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How To Promote Self-Determination in Students with Disabilities

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A Literature Review Presented
in Partial Fulfillment of the Requirements
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How to Promote Self-Determination in Students with Disabilities

Self-determination is defined as “a combination of skills, knowledge, and beliefs that enable a person to engage in goal-directed, self-regulated, autonomous behavior. An understanding of one’s strengths and limitations together with a belief in oneself as capable and effective. When acting on the basis of these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults” (Denney & Daviso, 2012, pp. 43-44). With this definition in mind, self-determination is not something that all children pick up on from the beginning. It is a skill that needs to be taught to be successful in life. For some children, self-determination comes easy. They are easily motivated by a variety of incentives, or even no incentives at all. Some children are simply motivated to learn for the love of learning. However, for some children, school is not of any interest. They do not see the point. They are simply at school because they are told that they must be there.

A lack of self-determination can add to the problems of students with behavior concerns or disabilities. Many of them are on an Individual Education Plan (IEP) because their lack of self-determination is setting them back. They are falling behind not only academically, but socially and emotionally as well. On the flip side, students who struggle academically and behaviorally can succeed with the right skills. According to Cuenca-Carlino & Mustian (2013), children with disabilities who are within a transition stage and have higher self-determination and self-advocacy skills are more likely to partake in higher education and employment than students with disabilities who do not possess these skills. Therefore, to alter these negative reoccurring circumstances for students with emotional and behavioral disorders and enhance the possibility of future success, it is essential to incorporate effective interventions to build self-determination skills in this student population.

The purpose of this literature review is to analyze what experts have studied about promoting self-determination in students with disabilities and their suggestions for future research. The goal of the research is to find ways to motivate children with disabilities. Although there are many forms, modes, strategies, tests, assessments, and technologies that have been studied involving self-determination, only a few seem to work well with students with disabilities.

The principal finding from this literature review is that there are multiple aspects to promoting self-determination. There is not one right answer, but rather a slew of answers that work together to help students with and without disabilities enhance their self-determination skills. It is also essential to mention that a strategy that works for one student may not work for the next: every student has different needs, and every adult that is involved in a student's life including parents, teachers, paraprofessionals, counselors, and coaches need to be aware and supportive of that fact. The students have a role in their own self-determination; however, the adults in a child's life are the foundation. While many authors and researchers have tried to standardize measurement and implementation of self-determination through various practices and perspectives including measurement tools, technology, supports of others, and through types of diversity, there is not a one-size-fits-all answer or solution. There will always be outliers. Self-determination on a broad scheme is a very complex issue that will need to be addressed systemically and individually.

Research for this paper was drawn from the ERIC (Education Resources Information Center) database, the WorldCat discovery tool through DeWitt Library, and Google Scholar. All the articles included some aspect of self-determination. The studies that are discussed were published in the last 10 years. Methodology of the studies described are either quantitative, qualitative, or mixed methods. The geographic areas of publication are from all over the world.

This literature review will analyze what self-determination is, the various methods and systems that have been used to promote self-determination, technology that has been involved with self-determination, perspectives of self-determination, how diversity affects self-determination, and future research that is still warranted on self-determination.

These topics and themes were chosen to help understand how self-determination can be promoted. More importantly, these topics and themes have been chosen because professional researchers studying the concept of self-determination have found that certain components are key in promoting self-determination.

Literature Review

Measurements of Self Determination

Self-determination can be difficult to measure because it is more of a qualitative aspect; however, professionals have gathered quantifiable data on self-determination using various models, scales, and approaches. Cuenca-Carlino & Mustian (2013) aimed to promote self-determination by incorporating aspects of self-determination into a writing curriculum. This researcher found success in improving the writing and self-determination skills of students with emotional and behavioral disorders using the self-regulated strategy development (SRSD) model of writing instruction. The purpose of Cuenca-Carlino & Mustian's (2013) study was to assess the effectiveness of incorporating the SRSD persuasive writing model with self-determination instruction to help middle school students with emotional and behavioral disorders (EBD) improve their writing and self-determination skills.

There are six stages in the SRSD model of writing instruction (Cuenca-Carlino & Mustian, 2013). The first stage is called "Develop Background Knowledge." Teachers introduce the idea of self-determination using "The Seven Powerful Self-Determined Behaviors." The mnemonic device that they use is called "Don't Go Sneaking Past Any Mad Elephants." The first

letter of each word represents one of the seven behaviors: (D) decision making; (G) goal setting; (S) self-awareness; (P) problem solving; (A) advocacy (self-); (M) monitoring (self-); (E) efficacy. After this mnemonic device is introduced, teachers explain how the students can use persuasive writing to help advocate for what they want or need in life.

The next writing stage is called “Discuss It.” Teachers explain how the seven behaviors are applied in the writing process. Examples are used to show how the behaviors can be used to promote advocacy.

The third stage is called “Modeling.” This stage is exactly as described: teachers model the writing process that they taught. Students see how to arrive at a final writing product using the seven behaviors. Teachers can also stress the importance self-statements and their place in persuasive writing.

The fourth stage, “Memorize It,” consists of students memorizing what has been taught and modeled. Memorizing the seven behaviors allows the individual to access that knowledge in their day-to-day lives where true self-determination happens.

The fifth stage involves “Guided Practice,” where the scaffolded instruction allows the individual to take the instruction and apply it to their own writing. The students were asked to write a minimum of three persuasive essays using topics related to self-advocacy (topics approved by the teacher). After this guided practice, it was determined by the teacher whether or not the student was prepared to write independently.

In the sixth and final stage, “Independent Practice/Post-instruction,” all supports are taken away. A pre-test was given before the intervention, and a post-test was given after the intervention. The individuals were assessed on Self-Determination through two measurements: their independent knowledge of concepts discussed during the intervention were tested, and a

Likert scale questionnaire was given. In both cases, at the end of the intervention the students' average scores increased, and their standard deviation shrank. This result suggests not only that the practice was successful but that it worked to improve self-determination uniformly in the research study. These improvements were statistically significant using the Wicoxon matched pairs signed rank test.

In a similar way, Wei et al. (2021) explored ways to motivate students with learning disabilities by finding the appropriate research-based literacy interventions. The intervention focused on choosing texts that would be interesting to the students, promoting knowledge-based interest in the students, and developing task-based interest in the students. This case study offered "Strategies to Arouse Situational Interest." The research discussed sets of principles that should be addressed in topic interest, as well as the importance of activating prior knowledge. Wei et al. (2021) suggested that teachers can use the sets of principles by "engaging students in the learning process through a variety of hands-on activities to arouse situational interest and curiosity in reading" (p. 3). One form of hands-on learning that was described is project-based learning. The researcher named the typical steps that teachers take in this process. Lastly, incorporating technology-based instruction was analyzed in helping with task-based interest. Task-based interest can be generated by using manipulatives or technology. Children with disabilities, in particular, can use this task-based interest to overcome learned helplessness and become self-determined to investigate. Technology is the tool of choice for children with disabilities according to Wei et al. (2021). Wei et al. (2021) believed that technology would lend tools to the children with disabilities that would allow them to overcome their disabilities. Utilizing technology can not only bring about more interest in students, but it can boost their confidence level and make them feel more independent and become more successful in their work.

Not only has self-determination been studied in combination with aspects of language arts, but it has also been analyzed in learning mathematics. Wilujeng (2018) asked the questions, what is “the ability of students’ self-determination after making the learning process?” and what can be done to “improve the process of learning mathematics by knowing the ability of students’ self-determination?” (p. 2) There was a total of 60 students involved in this study, 24 male students and 36 female students. The researchers gave the Self-Determination Theory (SDT) assessment to the participants. Aspects of the SDT include autonomy, competence, and relation. Details on this assessment are given in upcoming action measurements of self-determination. Wilujeng (2018) concluded that the students are still lacking in all of the areas—autonomy, competence, and relation. They were not very confident in themselves and their abilities. Their self-determination was low. After seeing the scores from the SDT, students were asked how they feel about mathematics and solving math problems with reference to self-determination—autonomy, competence, and relation. Autonomy means a willingness to do something on your own. When asked if the students could do math problems independently, they were not confident in explaining the math problem or going off on their own to teach others. The questions they answered showed that they have the overall knowledge and tools that they need to succeed; however, most of the students disagreed when it came to the feeling that they have the potential and know what to do if asked to do a problem freely. With this outcome in mind, teachers can modify their instruction in the learning process in order to accommodate the students’ need of building confidence when it comes to being independent in math.

The other models, scales, and approaches measuring motivation and self-determination were not combined with any particular subject area. Chou et al. (2017b) used children with autism to validate two modes of assessment related to self-determination: Arc’s Self-Determination Scale (SDS) and the American Institutes for Research Self-Determination Scale

(AIR). Specifically, Chou et al. (2017b) sought to find if the assessments could reliably and validly determine self-determination in the Autism spectrum disorder (ASD) community. Both scales were designed to evaluate known theories on self-determination. The Arc's SDS was developed to measure the Wehmeyer's Functional Theory of Self Determination, which is a 148-point scale derived from a 72-item self-reporting questionnaire. Higher scores relate to a higher level of self-determination. This scale also offers four sub scores to weigh to individually as the four pillars of self-determination: Autonomy, Self-Regulation, Psychological Empowerment, and Self-Realization. The Wehmeyer's Functional Theory of Self Determination defines self-determination behavior as key to improving one's quality of life. Chou et al. (2017b) expresses that Autonomy, Self-Regulation, Psychological Empowerment, and Self-Realization are specifically essential to many skills such as: problem-solving, self-awareness, self-monitoring, decision making, choice making, goal setting and attainment, self-advocacy, self-knowledge, an internal locus of control, and perceptions of self-efficacy and outcome expectancy. Without these pillars of self-determination, life functionality would be diminished.

The AIR scale was created to assess the self-determination learning theory. It has multiple versions, which are selected based on the social group being assessed. It is a 24-question assessment that gives an overall score as well as two sub scores, which relate to capacity and opportunity. Capacity relates to what the individual can do while opportunity is more in realm of the individual's perceptions. These two sub classes of the test are essential to self-determination according to the AIR model. The AIR model points to interactions between the two sub scores leading to the spark of self-determination. The individual needs to have both the capacity to solve a problem as well as the perceived opportunity to become self-determined and accomplish the task. Additionally, the AIR model points to the fact that capacity and

opportunity need to be evenly matched. The individual needs to see the promise of success before they will pursue self-determination.

Ninety-five middle and high school students (17% female and 83% male) aged 13 through 21 years from the Midwestern United States participated in this study (Chou et al., 2017b). The assessment involving the Arc's Self-Determination Scale (SDS) and the American Institutes for Research Self-Determination Scale (AIR) based off of functional theories took between 20-40 minutes to administer. Findings reveal that both measurements were both valid and reliable for measuring self-determination in students with ASD (Chou et al., 2017b). The results advise that both scales are relevant to help students with disabilities develop self-determination. It was noted that the SDS could be used as an acceptable scale to both examine changes and the impact on self-determination during development in students with ASD.

Wehmeyer et al. (2013) also used The Arc's Self-Determination Scale and the AIR Self-Determination Scale as the two primary assessments in their research. The purpose of this study was to decipher if interventions are made to promote self-determination would yield higher results of self-determination scores of students with disabilities. Wehmeyer et al. (2013) also questioned if being involved in an intervention group that teaches self-determination would impact the self-reported self-determination of students with disabilities. Three-hundred seventy-one high school students receiving special education services from six different states were involved in this 5-year study. The participants actively participated for three of those five total years. While the majority of the participants were Caucasian, minorities were represented. Specifically, Hispanics, African Americans, Native Americans, Alaskan Natives, Asian Pacific Islanders, and those in "Other" group participated and were tracked in the study.

To answer the research questions, a randomized trial placebo control group design study was conducted (Wehmeyer et al., 2013). Wehmeyer et al. (2013) hypothesized that the treatment group of students with disabilities who would receive instruction to promote self-determination over a three-year span would demonstrate drastic growth compared to the control group who is not receiving any interventions. The researchers mentioned that they were also interested in a diversity of disability in the study. The study sought to compare and contrast how different disabilities affected the effectiveness of the self-determination intervention. Teachers involved in the intervention group were expected to choose an intervention from a given list. All the interventions listed were created to promote self-determination. Because the primary research question was to broadly study the effect of self-determination on a diverse pool of students, researchers decided the teachers should have the freedom to be adaptable to their students and environment. Teachers were allowed to select aspects of the study based on their preferences and what they felt would be best for the students. Every teacher involved in the study received training on the curricula that they chose to teach their students. They were also provided with all the necessary materials needed to teach the curriculums with fidelity. The interventions offered for the teachers included the following: ChoiceMaker Curriculum, Self-Advocacy Strategy, Steps to Self-Determination, Whose Future Is It Anyway, and Self-Determined Learning Model of Instruction (SDLMI; NEXT S.T.E.P. Curriculum). To measure the effect of these interventions, Arc's Self-Determination Scale and the AIR Self-Determination Scale were given to the control and intervention group participants. The result of the study was as expected. The students with disabilities who received self-determination intervention over the study drastically outperformed those in a placebo group in the self-reporting assessments.

In a different study, Neel & Hussain (2018) examined how satisfaction, basic psychological academic motivation, academic self-efficacy, and well-being of students was

affected by self-determination intervention among those with learning disabilities. The Self Determination Learning Theory, described previously from other researchers, was also analyzed by Neel & Hussain (2018) along with the Nurtured Heart Approach (NHA).

The NHA was created by a man named Howard Glasser. The original intention behind this approach was to help parents and teachers learn how to control troublesome behaviors they were seeing their children or students displaying who were diagnosed with behavioral disorders. The big idea of this theory was shifting the adult's outlook before they could shift the child's outlook. The NHA advises not to focus on the negative. Naturally, children seek attention and praise from their parents and teachers. With this understanding in mind, the NHA recommends that parents and teachers ignore any disruptive behaviors that the child is displaying. It may be very difficult to not intervene because of the intensity of the behavior, However, if the adult reacts to the undesirable behaviors, they may be inadvertently feeding into those negative behaviors. In order to break free from the constant cycle, the NHA believes the adult should not give any energy to the negative behaviors. After this approach is implemented for so long, the child will get bored of the disruptive behavior they are displaying because they are not getting the attention they seek.

Instead of focusing on the negative, the NHA teaches parents and teachers to energize the positive. The adult should consciously be aware of and give constant praise to the students when they are exercising desirable behavior. When the adult turns to the positive and feeds into desirable behavior, this affirmation communicates to students that these new actions give them the attention that they desire and make them feel important and appreciated. The students feel a new sense of pride in themselves. Neel & Hussain (2018) believe that the principles of the NHA align with that of the SDT and work together to "satisfy the basic psychological needs" (p. 5). For this reason, both theories were used in the intervention sessions of students with learning

disabilities in this study and directed how the teacher interacted with the participants. A total of seven students with LD between the ages of 10-16 years old were involved. Six students were boys, and one was a girl. There was a total of 36 sessions that lasted approximately 45 minutes each. These sessions were completed over a series of three months.

The study involved three phases: pre-intervention, intervention, and post-intervention (Neel & Hussain, 2018). In pre-intervention, the students filled out a questionnaire regarding “academic motivation, well-being, academic self-efficacy and need satisfaction” (Neel & Hussain, 2018, p.7). Additionally, an informal assessment was given before the intervention to see what the students’ current abilities were in reading, writing, spelling, comprehension, handwriting, and phonemic awareness. Records were kept of the types of errors that were made and the struggles that the participants were having in each of these areas. This informal assessment gave guidance as to how to pursue the next phase involving individual interventions for every student.

In the intervention phase, the students were provided with a plan that was made just for them based off their particular needs. Every student’s intervention of the problem areas was done in ways that coordinated the fulfillment of needs as proposed by the SDT: the need for autonomy, need for competence, and need for relatedness. The need for autonomy was supported by giving the students a purpose behind what they were doing, offering choice in the work, and avoiding control amongst the interventionists. The participants were able to choose what they would like to do in each session rather than the researcher telling them what they were going to do. For every task that the child chose, an explanation was given as to why it was important and how it was useful to them. The need for competence was supported by communicating clear expectations of the tasks, as well as acceptable behaviors to the students throughout the process. Students were also given praise and positive feedback for desirable behavior, reflecting what is

discussed in the NHA. Support was given for the need of relatedness through the presence of “empathy, affection, dependability, and attunement” (Neel & Hussain, 2018 p. 4). The praise and recognition that the students were given were specific and personable. This praise and recognition helped bring about awareness to the students that the researchers saw them as individuals and the hard work that they were doing. Through the process, relationships were built. Acknowledging the students and the hard work they were doing communicated that their teacher cared about them and believed that they were capable and important. This acknowledgment showed that the researcher was considerate when it came to the students’ hardships as well as the students’ efforts that they were putting into the tasks. Neel & Hussain (2018) relay the message: “Therefore, by following the basic tenets of the NHA, support for the fulfillment of the need for relatedness was provided. In the post-intervention phase, impacts of the intervention on the participants were recorded by taking their scores on the measures of academic motivation, academic self-efficacy, well-being, and basic needs satisfaction” (p. 8).

In this study, the Basic Need Satisfaction Scale was used to measure the changes in the fulfillment of the basic psychological needs of the students (Neel & Hussain, 2018). This scale measures the three needs comprised in the SDT: the need for autonomy, the need for competence, and the need for relatedness. The results of the post-intervention scores were significantly higher than the pre-intervention scores in all three areas. The Self-Regulation Questionnaire-Academic was given to measure the students’ academic motivation. This questionnaire consisted of four sub-scales: external regulation, introjected regulation, identified regulation, and intrinsic motivation. External regulation and introjected regulation post-intervention scores were lower than that of the pre-intervention scores. Identified regulation and intrinsic motivation were the opposite: the post-intervention scores were higher than the pre-intervention scores. Lastly, self-efficacy post-intervention scores were also higher than the pre-

intervention scores. However, for well-being, results indicated no significant changes in the scores from pre-intervention to post-intervention.

Overall, Neel & Hussain's (2018) findings support the hypothesis of the SDT that providing for three needs (autonomy, competence, and relatedness) will lead to the satisfaction of basic psychological needs, an improvement in intrinsic motivation, integrated regulation, and academic self-efficacy. Along with the quantitative data that was taken in this study, there was also significant qualitative data collected. Students' motivation, effort, and attitudes towards the researcher, the tasks, and the process in general improved drastically. Another vital aspect that this research brought to light is how essential it is that educators focus on motivational support of our students with learning disabilities (LD), not focusing solely on their academic difficulties. Educators need to consciously be aware of and realize that when students with LD struggle to learn, it can be very overwhelming and excruciatingly frustrating, feelings that lead to anxiety, lack of motivation, behavioral episodes, and total shut down. As a precaution, educators need to be sure that their students' basic needs are being met. If basic needs are not being met, students are not going to be able to retain information. Having a motivational and holistic point of view when it comes to learning can prevent meltdowns from occurring. This research has shown the influence that making students feel "competent, loved, and having autonomy in behavior" (Neel & Hussain, 2018, p. 10) can have on their motivation for learning.

Finally, besides merely making a difference in students' motivation and self-regulation, these intervention strategies can also foster a stronger relationship amongst students and their teachers. Not only will these methods help those with learning disabilities, but they can also make a positive impact in the general education classroom as well. Neel & Hussain (2018) note, "Both SDT and NHA can show us the way to improve the educational environment in general

where students with LD can experience greater involvement in learning and effectively cope with educational challenges” (p.10).

The Self-Determination Theory was also studied by Wang et al. (2019). They studied how the aspects of the Self-Determination Theory, including competence, autonomy, and relatedness, affect students’ motivational processes of need satisfaction, motivation, and outcomes in the classroom. This study took place in Singapore. There were 1,549 total participants—757 boys and 775 girls—with a mean age of 14 years old. The first part of the experiment involved an explanation about the research project including why the researchers were doing it and what each participant’s role was. It was understood that participation was voluntary; participants could drop out at any time if they so choose. After background information on the study was given, the participants completed a questionnaire that took around 30 minutes to fill out. The first measurement tool was an assessment that included 16 questions in length. It studied the students’ need for satisfaction based on the overarching question: “How do you feel when you are in this class?” The assessment was broken down into three subcategories: student need for autonomy, student need for competence, and student need for relatedness. Each of these subcategories included five or six questions about that concept adding up to the 16 total questions. The participants responded to the questions using a 7-point scale that ranged from 1 (not true at all) to 7 (very true). An example of a question under student need for autonomy was, “I can decide which activities I want to practice in this class.” An example question under need for competence included, “I think I am pretty good in this class.” Lastly, an example under need for relatedness included, “In this class I feel supported.”

The next measurement tool was a scale adapted from Perceived Locus of Causality questionnaire (PLOC) that tested students’ motivational regulation. This assessment wanted the students to complete the statement— “I participate in this class because. . . .” There are 14

statements broken down into four subscales that are listed for students to complete. The subscales are Intrinsic Motivation, Identified Regulation, Introjected Regulation, and External Regulation. An example statement under Intrinsic Motivation included “Because learning things in this class is fun.” An example under Identified Regulation was “Because I want to improve academically.” An Introjected Regulation question was “Because I want the teacher to think I'm a good student” and lastly, an External Regulation question was “Because I will get into trouble if I don't.” Again, the students had to respond to how they felt in terms of these statements based on a 7-point scale that ranged from 1 (not at all) to 7 (very true). For scoring purposes, Intrinsic Motivation and Identified Regulation were combined under the term “Autonomous Motivation,” and Introjected Regulation and External Regulation were combined using the term “Controlled Motivation.”

The last intervention in this research was called the Intrinsic Motivation Inventory (Wang et al., 2019). This assessment consisted of 12 responses stemming from the main question, “How do you feel when you are in this class?” The level of the participants’ intrinsic interests including perceptions on enjoyment, value, and pressure during instruction were measured. An example of a statement under enjoyment was “I enjoy learning in this class very much.” An example under value was, “I believe learning in this class can be of some value to me.” Lastly, an example statement under pressure was, “I feel very tense when learning in this class.” The students were to respond to each of the 12 statements using the same 7-point Likert scale as the other measurements ranging from 1 (not at all true) to 7 (completely true). Structural Equation Modelling (SEM) was the main analysis used to study the results of the interventions. The study resulted in the students scoring relatively high in relatedness, autonomous motivation, enjoyment, and value, and low in pressure.

Overall, the three psychological needs—competence, autonomy, and relatedness—were found to be linked together to positively influence autonomous motivation, leading to higher enjoyment, value, and lower pressure. Relatedness was found to be the strongest predictor of autonomous motivation. Autonomy and relatedness were not shown to be tied to controlled motivation. However, competence did predict controlled motivation amongst students. Competence was a major cause of pressure felt among students. The findings of Wang et al. (2019) align with the objectives of the SDT and add insight on the three psychological needs and their various effects.

The research completed by Palmer et al. (2012) analyzed self-determination specifically in high school students with mild to moderate levels of intellectual disabilities. An evaluation of the Beyond High School Model was used in this study. The primary research question asked was if the Beyond High School model, “a multi-stage model to promote student involvement in educational planning” (Palmer et al., 2012, p. 1), effectively implemented self-determination for students with intellectual disabilities. The study included 109 students, all between the ages of 17-21 years old. The BHS Model consisted of three stages.

In the first stage, the participants made short-and long-term goals for themselves that revolved around things that they preferred, their current interests and abilities, and ways they can become more involved in their own Individualized Educational Plan (IEP). After the goals were created, the students were taught how to plan and make appropriate decisions related to their transition procedure. This process was done through various strategies and methods that were meant to prepare the students to be active participants and directors of their own educational planning process. Just as Wehmeyer et al. (2013) had incorporated “Whose Future Is It Anyway?” (WFA) in his study, Palmer et al. (2012) also used this same self-regulated transition planning procedure to evaluate the BHS Model’s effect on self-determination. Palmer et al. (2012)

indicated that the Self Determined Learning Model of Instruction (SDLMI) was also used to help students independently manage the instructional process by setting goals, coming up with an action plan, and monitoring and evaluating their own progress.

In the second step of the BHS Model, the students assemble a student-led meeting with advisors. In this meeting, the students use the skills that they acquired in the first stage to present their goals. Then, the advisors give advice and assist the students on refining their goals, clarifying aspects of their goals, or distinguishing objectives to meet their goals. However, the advisors are to be conscientious about not taking over and replacing student goals. The advisors' job is to figure out how the students can make the existing goals better.

In the third and final stage of the BHS model, the student takes what they learned from their meeting in the second stage to finally put their plan into action. They learn how to progress monitor the goals that they made, evaluate their growth, and revise their plan as needed. This process is covered in the third phase of the SDLMI. The Arc's Self-Determination Scale was the instrumentation used in this experiment to measure if there were any changes in the level of self-determination of the students that participated in the BHS Intervention. The details on this measurement tool were described above. The results from the pre-intervention scores compared to post-intervention scores showed a substantial increase in the students' self-determination scores. It was discovered that the greatest factor in the scores was the level of intellectual impairment. When comparing genders, there were no significant effects.

Not only did Wehmeyer et al. (2013) and Palmer et al. (2012) find success with the use of the (SDLMI), Shogren et al. (2012) did as well. The research by Shogren et al. (2012) involved a two-year-long study comprised of a control group and treatment group of students. Shogren et al. (2012) studied how implementing an intervention using the SDLMI can impact accomplishments in academics, transitioning, goal attainment, and access to the general education curriculum in

students with intellectual and learning disabilities. A total of 312 students that were receiving special education services at the time participated in this study. Thirty percent had an intellectual disability, and seventy percent had a learning disability. In the first year, the participants were assigned to be in the control group or treatment group at random. The intervention involving the SDLMI was provided to the treatment group, but not to the control group. In the second year, however, those in the control group also began to receive instruction using the SDLMI model along with the treatment group in order to prevent unintentional regression.

The three phases of the SDLMI were used by Shogren et al. (2012) just as Palmer et al. (2012) had incorporated them into her BHS Model. In Shogren's et al. (2012) research, special education teachers were trained on the SDLMI after which they taught the intervention to students in the treatment group. The objective was to teach the students how to set and attain goals, both academically and functionally. The three phases involved the same steps that Palmer used in the BHS model: 1. Set a Goal, 2. Take Action, and 3. Adjust Goal or Plan. The questions involved in these phases were connected to a list of teacher objectives and educational supports for the instructors to use as a guide to help promote self-directed learning.

The results of Shogren's et al. (2012) study further supported previous research that had already been done on the SDLMI. The data revealed that teaching the SDLMI helped to improve the attainment of academic and transition-related goals of students with learning disabilities and intellectual disabilities. Not only did the SDLMI help many students to reach their goals, but it also enhanced the students' access to the general education curriculum. Shogren's et al. (2012) findings reveal the effectiveness of the SDLMI and the many benefits that its implementation offers to educators to enhance the academic and transition-related domains of students.

Technology's Impact on Self-Determination

There have been several measurement tools for assessing and promoting self-determination; however, in today's day and age, technology can also make an impact on self-determination. The study by Wehmeyer et al. (2011) proved this statement to be true in their study involving a randomized treatment group and control group. Their research investigated the effectiveness of cognitively accessible technology in relation to self-determination of students who are involved in transition planning. A total of 194 high school students who receive special education services in various disability categories were participants in this study. Students who were placed in the control group were provided with an intervention to foster student involvement in transition planning. Students who were placed in the treatment group were provided with support technology in addition to the selected intervention. This technology included WebTrek, Decision Manager, and AIMS Task Builder. These are all considered "cognitively accessible computer software programs that are designed to support greater independence in decision making and to facilitate exploration related to transition" (Wehmeyer et al., 2011). This study involving the control group and treatment group ran for the remainder of the school year. The data gathered at the end of the school year showed that the treatment group who received technology support along with the intervention made more progress in terms of student involvement in transition planning and enhanced self-determination.

In a study by Raley et al. (2019), technology was used in a different way. Raley et al. (2019) compared the overall self-determination scores of students who took the online administration versus the paper-pencil administration of The Self-Determination Inventory: Student Report (SDI: SR). The SDI:SR is a self-assessment measurement tool used to assess and give feedback on how one feels in terms of one's ability to be self-determined. The SDI: SR is 21 questions in length and is considered a reliable evaluation for students with and without

disabilities between the ages of 13-22. It was also created to affiliate with the Causal Agency Theory. The Causal Agency Theory “integrates modern theoretical frameworks and technological advances in measurement to assess self-determination” (Raley et al., 2019). The purpose of this study was to inform future research on which form of administration produced the higher self-determination scores, which format best met the needs of students, and whether disability played a role in response to the format in which the test was given. This study had a significant number of participants--4,741 students. There was also a large representation including various disability labels and varying races/ethnicities. Most of the students (75.7%) took the test online, and 24.3% took the paper-pencil version of the SDI: SR.

The findings indicate that there were differences in the overall SDI:SR scores of online versus paper pencil; however, disability type did not appear to influence the outcome. All students who took the paper-pencil test, whether they had a disability or not, received higher self-determination scores compared to those who took the online format. It was noted that one reason for this result may be discrepancies between the online and paper-pencil versions. The difference was thought to be due to the online version having a wider scale (0-99) compared to that of the paper-pencil version (0-20). The process of rounding up the paper-pencil responses to align the scales may have provoked an upward bias to the paper-pencil scores. Questions remain as to the origin of the differences amongst the two assessment types. The differences could be caused by “variation in the scale, accessibility features embedded in the online version, or both” (Raley et al., 2019). The exact reason is difficult to pinpoint; therefore, it was suggested this discrepancy should be investigated in future research.

Another way that technology has impacted self-determination is through Microswitch Technology. Roche et al. (2015) studied how utilizing microswitch technology can facilitate self-determined responses of children with profound and multiple disabilities. Microswitch

technology involves assistive technology devices activated with minor responses such as turning the head, moving the fingers, or opening and closing the eyes. The device is typically used in conjunction with a computer. This type of technology was created to help people with cerebropathy, spastic tetraparesis, epilepsy, vision impairment, and profound intellectual disability. Although Roche et al. (2015) did not carry out action research on her own, she reviewed 18 other case studies that involved microswitch technology. The studies were centered around enabling children to perform one of three self-determination responses: access preferred incentives, choosing between incentives, or increasing the attention/social interaction of the child.

The end results of all 18 studies in all three categories were consistently positive. The data revealed the benefits of utilizing microswitch technology in educational programs for children with profound and multiple disabilities. The technology proved to make a lasting impact on the students' environment and interaction with their peers. Roche et al. (2015) found that the children successfully displayed an increase in self-determination by means of deciding on the form of stimulation the children wanted to access, along with deciding when they wanted to access the form of stimulation that they preferred, and lastly, the point in which they wanted to initiate a conversation. It is known that self-determination incorporates more in-depth aspects and approaches than solely these three responses; however, "enabling children with profound and multiple disabilities to independently perform such responses would nonetheless seem to be highly functional and potentially quite empowering" (Roche et al., 2015, p.11).

Huang et al. (2019) dives into another aspect of applying technology to promote motivation among students. In this study, virtual reality technologies are investigated with the framework of the Self-Determination Theory (SDT) explored in previous studies. The purpose of this research was to determine if 3D virtual reality technology can contribute and make a

difference in enhancing the learner's motivation, engagement, experience, and behavioral intentions. Virtual reality technologies provide an "immersive and interactive experience for supplementing traditional classroom lecture and creating innovative online learning in education curricula and professional training" (Huang et al., 2019, p.1). After taking part in a virtual learning experience, participants were asked to fill out an online questionnaire with closed-ended questions that asked them about their experience. The results showed a positive connection between autonomy and relatedness and intrinsic motivation. The 3D virtual world is known to be interactive, hands-on, and choice-driven. These considerations indicate that increased levels of feeling autonomous and connected with those experiencing the same virtual world is linked to enhanced intrinsic motivation.

Dr. Michael Wehmeyer, a well-known and widely respected expert on self-determination agrees with Huang et al. (2019) and takes it one step further by pointing out that technology in general is very hands-on and choice driven (Haydon & Masthay-Bermudez, 2021). Dr. Wehmeyer expresses, "If your children want to know a fact, they can Google it, and if they have the skills, they'd be able to discern what is true and not true to get the answers they need." (qtd. in Haydon & Masthay-Bermudez, 2021). The technical age has brought about a fundamental change to the way students with or without disabilities can access information which Wehmeyer feels needs to be addressed amongst educators. (Haydon, & Masthay-Bermudez, 2021). Before technology and the internet, memorization has been a huge part of our school system but according to Dr. Wehmeyer, "the internet actually free us up to focus on learning more around what's meaningful and what matters to the student" (qtd. Haydon & Masthay-Bermudez, 2021). Wehmeyer believes a fundamental systemic change could be necessary to better utilize the advantages of technology.

Multiple Perspectives and Supports on Self-Determination

Measurement tools and technology play a major role in the self-determination of students with disabilities; however, parents, teachers, and paraprofessionals perspectives can also make a difference in promoting self-determination in their children and their students. Multiple perspectives on self-determination were collected from high school students with Autism Spectrum Disorder (ASD) in a study done by Tomaszewski et al. (2020). The main purpose of this study was to ascertain if there is any coherence amongst students', educators', and parents' reported levels across the Self-Determination Scale. The other purpose was to assess if student and family characteristics such as disability severity, demographics, educational experience, household income, or family burdens could predict levels of self-determination of students, teachers, and parents. (The effect of demographic matters on self-determination will be examined more closely in the next section of this literature review.)

There was a total of 547 high school students with ASD who participated in this study. The participants were administered an assessment in the first year of the study to get a baseline score before the intervention started. Not only were the students given an exam, the parents and educators (including the case managers, classroom teachers, and autism support teachers that worked directly with the students) completed questionnaires on the students as well. An intervention was provided to the participants using multiple measures and scales, some of which were investigated in previous sections.

After the intervention, it was found that there were no significant correlations among students and educators, or students and parents in terms of ability. Student responses claimed to have higher levels of ability than what their parents and educators reported. No correspondences were noted between the groups in the opportunity domain. This area involves the students reporting how they feel in terms of being given the opportunity to be self-determined, and how

the parents and teachers feel in terms of how well they are providing students with this opportunity. Students reported not having much opportunity at school or at home, whereas teachers and parents reported that they thought they were providing a good amount of opportunity. The students also reported differences among their opportunities at home or school, indicating that their perceptions of both differed. This finding can be expected, given that parents and teachers are separate from each other and are aware only of what opportunities they are providing either at school or at home. It could be that educators are providing their students with opportunities; however, students may not be fully utilizing these opportunities and may need to be provided with different options or shown how to use the opportunities they are given.

These findings reveal that there is a lack of communication between all groups. Educators and parents both have a significant role in providing meaningful opportunities for students to foster their abilities. Tomaszewski et al. (2020) articulates that differing perspectives may signify that everyone involved, including the student, teacher, and/or family, may not be connecting on the same level to generate a positive and successful learning space where a student's self-determination can evolve.

In a different study, Kleinert et al. (2014) examined perceptions on self-determination in terms of goal setting amongst students with disabilities. The participants in this study included 205 students all diagnosed with a developmental disability between the ages of 7-21. There were 288 goals set by the students in all. The Self-Determined Learning Model of Instruction and the Goal Attainment Scaling used to create, plan, and monitor student-made goals throughout the school year were applied by the students, teachers, speech and language pathologists, and families. The purpose of this study was to examine the goal areas that students chose and the percentage of goals that were achieved. It was also questioned if there was a connection between

the goal choices made and the grade level of the student, or if there was a connection between goal choice and disability category.

The outcomes showed that the goal types were made by the students included academic, hobby/interest, communication, social, social-communication, post-secondary, and life-skill. Altogether, 205 of the 288, or 71.2% of the goals, were achieved. Kleinert's et al. (2014) findings align with the effectiveness of the SDLMI along with the proficiency of elementary-aged students accomplishing the process of selecting and implementing self-determined learning goals. In this study, the SDLMI, described as a measurement tool in a previous section, appeared to help students of all ages and disabilities have a positive perspective on self-determination and meet many of their goals related to self-determination.

Taylor et al. (2019) tailored her research around families and how they support self-determination when individuals with intellectual and developmental disabilities (IDD) are going through life transitions. No quantitative measurement tools were used in this study. Instead, qualitative research was conducted through semi-structured interviews and ethnographic observations in the case studies of two families from Canada. The interviews and observations were spread out across the year and given quarterly (every three months). The evaluations were aligned with the family systems theory and self-determination theory.

Through the evaluation process, it was discovered that families were very considerate of the needs and preferences of individuals with IDD. The strategies and approaches used with the children were individualized and well-balanced between independence and security. Both families were very supportive of their children. When new skills were being learned, they were accommodating and knew how to scaffold instruction. The families collaborated with their child to set short-and long-term goals to help them increase their independence. All family members took part in the planning and implanting of the transitions. Taylor et al. (2019) conveys that not

only did the families support the outward, academic needs of the young adult with IDD, they also supported their psychological needs for relatedness, autonomy, and competence, granting the students the ability to experience self-determination.

The results imply that family members were positively promoting self-determination as well as transition planning. This research illustrates that a lot can be learned on how to promote self-determination by simply interviewing and observing families of students with disabilities and sharing what worked for them and with what they still need help. We can learn from connection and communication with each other how to best meet the needs of all students.

In the study by Carter et al. (2013), 627 parents of children with intellectual disability or autism were examined. The purpose of this research was to view the parents' perspectives on self-determination and evaluate how parents feel in terms of their child's self-determination. They were asked to "(a) rate the importance of seven component skills associated with self-determination, (b) assess their children's performance in relation to those seven skills, and (c) evaluate the overall self-determination capacities of their children" (Carter et al., 2013, p.1).

The scores from the survey given to the parents were all unanimous on the importance of their children learning the seven elements connected to self-determination. Although parents rated their children learning the self-determination skills with high importance, most reported that their children were not successful in these skills. Lastly, it was found that the disability the student was diagnosed with was a main predictor in how the parents rated the student's level of self-determination and overall capacity. Children with severe and profound disabilities were perceived to have more limitations. Age was not seen to be relevant when rating the students' overall self-determination skills or self-determination capacity.

Research that has been done on this topic in the past, studying the effects that interventions on self-determination can have, are typically seen only within a school setting

where teachers are the interventionists. However, teachers are not the only essential mentors in children's lives. Parents and caregivers also play a vital role in helping their children with the acquisition and generalization of skills associated with self-determination. Even though the parents ranked their children at a low level in terms of their children's performance of self-determined behaviors, all seven of the essential skills of self-determination were highly valued (Carter et al., 2013). Again, these findings highlight the need for communication and collaboration among all persons involved in the child's life. Teachers should offer recommendations to families and equip them with the tools needed to better support the development of their children's self-determination.

Chu's (2018a) research was centered around young children with disabilities between the ages of three and six. This research had the same intention as the previous researchers—to examine parents' perspectives regarding promoting self-determination in their children with learning disabilities. However, since this study was looking at young children in particular, the foundational skills were at the forefront. Like Taylor et al. (2019), Chu (2018a) also used in-depth, semi structured, face-to-face interviews to gather the data on parents' expectations, experiences, and perspectives on self-determination. A total of 21 families were involved. Interviews with each family were recorded with a digital voice recorder, with each lasting between 60-90 minutes. In every interview, the families were asked a set of broad, open-ended questions that centered around gaining the parents' perspectives in relation to the following: “(a) the strategies that parents use to promote the foundations of self-determination for their children, (b) the limitations and concerns that fostered the achievement of the foundational abilities of self-determination for their children, and (c) the factors, experiences, and expectations regarding parent–professional partnerships” (Chu, 2018a, p.4). At the end of the interviews, the recordings were analyzed to see if any similarities appeared.

After analyzing the data, four major themes emerged. Just as Carter et al. (2013) found, all parents in this study thought highly of self-determination and recognized the importance of facilitating this quality in their children. Families used multiple strategies to build foundational skills of self-determination at home. Another common topic described in the interviews were the various challenges that many families faced amid giving their child foundational supports at home. Some of the challenges mentioned dealt with the child's specific disability, health conditions, the parents' schedules, and family support. Many of the challenges referenced depended on many aspects including the child's characteristics, family values, and their cultural environment. (The impact that diversity can have on self-determination is explored in the next section.)

Another theme that emerged were the families having very similar expectations for their children in terms of being self-regulated and engaging in choice-making and other activities. The last common component that was highlighted involved families considering the importance of creating a positive partnership with everyone involved in the child's life, as well as recognizing their importance in the role that they play to promote self-determination in their children. These findings are similar to previous research studying family's perspectives.

Chu (2018b) conducted a similar study researching the same concepts—parents' perspectives regarding promoting self-determination in their children with learning disabilities; however, it was with a larger number of participants. Rather than 21 families, this research included 102 families. Many of the same conclusions that were found in the first study emerged. Chu (2018b) indicated that the families were exuberant regarding the idea of fostering self-determination skills designed for their small children with disabilities. Attributes such as the family's education, income levels, and the severity of the children's emotional and behavioral

problems were associated with how the family perceived their children's foundational self-determination skills.

The work done by Seo (2014) considers the perspectives of general and special education teachers on promoting self-determination of their students at the elementary and secondary level. A total of 328 teachers were in this study: 148 were elementary school teachers, and 180 were secondary teachers. The purpose of this research was to assess the extent to which teachers value and provide instruction to promote self-determination in their students with disabilities. Seo (2014) also questioned if the grade levels that teachers were a part of, as well as the program type, had any influence on the teacher's value and instruction of self-determination; for example, a general education class involving students with disabilities, a class without disabilities, a special education pull-out setting, and specialized instruction in a separate specialized school. Data was collected via a survey either online with SurveyMonkey.com or with a paper-pencil version. The survey took approximately 15-20 minutes to complete. This questionnaire followed the 6-point Likert scale that rates between 1= low/never to 6= high/often. The questions were based on the seven factors of self-determined behavior: (1) self-awareness and self-knowledge skills, (2) decision making, (3) self-advocacy and leadership skills, (4) choice making, (5) goal setting and attainment, (6) self-management and self-regulation skills, and (7) problem solving.

The results of this survey showed that all teachers, whether general education or special education, thought highly of self-determination. It was found that general educators taught instruction related to self-determination significantly less than that of special educators; however, more than a quarter of special education teachers responded that none of their students had IEP goals associated with self-determination. Under 10 percent of special education teachers relayed that all their students are working on goals to foster self-determination. The data did not reveal any significant differences in terms of program areas, grade level, and elementary versus

secondary teachers. The number of opportunities given were the same. Both elementary and secondary teachers responded that they present self-determined instructional skills sometimes to occasionally.

The findings did, however, uncover that secondary teachers placed higher value on the importance of self-determination as a curriculum priority compared to elementary teachers. The overall results of this study match those seen in the other studies mentioned above. Teachers rate self-determination as being a highly essential skill; however, many of them are not teaching the necessary skills in their classrooms to help promote self-determination in their students. In this study, more than 67% of general education teachers marked that they were not cognizant of the concept of self-determination. Considering this finding, teachers should be given the opportunity to take part in professional development trainings and workshops that teach about the concept of self-determination, the necessity and importance of it, and strategies or programs to improve their students' self-determination.

To feel confident in teaching the necessary skills to promote self-determination, Liu et al. (2020) notes how crucial it is for school principals to permit and be open and accepting to the various teaching styles that are seen in the classroom environment. The findings in the study by Liu et al. (2020) determined that teachers' inner needs of feeling competent, self-sufficient, and being affiliated with their students and their needs, may be hindered if they feel pressure from school authority. This finding, in turn, may affect the motivational strategies given in the classroom for self-determination.

Lane et al. (2012) directs the attention to the one person that works closest with students with disabilities during the school day—the paraprofessional. The paraprofessional's involvement in the delivery of self-determination instruction with students of high-incidence disabilities was analyzed. 223 paras from 115 public schools were randomly selected to

participate in this study. Results indicated that paraprofessionals allocated a substantial amount of significance to all seven of the fundamental aspects of self-determination. Again, it was reported, that the degree to which the paraprofessionals provided instruction that addressed each of the seven elements of self-determination was mild (Lane et al., 2012).

Discovering that a large majority of teachers, paraprofessionals, and families are unacquainted with the concept of self-determination and how to teach it to their students and children may be reason why we are seeing such low levels of self-determination amongst our students, especially those with disabilities, given their additional learning challenges.

Diversity's Role in Promoting Self-Determination

As noted, a few times throughout this review, aspects of diversity such as disability, race, gender, background, culture, and socioeconomic status have implications for the promotion of self-determination. A study by Shogren et al. (2018) investigated how a student's disability, race-ethnicity, and socioeconomic status can impact the score on the Self-Determination Inventory exam. This study included a total of 4,165 participants ranging in age from 13-22 years old. The participants were divided into 20 groups made up of students with and without various disabilities and of various ethnicities.

The highest scores reported on the SDI: Student Report were Caucasian students without disabilities compared to peers with disabilities from other racial-ethnic backgrounds. Among those on the autism spectrum, Caucasian students did the worst. Shogren et al. (2018) indicated that it is evident that there are many other factors besides disability, race, and ethnicity that affect self-determination scores. Studying other factors could allow the opportunity for a broader and more significant insight into precise patterns of variation that can be observed with the SDI: SR. One specific trend that the author found was that those who were eligible for free and reduced lunch scored significantly lower than those who were not eligible. The researcher acknowledges

that race is an important factor but that it may be connected to the extra systemic barriers that minority groups face.

In comparison, Scott et al. (2021) agrees stating, “racially and ethnically marginalized students with disabilities might experience fewer opportunities to build self-determination due to systemic issues” (p.1) This statement points to the importance of complex systemic intervention. If a student does not have the means or access to resources, they do not have the opportunity to accomplish their goals, resulting in a lack of motivation or self-determination. There were outliers in the research. Both Caucasian children without disabilities and those with autism were not as affected by socioeconomic status as those in other ethnic groups, suggesting that Caucasian children are not as easy to assess for risk based on socioeconomic status. Hispanic children with autism and African American children with both autism and learning disabilities both had the greatest gaps in SDI:SR scores in comparison to their peers within the same ethnic and disability group. This finding might allow us to consider these groups who are eligible for the free and reduced lunch as being at risk and allow the system to focus more resources appropriately.

In a different study on diversity, Chou (2017a) investigated three elements of self-determined behavior: problem solving, internal locus of control, and autonomous functioning among two student groups: those with intellectual disabilities, and those with learning/emotional disorders. Data was analyzed from 96 middle and high school students between the ages of 13-22 years old. The three measurements included the Problem-Solving Survey, Section 1 of the Arc’s Self-Determination Scale, and the Norwicki-Strickland Locus of Control Scale.

Scores from these three measurements of self-determination indicated that both groups (those with intellectual disabilities and those with learning/emotional disorders) had different profiles; however, they were not discrepant from each other on any measure in particular. Chou

(2017a) expresses the combination of three variables was useful in confirming the membership of two dichotomous groups. The difference in scores of the three measurements implies that students with intellectual disabilities and students with learning/emotional disorders have separate instructional needs and should not be categorized as requiring the same instructional approaches. Differentiated instruction among these two groups of students are essential.

In a study Zheng et al. (2014), gender, income, and urbanicity are considered in conjunction with how self-determination and self-concept can affect the academic achievement of students with learning disabilities. The findings indicated a significant association among the level of a student's self-determination and their academic achievement. In other words, students of all backgrounds, regardless of a student's socioeconomic status, place of residence, or gender category, who took the responsibility upon themselves, were able to establish and achieve their goals. Zheng et al. (2014) reasons that "Teaching self-determination skills to students, regardless of their personal or environmental characteristics, has the potential to improve students' academic achievement" (p.9). This analysis seemingly contradicts the viewpoints of Scott et al. (2021) and Shogren et al. (2018), whose findings suggested that socioeconomic status, disability, and race are all factors that play a major role in improving students' self-determination. Shogren et al. (2018) specifically spoke to the need for strong consideration of a systemic intervention because the current system favored students of higher economic status.

Licardo & Krajnc (2016) studied the differences in self-determination scores amongst students with and without disabilities, along with a focus on how these factors coincide with gender and grade point average. In line with the findings of other studies, Licardo & Krajnc's (2016) data found students with disabilities to have lower average self-determination scores than students who do not have disabilities. Gender did not seem to make a difference in the self-determination of students without disabilities. However, the females tended to have higher

average scores than males. This was the opposite case for students with disabilities, where the males had higher self-determination scores than the females. Having a high GPA indicated having higher self-determination. Disability did not seem to influence GPA. Both students with and without disabilities who had higher GPA's also had higher average self-determination scores (although it was significantly higher for those without disabilities, compared to being relatively high average scores for those with disabilities). Licardo & Krajnc (2016) express, "Academic achievement is one more reason for promoting the development of self-determination within this population of students" (p.13).

Research by Parker et al. (2020) specifically examined African American high school students and what factors accelerate and what factors hinder or are barriers to their expression of the major self-determination skills, such as self-advocacy, choice/decision making, goal setting, and attainment. Four major categories emerged: personal facilitators, personal barriers, contextual facilitators, and contextual barriers. The personal reasons why the students used multiple self-determination skills included the following: having a desire to be more independent, making an attempt to cope with low teacher support, having concern about the future and the consequences of their actions, and having desire to seek support from teachers to do well in school. The two personal barriers hindering the students use of self-determination skills were their personal choice to avoid support and having academic and social-emotional challenges. The main contextual facilitators to help promote the students' self-determination skills were support from parents, school counselors, and teachers. However, these same contextual facilitators were also seen as the contextual barriers in expressing various self-determination skills if the students felt they had inadequate support from their counselors and teachers. Lastly, it was also discovered that part of the students' intentions for applying or not applying self-determination skills were impacted by what they considered to be offensive,

vindictive, racist, or restrictive, such as school counselors not allowing the students to enroll in advanced courses, and teachers having pessimistic insights about students who are African American. Parker et al. (2020) acknowledges that “Findings from this study support ongoing calls for educators to consider students' cultural backgrounds and lived experiences when promoting their expression of self-determination skills” (p.1).

Future Research

Given that so many teachers are not competent on the concept of self-determination, an area for future research could include the impact that providing professional development opportunities to educators on the promotion of self-determination amongst their students could make. Another area for future research is turning the attention to the students on a broader scale that includes multiple disabilities, backgrounds, and races and asking what is it that we as educators and parents can do to help various student populations improve their self-determination.

Conclusion

The principal finding from this literature review is that there are multiple aspects to promoting self-determination. There is not one right approach, but rather a slew of answers that work together to help students with and without disabilities enhance their self-determination skills. It is also essential to mention that just because one strategy worked for one student, it may not work for the next due to every student having different needs. Every adult who is involved in a student's life including parents, teachers, paraprofessionals, counselors, and coaches need to be aware and supportive of differences. The students have a role in their own self-determination; however, the adults in a child's life are the foundation. Whereas many authors and researchers have tried to standardize measurement and implementation of self-determination through various

practices and perspectives including measurement tools, technology, supports of others, and through types of diversity, there is not a one-size-fits-all answer or solution. There will always be outliers. Self-determination on a broad scheme is a very complex issue that will need to be addressed systemically and individually.

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