO, please exclude my student's data from the study.

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Student Name

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Parent/Guardian Signature