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Exploring Self-Determination and Recreational Sports Participation for Adolescents with Disabilities

Samantha K. Papp
University of Southern Mississippi

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The University of Southern Mississippi

Exploring Self-Determination and Recreational Sports Participation for Adolescents with
Disabilities

by

Samantha Papp

A Thesis
Submitted to the Honors College of
The University of Southern Mississippi
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of Honors Requirements

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Approved by:

Audra I. Classen, Ph.D., Thesis Adviser
Assistant Professor of Special Education

Joann P. Judge, Ph.D., Thesis Adviser
Assistant Professor of Physical Education

Sandra Nichols, Ph.D., Director
School of Education

Ellen Weinauer, Ph.D., Dean
Honors College

Abstract

Self-determination is a vital skill for individuals with disabilities and provides significant benefits, such as more positive adult outcomes and greater quality of life. Recreational sports participation is another fundamental aspect of life for individuals with disabilities, as it leads to increased physical activity, enhanced self-esteem, and improved peer acceptance. Despite the well-researched benefits of both self-determination skills and recreational sports participation, a literature review revealed few studies that examined the relationship between self-determination and recreational sports participation for individuals, particularly adolescents, with disabilities. This mixed methods study was designed to fill this void, using questionnaires, interviews, and observations to explore the intersection of self-determination and recreational sports participation for adolescents with disabilities. The results of the study suggested that students and parents had not considered self-determination in conjunction with recreational sports. Categories and themes derived from qualitative analyses supported the quantitative analyses indicating that three rounds of self-determination coaching and feedback combined with action plans improved student self-determination. The results provide significant implications for coaches, parents, and teachers to promote and support self-determination within recreational sports environments. Future research should continue to explore ways to support the development of self-determined activities and abilities for individuals with disabilities within recreational sports, enhancing the generalizability of the present study and expanding the findings to provide models for infusing self-determined learning opportunities within recreational sports for adolescents with disabilities.

Keywords: adolescent, advocacy, disability, mixed methods, physical education, recreational sport(s), self-advocacy, self-determination, sports

Dedication

I dedicate my thesis to my grandfather, Richard Freund.

Grandpa, thank you for sharing your passion for knowledge with me.

You are intelligence personified.

You embrace life's hardships with true perseverance and genuine strength.

You are one of the wisest and fiercest people I know.

I hope to always emulate these traits that you have instilled in me.

I love you.

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My parents, sisters, grandparents, aunts, uncles, cousins, boyfriend, friends, teammates, and coaches are my biggest fans, my cheerleaders, my supporters, my editors, my early morning coffee dates, and my fellow late-night cookie indulgers. They unwaveringly endure my stresses and celebrate my successes with me. I could not have completed this project without them.

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List of Abbreviations

AIR	American Institutes for Research
ANOVA	Analysis of variance
ASD	Autism Spectrum Disorder
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Plan
IRB	Institutional Review Board
N	total number of cases
n	number of cases in a subsample
PE	physical education
PI	principal investigator
SD	standard deviation
SDLMI	Self-Determined Learning Model of Instruction
SDS	self-determination scale
SPSS	Statistical Package for Social Sciences
SWD	students with disabilities

Chapter 1: Introduction

Since the early 1990s, research has increasingly targeted the importance of establishing self-determination as a vital skill for individuals with disabilities (Shogren et al., 2008; Wehmeyer, Bersani, & Gagne, 2000). Wehmeyer (1999) described self-determination as being a causal agent in one's life by making choices and decisions with support, if needed. A functional model of self-determination, according to Wehmeyer, involves considering the capacity to act in a self-determined manner, the opportunities to do so within a person's environment, and the possible supports needed to be involved in the component elements such as choice-making, decision-making, problem-solving, goal-setting, and advocating for oneself, to name just a few. Others agree that self-determination is a complex construct with many essential characteristics, including self-knowledge, problem-solving skills, goal-setting and attainment abilities, and self-regulation. Self-determination has been linked to students' successful transitions into adulthood (Field, Sarver, & Shaw, 2003), positive adult outcomes such as living independently and increased employment percentages (Caldwell, 2010; Callahan, Griffin, & Hammis, 2011; Martorell, Gutierrez-Recacha, Pereda, & Ayuso-Mateos, 2008; Wehmeyer & Palmer, 2003), and greater quality of life (Mcdougall, Evans, & Baldwin, 2010; Miller & Chan, 2008; Wehmeyer & Schwartz, 1998).

Many studies have examined the impact of teaching self-determination to individuals with disabilities. The Self-Determined Learning Model of Instruction (SDLMI) describes three self-determined learning model phases (i.e., set a goal, take action, and adjust goal or plan by evaluating the goal and action plan) that provide regular opportunities for participants to engage in all facets of learning (Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000). Martin et al. (2003) considered self-determination from the concept that learning is a function of the chances

that individuals have to adjust, an idea rooted in step three of the SDLMI (Wehmeyer, Palmer, et al., 2000). Encouraging students to adjust as they engage in the learning process has been used in previous research (Kern, Ringdahl, Hilt, & Sterling-Turner, 2001; Zimmerman, Bonner, & Kovach, 1996) and is not a new approach to instructing self-determination (Martin et al., 2003).

Additional research has used problem-solving as a means of increasing self-determination. When individuals experience increased efficiency at goal-setting and problem-solving, they in turn increase their self-regulation and self-determination (Wehmeyer, Palmer, et al., 2000). In a study conducted by Wehmeyer et al. (2012), teachers used the SDLMI to support student participants ($N = 312$) as the students set and pursued goals. The results of this study indicated the SDLMI's effectiveness at promoting student goal-attainment and self-determination. In another study, student participants identified goals that they wished to pursue (Agran, Blanchard, Wehmeyer, & Hughes, 2002). The results of this study revealed that students with disabilities can achieve self-selected goals through problem-solving. Self-determination in the above studies focused on involving students in the process of setting goals and adjusting to problems that may interfere with goal achievement.

Further research suggests that individuals with disabilities need deliberate instruction in self-determination (Field & Hoffman, 2002; Lehmann, Davies, & Laurin, 2000). Additionally, Field, Hoffman, and Posch (1997) suggest that fostering self-determination is essential for adolescents with disabilities. One way of providing deliberate self-determination instruction is through coaching, which is a personalized approach intended to increase reflective thinking and encourage students to create plans for reaching their own goals (Ju, Zeng, & Landmark, 2017; Parker & Boutelle, 2009). Coaching often involves monitoring through conducting observations and providing individualized support (Gettinger & Stoiber, 2008). Coaches also serve as

facilitators to goal-directed self-regulation (Grant, 2003). In one study, researchers provided youth-directed self-determination coaching to students with disabilities to facilitate students' achievement of self-identified goals (Powers et al., 2012). Another study used coaching as a self-determination intervention within physical activity counseling (Van Hoecke, Delecluse, Opdenacker, & Boen, 2014). The results of these studies suggest that coaching combined with self-determination instruction can improve several outcomes, such as quality of life, high school completion, and independent living.

Action plans are often used with coaching to facilitate the achievement of self-directed goals. For example, Neuman and Cunningham (2009) used coaching sessions that involved development of goals, identification of outcomes, creation of action plans, and reflection. Further, research suggests that the combination of observations and individualized feedback plays a vital role in learning (Epstein, 1993; Birman, Desimone, Porter, & Garet, 2000). The process of goal-directed self-regulation involves setting a goal, developing an action plan, taking action, monitoring via self-reflection, and evaluating progress towards the goal (Grant, 2003). The studies indicate that action plans can facilitate progress towards self-directed goals, which Wehmeyer and Schwartz (1998) assert is a critical component of self-determination.

In addition to the benefits of self-determination, physical activity also has advantages for individuals with disabilities. Physical activity is often associated with many long-term health benefits, such as preventing weight gain, minimizing the chance of obesity, and preventing diabetes (Reiner, Niermann, Jekauc, & Woll, 2013). Physical activity can also provide emotional benefits such as enhanced mood and increased motivation (Anderson & Brice, 2011; Klusmann, Evers, Schwarzer, & Heuser, 2012). For individuals with disabilities, physical activity can lead to healthier lifestyles, elevated self-esteem, increased peer acceptance, and higher quality of life

(Adam & Morgan, 2018; Castagno, 2001; Dieringer & Judge, 2015; Gibbons & Bushakra, 1989; Heller, Gui-shuang, Rimmer, & Marks, 2002; Macheek, Stopka, Tillman, Sneed, & Naugle, 2008). While extensive research associates physical activity with advantages, statistics suggest that individuals with disabilities are not receiving enough physical activity. Physical activity for individuals with disabilities occurs 4.5 times less often than it occurs for individuals without disabilities (Rimmer & Rowland, 2008). Even when individuals with disabilities participate in physical activity, 63% are not doing so consistently enough to realize its benefits (CDC, 2005; Rimmer, Ming-De, McCubbin, Drum, & Peterson, 2010).

Involving adolescents with disabilities in physical activity through recreational sports is essential for improving their quality of life (Dieringer & Judge, 2015). Individuals with disabilities should begin participating in recreational sports in adolescent years to create a lifetime involvement in physical activity (Dieringer & Judge, 2015). While there is limited research exploring the benefits of physical activity, specifically for adolescents with disabilities, there are even fewer studies examining the impact of recreational sports and extracurricular activities for adolescents with disabilities. In light of the previous research supporting the benefits of both self-determination and recreational sports for adolescents with disabilities, there exists a need for research exploring the intersection of self-determination and recreational sports; however, there currently exists no research exploring such an intersection.

Purpose Statement

The purpose of this study is to explore the intersection of self-determination and recreational sports participation for adolescent students with disabilities. For the remainder of this paper, *students* or *students with disabilities* (SWD) refers to the adolescent students who participated in the study. The research questions of the project are as follows:

Qualitative Research Questions

- What are the students' current self-determination skills related to recreational sports?
- What are facilitators and barriers to recreational sports participation for SWD?
- What are commonalities within student and adult self-determined behaviors?

Quantitative Research Questions

- What are the students' current self-determination skills related to recreational sports?
- What impact does coaching support and video feedback have on self-determination assessment scores?

The research question “What are the students' current self-determination skills related to recreational sports?” is listed in both categories because qualitative and quantitative data both contribute to answering this question. In response to these research questions, the principal investigator (PI) hypothesized that the students would have limited experience with self-determination within their recreational sports with few skills regarding self-determination and sport. Further, the PI hypothesized that coaching support and video feedback would increase self-determination scores.

Chapter 2: Literature Review

To establish a foundation for the present study, the PI sought to discover what research, if any, examined self-determination in a recreational sports environment for SWD. For the purpose of this study, the aforementioned definition of self-determination as described by Wehmeyer and Schwartz (1998) guided the review of the literature.

The PI conducted a review of the current literature regarding self-determination skills used by students participating in recreational sports. The PI conducted the literature review through The University of Southern Mississippi's Academic Search Premier database. When searching for research articles relevant to the research question, the PI conducted four database searches. Table 1 displays information regarding each search. The PI specified the search parameters to include only articles with the following characteristics: written in English, available in full-text, peer-reviewed, and published from 2010 to 2018. The following paragraphs detail studies ($N = 5$) that (a) explored participation of individuals with disabilities in recreational sports and/or physical activity and (b) targeted self-determination outcomes for individuals with disabilities.

Table 1

Literature Review Search Terms

<u>Search One</u>	<u>Search Two</u>	<u>Search Three</u>	<u>Search Four</u>
*advocacy qualitative	*advocacy quantitative	*self-determination	*self-determination
-and sports	-and sports	qualitative	quantitative
-and disability	-and disability	-and sports	-and sports
*OR advocacy	*OR advocacy	-and disability	-and disability
-and physical education	-and physical education	*OR self-determination	*OR self-determination
-and disability	-and disability	-and physical education	-and physical education
		-and disability	-and disability

Recreational Sports Participation

The PI found two ($n = 2$) articles that addressed perspectives on recreational sports and/or physical activity (Buchanan, Miedema, & Frey, 2017; McLoughlin, Fecske, Castaneda, Gwin, & Graber, 2017). One study examined the sports participation of elite athletes with physical disabilities (McLoughlin et al., 2017). The results of this study suggested that engagement in physical activity, including organized and unorganized recreational activities, at a young age was essential for the athletes' future sports involvement and success. Further, many participants engaged in sports with nondisabled peers prior to joining adapted sports (McLoughlin et al., 2017). The participants indicated that engaging in adapted recreational sports deepened their sense of empowerment, which in turn created an avenue for them to advocate for disability in sport.

A second study by Buchanan et al. (2017) involved interviews of parents of individuals with autism spectrum disorder (ASD). This study examined parents' perspectives on the effects of physical activity on their children with ASD. The parents ($N = 9$) encouraged their children to join school sports and recreational activities and strived to enable their children's desires to engage in physical activity (Buchanan et al., 2017). Further, the parents maintained that their children continued to regularly participate in physical activity even as they moved into adulthood. The parents stated that physical activity had positive effects on their children, including enhanced mood, improved school work, increased social skills, reduced anxiety, and maintained weight (Buchanan et al., 2017). The results of this study suggested that physical activity provided significant benefits for individuals with ASD. Further, these benefits facilitated their transition from childhood to adulthood as they became more independent individuals who were successfully included in their communities.

Self-Determination Outcomes

The PI found three articles ($n = 3$) that discussed self-determination outcomes (Carter, Trainor, Owens, Sweden, & Sun, 2010; Lee et al., 2012; Mishna, Muskat, Farnia, & Wiener, 2011). One study implemented a school-based intervention program for students with disabilities in grades six through eight to increase self-advocacy, a component of self-determination (Mishna et al., 2011). Participants ($N = 68$) completed self-reports before, during, and after the study. Analyses of these reports suggest that both the participants' knowledge of self-advocacy as well as the participants' abilities to self-advocate were increased as a result of the intervention (Mishna et al., 2011).

Another study gathered information related to self-determination from students with disabilities ($N = 196$) as well as from their teachers ($N = 119$) (Carter et al., 2010). The students, parents, and teachers all completed *American Institutes for Research (AIR) Self-Determination Scales* (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994), and the teachers completed the *Social Skills Rating System – Secondary Teacher's Version* (Gresham & Elliot, 1990). The results indicated that youth with disabilities viewed their self-determination abilities more positively than their teachers did (Carter et al., 2010). According to Carter et al., this result reflected the insight adolescents have into their own self-determination, further underscoring the importance of facilitating adolescents' explorations of their own self-determination.

A study conducted by Lee et al. (2012) examined predictors of self-determination in 186 middle school students receiving special education services. The study implemented an intervention titled *Whose Future Is It Anyway?* (Wehmeyer et al., 2004). After the intervention, the researchers measured the students' self-determination using both the *Arc's Self-Determination Scale* (SDS; Wehmeyer & Kelchner, 1995) and the student version of the *AIR*

Self-Determination Scale (Wolman et al., 1994). The results indicated that higher self-determination scores were related to higher transition planning knowledge, a finding that further supports the growing literature emphasizing self-determination as essential during transition times for individuals with disabilities. Further, the study suggested that educators can enhance self-determination by promoting student involvement (Lee et al., 2012).

Literature Review Summary

The PI sought to discover what current research, if any, examined self-determination in a recreational sports environment for individuals with disabilities. The literature search revealed no studies that examined the specific topic of self-determination and recreational sports. However, many studies showed benefits of self-determination and recreational sports participation respectively for individuals with disabilities.

Several articles echoed previous research findings discussed in this paper's introduction. For example, Carter et al. (2010) emphasized the importance of student involvement in developing self-determination, which aligns with the results of studies conducted by Agran et al. (2002), Kern et al. (2001), Wehmeyer et al. (2012), and Zimmerman et al. (1996). Buchanan et al. (2017) and Lee et al. (2012) identified a relationship between higher self-determination scores and increased transition knowledge and skills, supporting the findings of the study conducted by Field et al. (2003). Further, Buchanan et al. (2017) indicated that physical activity improved the moods of individuals with disabilities, supporting previous findings by Anderson & Brice (2011) and Klusmann et al. (2012). Finally, researchers (Buchanan et al., 2017; McLoughlin et al., 2017) asserted that involvement in recreational sports at a young age led to consistent physical activity in adulthood, furthering earlier findings by Dieringer and Judge (2015).

Literature review implications for practice. The literature review results can inform

future practice for professionals working in the intersection of self-determination and recreational sports. One commonality between several of these studies was an emphasis on the need for expanding existing research to include adolescents in the fields of both self-determination and recreational sports (McLoughlin et al., 2017; Mishna et al., 2011). This commonality encourages educators, service providers, parents, and other involved parties to begin teaching self-determination skills to students at early ages. The same idea can apply to recreational sports participation; since the existing research attests to the benefits of and need for involving youth with disabilities in recreational sports, parents can facilitate student involvement in such activities.

The findings provide further implications for practice by highlighting a need for increased self-determination within sports. The results of this literature review underscore the importance of self-determination in all avenues of life, including within sports, for individuals with disabilities. As such, coaches of individuals with disabilities should seek to develop a deeper understanding of self-determination, striving to integrate self-determination development into their coaching strategies. Like their nondisabled peers, individuals with disabilities should have the opportunity to participate in recreational sports within a self-determination framework to have a positive, enriching, and successful experience. Individuals without disabilities may naturally be self-determined, but research suggests individuals with disabilities often require more support to be self-determined. The results of this literature review can inform future practice by leading parents, educators, and coaches to become more knowledgeable regarding intersections of self-determination and sport.

Literature review implications for future research. Information regarding the intersection of recreational sports participation and self-determination for individuals with

disabilities is limited. When designing future studies, researchers could explore the impact that self-determination can have on sport participation for individuals with disabilities. Further, researchers could study whether a heightened understanding of self-determination can enhance recreational sports experiences for individuals with disabilities. Additionally, the self-determination assessment methods used within the selected studies varied (e.g., phenomenological interviews, *AIR Self-Determination Scale*, and group therapy). This variation could impact the interpretation of the effectiveness of self-determination interventions as a whole. Future research could focus on a particular self-determination intervention in order to fully understand the implications and effects of specific interventions.

This literature review examined qualitative and quantitative articles, revealing positive components of both types of studies. The qualitative findings are valuable because they provide direct insight into participant experiences. On the other hand, the quantitative findings are valuable because they provide data on the overall impact of an intervention. Future research could use a mixed methods approach to integrate the positive aspects of both qualitative and quantitative studies. For example, a study could use qualitative participant interviews and observations combined with a quantitative assessment such as the *AIR Self-Determination Scale* to comprehensively evaluate student self-determination skills.

Although previous research underscored the benefits of both self-determination and recreational sports separately, this literature review highlights the lack of information exploring self-determination and recreational sports participation. As such, there is a need for research in such an intersection for adolescents with disabilities. Based on the literature review findings, the PI implemented a mixed methods design to explore the impact of individualized coaching and action plans on recreational sports experiences and self-determination skills.

Chapter 3: Method

To address gaps in research, this mixed methods research study examined students' current self-determination levels related to recreational sports and explored facilitators and barriers to recreational sports participation. Further, this project investigated the impact of self-determination coaching on students' self-determination within recreational sports. With guidance from two faculty co-advisers, the PI implemented a concurrent mixed methods design to gather qualitative and quantitative data regarding the research purpose. The following sections describe the participant demographics, the recruitment protocol, the setting, and the data collection procedures for this research project.

Participants

The PI recruited four parent/student pairs to participate in this study. For the purpose of this study, the students had to meet the following inclusion criteria: (a) range between 12-18 years of age, (b) have a disability or an individualized education plan (IEP), (c) be involved in a recreational sports or school sports program (e.g., cheerleading, softball, fitness class), and (d) have a parent or guardian willing to participate in the study. For the purpose of this study, a student with a disability was defined as any student who receives special education services due to any Individuals with Disabilities Education Act (IDEA) category (e.g., ASD, Intellectual Disability, Specific Learning Disability, Other Health Impairment, etc.). Parents agreed to provide insight about each student in pre- and post-interviews, reinforce the target self-determination skills, and facilitate communication between the PI and the student. See Table 2 for student demographics.

Recruitment

After receiving Institutional Review Board (IRB) approval from the University of

Table 2

Student Demographics

Student	Age	Ethnicity	Gender	Disability	Recreational Sport
A	17	Caucasian	Male	Down Syndrome	Basketball
B	16	African-American	Female	Specific Learning Disability	Cheerleading & Dance
C	15	Caucasian	Male	Down Syndrome	Basketball
D	17	African-American	Male	Autism	Baseball

Southern Mississippi, the PI used convenience sampling to recruit participants. First, the PI emailed the principal of a local high school with study details and included the IRB approval letter (see Appendix A). After receiving the principal's permission to observe at the school, the PI emailed special education teachers at that school to explain the study and request assistance with identifying potential participants. In this email, the PI provided a consent letter (see Appendix B), a study timeline detailing responsibilities of the PI and the participants (see Appendix C), and a copy of the IRB approval letter. The teacher sent the forms home with the students they identified as potential participants based on the inclusion criteria explained by the PI. Four parent/student pairs expressed interest in participating in this study.

The teachers informed the PI of the interested parent/student pairs, and the PI contacted the parents via phone to schedule in-person interviews. At these interviews, the PI explained the study and answered any questions the parents and students posed. Parents and students indicated a desire to participate in the study via signed forms. The PI explained that each student would receive a \$25 gift card to Books-A-Million for participating in the study.

Setting

The interview settings varied based upon participant preferences, including coffee shops and participants' homes. The settings of the observations depended on the sport that each student played. To keep the student participants anonymous, they will be referred to by their code names: Student A, Student B, Student C, and Student D. For Student A, all three observations occurred at a local high school during physical education (PE) class. The observations of Student B occurred at both a cheerleading event and at dance classes. When the observations began, Student B was in the middle of two seasons, as cheerleading season was ending, and dance season was beginning. Rather than excluding Student B from the study, the PI recognized similarities between the two sports and observed the student at the final cheerleading event and at two dance classes. For Student C, his high school basketball team's manager, all three observations occurred at high school basketball practices. Finally, the observations of Student D occurred at various recreational baseball venues as his team traveled to games.

Data Collection Procedures

Interviews, questionnaires, and observations were the primary data sources in this study. The PI, a senior Honors student studying Special Education, was responsible for all data collection. In preparing for data collection, the PI perused the *AIR Self-Determination Scales* (Wolman et al., 1994). The PI selected questions from the *AIR Self-Determination Scale: Parent, Educator, and Student Forms* (Wolman et al., 1994) to use throughout all data collection procedures, adapting those questions to suit a recreational sports environment.

During the pre-interviews, the PI asked questions (see Appendix D) that were adapted from the *AIR Self-Determination Scale: Parent Form* (Wolman et al., 1994). While the PI followed a semi-structured interview protocol, the interview questions flowed more as a

conversation. If necessary, the PI would ask follow-up questions based on parents' responses. For example, if a parent indicated that their child needed to work on making goals, the PI would prompt the parent to further explain what specific goals the student needed to target.

After the pre-interview questions, parents and students completed questionnaires adapted from *AIR Self-Determination Scales* (Wolman et al., 1994). The parents completed the AIR Self-Determination Scale: Adapted Parent Form, which contained three items (see Appendix D). The students completed the AIR Self-Determination Scale: Adapted Student Form, which contained 18 items (see Appendix E). The questions on both forms targeted the students' current self-determination levels related to their sports. Each question required a response using a 5-point Likert scale, with "1" indicating "never" and "5" indicating "always." When necessary, the PI helped the students as they filled out the questionnaires. For example, the PI read the question and answer choices aloud to Students A and C to accommodate parent requests. Further, the PI only provided the three choices (i.e., Never, Sometimes, and Always) to those students, excluding the choices of "Almost Never" and "Almost Always," which was also to accommodate parent requests. After the parents and students completed the questionnaires, the PI answered additional questions and explained the remaining steps of the study, referring to the study timeline (see Appendix C). The pre-interviews ended upon conclusion of that conversation.

Interviews and observations were conducted over a four-month period. All interviews were recorded with a SONY ICD-BX140 Digital Recorder as well as with an iPhone 8 Plus as a back-up method. The length of each pre-interview ranged from 30 to 45 minutes. The PI and a graduate assistant in the Special Education department at the PI's institution transcribed all interviews. Further, the PI checked all transcriptions for accuracy.

Self-Determination Intervention

After each pre-interview, the PI created an individualized action plan for each student. The purpose of these action plans was to provide a sports-related self-determination goal for each student. Further, the action plans assisted the PI in providing systematic coaching feedback to the student. As previously discussed, research underscores the value of using individualized action plans in combination with coaching (Grant, 2003; Neuman & Cunningham, 2009). An action plan is a vital component of goal-directed self-regulation, making it ideal for implementation within a self-determination intervention. Additionally, action plans can effectively guide individuals towards increased self-determination (Devlin, 2008; Olney & Emery-Flores, 2017; Price, Wolensky, & Mulligan, 2002). A good action plan should list all steps of a task, clearly outline who is doing what in the task, and reflect the current task while also anticipating potential barriers and opportunities (Fawcett et al., 1992). The PI created an action plan template that incorporated all of those criteria (see Appendix F).

After creating the action plan template, the PI individualized the template for each student based upon the student's goals as expressed in pre-interviews. When outlining action plan steps, the PI sought to use self-determination skills to facilitate the development of students' sports-related goals, thus intersecting self-determination and recreational sports. Prior to each initial observation, the PI shared these action plans with the parents, encouraging the parents to discuss the action plans with the students. Further, the PI shared these action plans with all coaches working with the students to increase the chance that the student would receive support in pursuing the goals.

When scheduling the observations, the PI contacted both the parents and the coaches to confirm observation dates and times. The PI conducted three observations per student at the

aforementioned sports-related locations. The PI arrived at each observation approximately 15 minutes early. For the observations that occurred at the local high school, the PI presented her college student identification card. The PI greeted the students but minimally engaged with the students during the observation in order to avoid interfering with student participation during data collection. During each observation, the PI used the AIR Self-Determination Scale: Adapted Educator Form, which had 11 items (see Appendix G), to gather data related to the students' self-determination levels within their sports. To develop the AIR Self-Determination Scale: Adapted Educator Form, the PI adapted the *AIR Self-Determination Scale: Educator Form* (Wolman et al., 1994) just as she adapted the parent and student forms.

Within 12 hours of each observation, the PI provided coaching feedback to each student based on their individualized action plans. For example, after the initial observation of Student A, the PI gave this feedback to the parent:

When playing the game, [Student A] was great at receiving Coach's feedback when he said stuff like "Make sure you shoot higher" or "Be sure to aim for the white square on the backboard." Moving forward, it would be great to continue to encourage him to ask his coach for help and feedback. I shared the action plan with [teacher's name], so she will discuss it with him some too. I plan to observe him again within the next couple of weeks.

After the first observations of Student A and Student C, the PI provided feedback via text message to the parents, who then shared that feedback with the students. After debriefing with co-advisers, the PI decided to provide feedback via video instead of text message. For the rest of the project, the PI recorded herself giving feedback and shared that video feedback with the parents, who then shared the videos with the students.

Immediately following each pre- and post-interview, the PI recorded a brief reflection

that captured initial impressions, emerging themes, and reminders to follow up. Further, to ensure that the process was systematic and trustworthy, the PI met with her advisors as often as once a week to discuss the research progression. As another measure of fidelity, peer debriefings between the PI and her advisors occurred after each initial meeting and throughout the study. Further, the researcher shared the transcriptions with all participants to allow for member-checking. Figure 1 displays the concurrent mixed methods research procedures used in the study, detailing the qualitative and quantitative data collections.

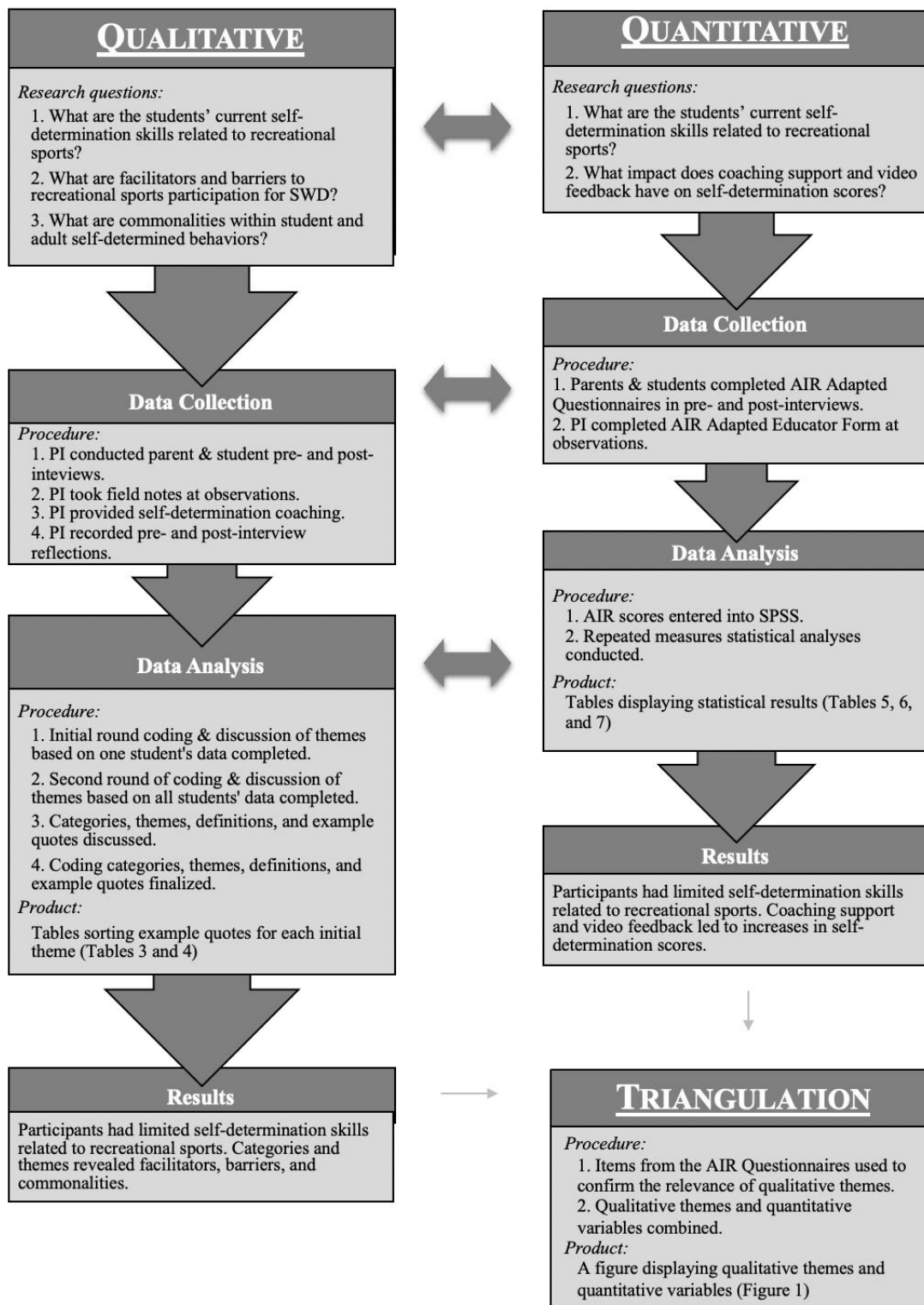
Data Analysis Procedures

This study used a mixed methods research design, collecting both qualitative and quantitative data. A signature benefit of a mixed methods design is that it allows researchers to achieve the objectives of both qualitative research (i.e., studying phenomena) and quantitative research (i.e., studying statistical regularities) (Bentahar & Cameron, 2015). A concurrent triangulation methodology was most appropriate for data analysis. In concurrent triangulation designs, qualitative and quantitative data are collected and analyzed independently, in a parallel fashion (Jang, McDougall, Pollon, Herbert, & Russell, 2008). Another fundamental characteristic of concurrent triangulation is that the findings from qualitative data are compared to quantitative data (Combs & Onwuegbuzie, 2010; Jang et al., 2008; Onwuegbuzie & Combs, 2011). The PI implemented all of these strategies in collecting and analyzing data (see Figure 1).

The qualitative data were analyzed using the constant comparative analysis of interview transcripts, the PI's observation notes, and coaching feedback transcripts. First, the PI independently reviewed all qualitative data sources for Student A, identifying descriptive codes summarizing the primary topics of the salient selection (Saldaña, 2015). The PI and her co-advisers then met to discuss and compare the descriptive codes with example quotes. Second, the

Figure 1

Self-Determination and Recreational Sports: Concurrent Mixed Methods Procedures



PI and her co-advisers independently reviewed the remaining data sources for descriptive codes and then met to discuss and compare the initial descriptive codes (Lombard, Snyder-Duch, & Bracken, 2002). Table 3 displays the initial coding cycle with example quotes. After agreeing on these initial codes, the second coding cycle began. In this cycle, the PI and her co-advisers used focused coding to develop salient categories requiring them to make “decisions about which initial codes made the most analytic sense” (Charmaz, 2006). Table 4 depicts results from the second coding cycle where codes were sorted into three salient categories (i.e., adult behavior, student behavior, and self-determination coaching support) and eleven related themes.

The PI entered the quantitative data from the AIR Questionnaires into Statistical Package for Social Sciences (SPSS) software. The PI and her co-advisers conducted a descriptive analysis and a repeated measures within-subject statistical test, and then they compared the qualitative and quantitative results. Quantitative results confirmed the relevance of the qualitative themes. Figure 1 shows the procedures, products, and results gathered across qualitative and quantitative data collections and analyses.

Table 3

Initial Coding Cycle

Initial Themes	Example Quotes
Communication Goals	PI: "...and also trying to communicate with your coach a little more, which was one of your goals we created. You can start by asking [your coach], 'What do you think I should work on?'"
Advocate & Mediate	PI: "I'd be happy to communicate with [coach's name] about designating one day a week where [student's name] can get some extra practice with him."
Feedback	PI: "I noticed your three-point shots looked really good. It looks like you've been working on that. You made a lot of them."
Skill Goal	PI: "Do you know what you can do to get better?" S: "Yes." PI: "What do you think?" S: "Dribble."
Equal Time	PI: "I know a couple of weeks ago when we first met, our goal was for you to talk to your coach, and that was a little hard because he wasn't there last week, and he also wasn't there this week. He went outside with the other [general education] students."
Sport Enthusiasm	PI: "My initial thoughts post-study with [student's name] are that he is very passionate about basketball."
Struggle to Make Goals	P: "See, I don't think [student's name] really thinks about a plan. I know on a daily basis he has a routine, and he has tasks he wants to do."
Struggle to Ask for Help	P: "It's hard for him to ask for help."
Seeking Independence	P: "He tries to be as independent as he can. So I guess that's his goal."
Limited Self-Confidence	P: "She's just shy and scared of doing it, until somebody [tells] her to do it."
Receiving Feedback	PI: "...you weren't jumping as high as you could have, and then your coach said something to you about it. Then you did a full air split, and it was awesome."
Generalizing Goal-Setting in Non-Familiar Routines	P: "I know in life skills, he's working on becoming more independent, money, making his way through the obstacles of things that he has to do."
Presumed Competence: Inclusion	PI: "[Student's name] was a very valued and respected team member."
Self-Efficacy	P: "I mean, obviously by watching him I know what he's good at and what he likes. But he won't say, 'I like basketball' or 'I'm good at shooting.' But I can ask him that and he will answer me."

Note. PI = principal investigator; P = parent; S = student

Table 4

Second Coding Cycle

Theme	Definition	*Example Quotes
A. Adult Behavior		
Presumed competence	Adults made assumptions about students' various capacity/aptitude levels regarding self-determination and/or athletic skills.	<p>P: "I understand why they had to do it, where they had to be close to him [to] throw the ball for him to hit. I understand that. But I believe he could have [done an] awesome job hitting a long way."</p> <p><i>-In the quote above, a parent wished her son could have hit off of a real pitcher like the other players instead of hitting off of adjusted coach pitching.</i></p>
Inclusion/equal time	Adults exhibited knowledge (or lack thereof) regarding appropriate inclusion/equal time practices within academic and/or recreational environments.	<p>PI: "I know a couple of weeks ago when we first met, our goal was for you to talk to your coach, and that was a little hard because he wasn't there last week, and he also wasn't there this week. He went outside with the other [general education] students."</p>
B. Student Behavior		
Self-determination skills/awareness	Students exhibited skills/awareness (or lack thereof) regarding self-determination constructs.	<p>P: "See, I don't think [student's name] really thinks about a plan."</p>
Goal-setting	Students engaged in identifying and developing recreational sports skills.	<p>PI: "How many points do you want to shoot?"</p> <p>S: "13."</p>
Communication	Students pursued increased communication within recreational sports environments.	<p>PI: "Today, we primarily worked on his communicating with his coach."</p>
Enthusiasm	Students displayed excitement/eagerness regarding participation in recreational sports.	<p>PI: "Is basketball your favorite sport?"</p> <p>S: "Yeah."</p>
Self-efficacy	Students demonstrated self-confidence in their abilities to accomplish tasks.	<p>P: "When it comes to the things that he needs to accomplish, those tasks throughout the course of the day, he knows he's good at those, and he knows he can accomplish those."</p>

Receiving feedback	Students exhibited the capacity to receive feedback from the PI and/or the coach.	PI: “When your coach was trying to help you hit the ball, you did what he said to do. They were trying to make sure you touched each base after the first time you didn’t touch every base, and the second time you did. I thought that was awesome that you knew how to make that change.”
Generalizing self-determination skills	Students used self-determination skills to enhance/improve routines and activities outside of recreational sports involvement.	PI: “The results of that interview said that [student’s name] was working not only on our goals but also she was really taking the encouragement of [trying to] communicate better with people and not be so shy and try to challenge herself there.”

C. Self-determination Coaching Support

Advocacy & mediation	Teachers, coaches, and/or parents collaborated with one another to further support participants in communication and problem-solving skills within recreational sport involvement.	<p>PI: “What did you do to shoot ten baskets?”</p> <p>S: “Ten.”</p> <p>PI: “But how did you do that?”</p> <p>S: “[Teacher’s name]”</p> <p>PI: “[Teacher’s name] helped you?”</p> <p>S: “Yes, yes ma’am.”</p> <p>PI: “He did help you when I was there. He’s not even your coach and he helped you.”</p>
Explicit & general feedback	Throughout the entirety of the project, the PI provided both explicit (i.e., specific) and general (i.e., broad) feedback to the participants.	<p><i>General</i></p> <p>PI: “I noticed your three-point shots looked really good. It looks like you’ve been working on that. You made a lot of them.”</p> <p><i>Explicit</i></p> <p>PI: “...and also trying to communicate with your coach a little more, which was one of your goals we created. You can start by asking [your coach], ‘What do you think I should work on?’”</p>

Note. PI = principal investigator; P = parent; S = student

Chapter 4: Results

A concurrent mixed methods analysis was used to collect and analyze qualitative and quantitative data. Qualitative data sources included transcribed interviews and coaching feedback, along with the PI's observation notes. The quantitative data sources were the three adapted AIR Self-Determination Scales that the PI and the participants completed. The PI analyzed all data to explore (a) the recreational sports experiences of SWD, including current self-determination levels as well as facilitators and barriers to recreational sports involvement and (b) the impact of coaching support and video feedback on self-determination scores. In the following paragraphs, findings from first the qualitative analysis and then the quantitative analysis are presented in an attempt to answer the research questions.

Qualitative Results

As previously mentioned, the PI sought to answer three qualitative questions within this study (see Figure 1). Coded interviews, observation notes, and coaching feedback transcripts were the primary qualitative data sources. Qualitative data revealed three categories with eleven themes, as displayed by Table 4. In the following paragraphs, these categories and themes are discussed in relation to the three research questions.

Current self-determination skills related to recreational sports. Self-determination skills/awareness was one theme found within the *student behavior* category. Data gathered in interviews and observations revealed that students and parents reported limited self-determination skills at the beginning of the study. For example, the PI inquired about the students' self-determination skills within their recreational sports in each pre-interview. In response, one parent stated that her daughter needed to work on making goals. Another parent advised, "See, I don't think [student's name] really thinks about a plan." A different parent

commented, “It’s hard for him to ask for help.” As demonstrated in these quotes, students and parents displayed limited self-determination skills/awareness related to recreational sports.

Facilitators and barriers to recreational sports participation. Two categories with two themes each addressed this research question. The first category was *adult behavior* including themes of (a) presumed competence and (b) inclusion/equal time. The second category was *self-determination coaching support* including themes of (a) advocacy and mediation and (b) explicit and general feedback. Definitions and example quotes are provided in Table 4.

Facilitators to recreational sports participation. As revealed by participant responses, specific *adult behaviors* and *self-determination coaching supports* were considered to be facilitators to recreational sports participation. The theme of inclusion/equal time highlighted instances of *adult behavior* acting as a facilitator to recreational sports participation. An inclusion/equal time example occurred during a practice observation, as the PI noted:

There were a few instances in which [student’s name] was not involved in practice for around 5-10 minutes, but then [coach’s name] gave him a task (e.g., passing balls to the players), and he was engaged again.

Another example of *adult behavior* facilitating the student’s inclusion was exhibited by a parent’s statement: “...and really from what I understand, you know, [the coaches] are really including him a lot, and [he is] not just holding a water bottle.” Further, several parent quotes captured the value of inclusion/equal time in recreational sports for the participants:

- “[Student’s name] was a very valued and respected member of their team.”
- “And I've seen him progress with basketball. So when he first started, you know, he couldn't make any goals.... And now he's pretty good.”
- “He accomplished one of his goals, playing baseball.... He wish[es] he [could] play

baseball all the time since he got that opportunity. [It's important to give] kids with disabilities a chance to really shine instead of putting them in the back."

As demonstrated by these quotes, the SWD experienced a myriad of benefits from their inclusion in recreational sports, which was often facilitated by adult behaviors.

Self-determination coaching support also facilitated student participation in recreational sports. For example, coaching support where adults (i.e., teachers, coaches, and/or parents) collaborated is exemplified by the PI's statement, "I shared the action plan with [teacher's name], so she will discuss it with him some too." Another facilitator was the explicit coaching feedback given by the PI, such as "...and also trying to communicate with your coach a little more, which was one of your goals we created. You can start by asking [your coach], 'What do you think I should work on?'"

Further, *self-determination coaching support* contributed to one student's problem-solving in pursuing self-determination goals. The PI worked with Student A to problem-solve when his PE coach was absent during two observations. After realizing that the coach was absent, the PI and the student collaborated to solve the problem of the coach's absence, particularly because the student's goal was to increase communication with his coach. The student identified that another teacher was available to help him with basketball in the place of his coach. The following quote is from the post-interview:

PI: "What did you do to shoot ten baskets?"

Student A: "Ten."

PI: "But how did you do that?"

Student A: "[Teacher's name]."

PI: "[Teacher's name] helped you?"

Student A: “Yes, yes ma’am.”

PI: “He did help you when I was there. He’s not even your coach and he helped you.”

As exemplified by this quote, Student A used problem-solving to obtain help from another teacher when his PE coach was absent to continue to pursue his goal of shooting ten baskets. These quotes attest to the role of *self-determination coaching support* as a facilitator to the recreational sports participation of SWD.

Barriers to recreational sports participation. While certain instances of *adult behavior* and *self-determination coaching support* served as facilitators, other instances served as barriers to recreational sports participation. For example, one parent said, “I understand why they had to do it, where they had to be close to him [to] throw the ball for him to hit.... But I believe he could have [done an] awesome job hitting a long way.” The PI further explained this quote by noting that the “parent wished her son could have hit off of a real pitcher like other players instead of hitting off of adjusted coach pitching.” These quotes display a barrier within the theme of presumed competence (see definition in Table 4) as the coach assumed that the student would not be able to hit off of a real pitcher. Similarly, the theme of inclusion/equal time presents *adult behavior* as a barrier for the student having ample opportunities to practice direct communication with the coach. An example is specifically depicted in the following video feedback transcription:

I know a couple of weeks ago when we first met, our goal was for you to talk to your coach, and that was a little hard because he wasn't there last week, and he also wasn't there this week. He went outside with the other [general education] students.

This quote shows *adult behavior* acting as a barrier to recreational sports involvement, as the coach’s absence during sports activities impacted the student’s participation.

Commonalities within student and adult self-determined behaviors. The category of *student behavior* contained seven themes that suggested commonalities within student self-determined behaviors: self-determination skills/awareness, goal-setting, communication, enthusiasm, self-efficacy, receiving feedback, and generalizing self-determination skills. Table 4 shows definitions and example quotes of all themes within the *student behavior* category. An example of the *student behavior* of goal-setting is provided in the following quote:

PI: “Do you know what you can do to get better?”

Student C: “Yes.”

PI: “What do you think?”

Student C: “Dribble.”

The discussion in this quote directed the student’s skill goal of improving his dribbling. Another example of goal-setting was evident in the pre-interview when the PI asked, “How many points do you want to shoot?” and the student responded, “13.”

Additionally, the communication theme included multiple examples that either expressed a need for or highlighted actions related to communication and self-advocacy. Specifically, one parent stated, “I [see] how she need[s] to work on expressing herself more.” Further, the PI reported to another parent, “Today, we primarily worked on his communicating with his coach.” Self-efficacy (see definition in Table 4) was another common *student behavior* and was depicted in the following parent quote: “When it comes to the things that he needs to accomplish, those tasks throughout the course of the day, he knows he’s good at those, and he knows he can accomplish those.” Receiving feedback, another common *student behavior*, was supported by a quote from a video feedback transcription:

When your coach was trying to help you hit the ball, you did what he said to do. They

were trying to make sure you touched each base after the first time you didn't touch every base, and the second time you did. I thought that was awesome that you knew how to make that change.

Finally, the PI stated in field notes that one student was “really taking the encouragement of [trying to] to communicate better with people and not be so shy and try to challenge herself there.” This quotation depicts the theme of students generalizing self-determination skills.

Quantitative Results

The PI sought to answer two quantitative questions within this study (see Figure 1), and data from the three adapted AIR Self-Determination Scales (i.e., parent, student, and educator) were analyzed to answer those questions. The following paragraphs present quantitative results from parent, student, and educator forms.

AIR self-determination scale: Adapted parent form. A one-way repeated measures analysis of variance (ANOVA) was conducted to evaluate the null hypothesis that change would occur in students' self-determination skills using the three-item Adapted Parent Form. From the first interview, before the first coaching feedback was provided, to the last interview ($N = 2$), the results of the ANOVA indicated no significant time effect, Wilk's Lambda = .85, $F(1, 3) = .5$, $p = .53$, $\eta^2 = .143$. During the pre-interviews, parents ($N = 4$) evaluated their students' current self-determination levels at a mean score of 10 (standard deviation [SD] = 1.15) on the AIR Self-Determination Scale: Adapted Parent Form. In the post-interviews, parents evaluated their students' self-determination levels at a mean score of 11 (SD = 2.58) using the same scale.

Table 5 displays a comparison of the average pre- and post-scores for each parent. There was not a statistically significant increase in total scores from pre-test to post-test. Figure 2 shows that Parents A and D reported positive changes in their child's self-determination scores from pre-interview to post-interview. Parents B and C reported that their children remained almost the same with a slight decrease from pre-interview to post-interview.

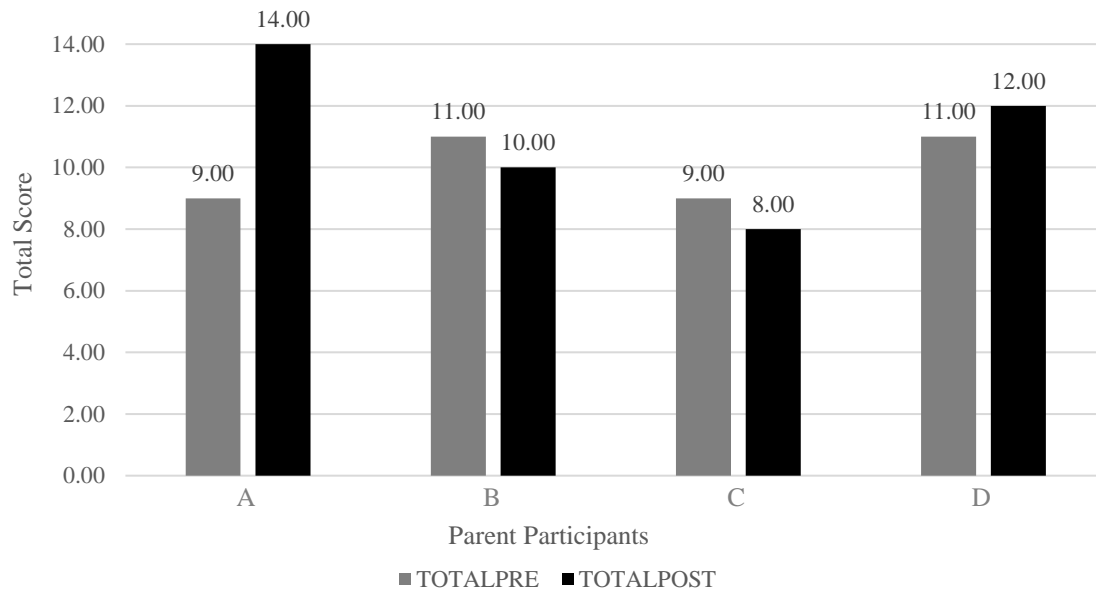
Table 5

<i>Mean Scores on Adapted Parent Forms</i>					
	<u>Pre-test Score</u>		<u>Post-test Score</u>		<u>Statistical Significance</u>
	Mean	SD	Mean	SD	
AIR Total Score	10	1.15	11	2.58	.53
AIR Item: Checks Progress When Completing Plans	2.25	.957	3	1.41	.058***

Note. SD = Standard Deviation; *** = Approaching Statistical Significance

Figure 2

Total Pre- and Post-Scores on Adapted Parent Forms



Note. Parent participant code names correspond with student participant code names (e.g., Parent A is the parent of Student A, etc.)

An ANOVA revealed that one item on the parent questionnaire was approaching statistical significance, Wilk's Lambda = .25, $F(1, 3) = 9.0$, $p = .058$, $n_3 = .75$. This item was, "My child checks his or her own progress when completing his or her plan. (S)he asks others what they think of his or her progress." On the pre-test, the parents scored this item at a mean score of 2.25 (SD = .957). On the post-test, the parents scored this item a mean score of 3 (SD = 1.41).

Table 5 depicts the analysis of the item approaching significance.

AIR self-determination scale: Adapted student form. An ANOVA was conducted to evaluate the null hypothesis that change would occur in students' self-determination skills using the 18-item AIR Self-Determination Scale: Adapted Student Form. From the first interview, before the first coaching feedback was provided, to the last interview ($N = 2$), the results of the ANOVA indicated no significant time effect, Wilk's Lambda = .44, $F(1, 3) = 3.692$, $p = .15$, $\eta^2 = .552$. During the pre-interviews, the student participants ($N = 4$) rated their self-determination levels at a mean score of 58.75 ($SD = 4.92$). During the post-interviews, the student participants scored their self-determination levels at a mean score of 62.75 ($SD = 7.88$). There was not a statistically significant change in scores on the student forms.

Students A, B, and C self-reported positive change in their own self-determination scores from pre- to post-interview (see

). Student D self-reported that his self-determination skills remained almost the same with a slight decrease from pre- to post-interview. The ANOVA revealed one item from the student form was approaching statistical significance, Wilk's Lambda = .30, $F(1, 3) = 6.81$, $p = .08$, $\eta^2 = .694$. This item was, "In my sport, I have learned how to make plans to meet my goals and to feel good about them." On the pre-test, the students scored this item at a mean score of 2.5 ($SD = .577$). On the post-test, the students scored this item at a mean score of 3.75 ($SD = .50$).

Figure 3

Total Pre- and Post-Scores on Adapted Student Forms

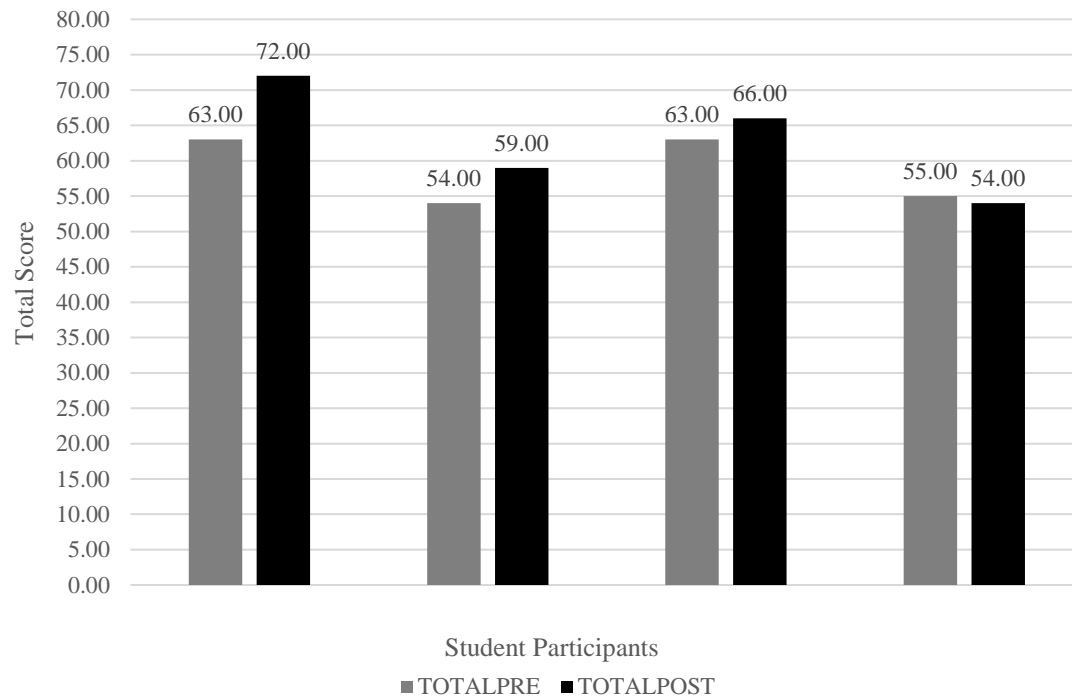


Table 6 depicts the analysis of the item approaching significance.

Figure 3

Total Pre- and Post-Scores on Adapted Student Forms

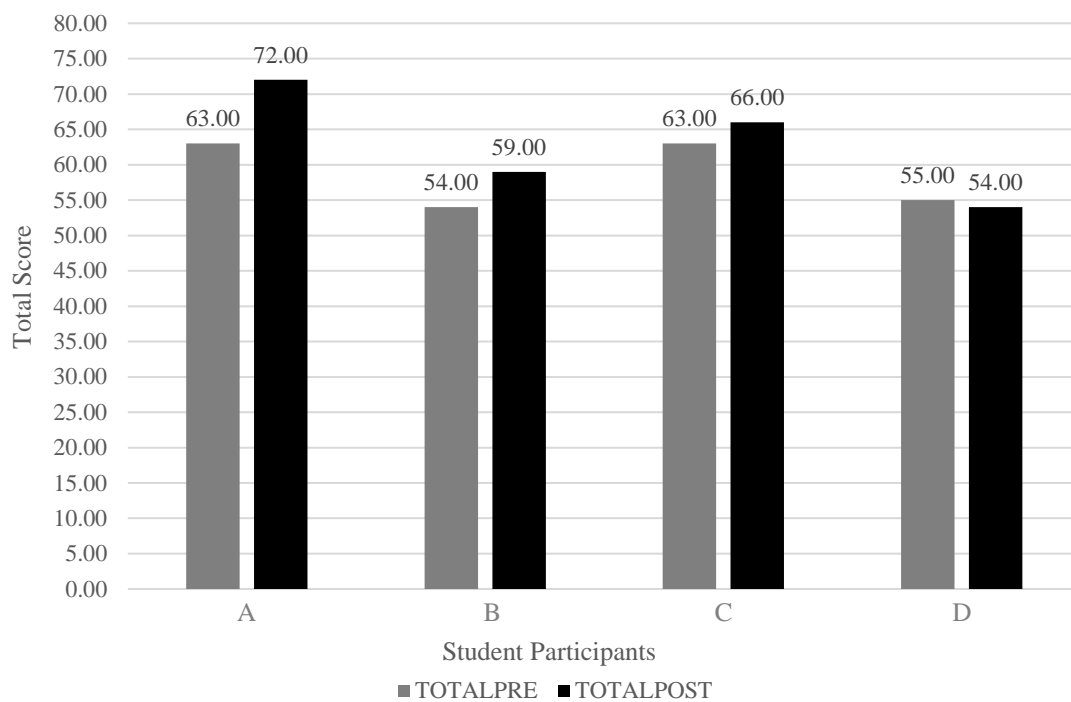


Table 6

Mean Scores on Adapted Student Forms

	<u>Pre-test Score</u>		<u>Post-test Score</u>		<u>Statistical Significance</u>
	Mean	SD	Mean	SD	
AIR Total Score	58.75	4.92	62.75	7.88	.15
AIR Item: In Sports Make Plans – Meet Goals	2.5	.577	3.75	.50	.08***

Note: SD = Standard Deviation; *** = Approaching Statistical Significance

AIR self-determination scale: Adapted educator form. The ANOVA was conducted to evaluate the null hypothesis that change would occur in students' self-determination skills using the 11-item AIR Self-Determination Scale: Adapted Educator Form from observation one, before the first coaching feedback was provided, to the last observation ($N = 3$). The results of the ANOVA indicated a significant time effect, Wilk's Lambda = .11, $F(1, 3) = 23.43$, $p < .05$, $\eta^2 = .887$. The student participants ($N = 4$) had a mean score of 29.75 ($SD = 2.5$) on the AIR Educator Forms prior to the first coaching intervention. At the second observation, students had a mean score of 35.25 ($SD = 2.21$). After the last observation, students had a mean score of 37.5 ($SD = 2.8$) on the AIR Self-Determination Scale: Adapted Educator Form. The observation results from the educator forms did not reveal a statistically significant change ($p < .05$) between the first and second observation. However, a statistically significant result occurred from observation one to observation three, $p = .017$ (see Table 7 to see the change in observation scores for all students).

Figure 4 shows that all students showed improvement in self-determination scores from observation one to observation three. The results from observation one to observation three suggest using an action plan and coaching feedback increased the students' total observation scores. Although there was not a statistically significant change in scores on the Parent and Student forms, there was a statistically significant increase in the AIR Self-Determination Scale: Adapted Educator Form scores. The PI confirmed findings from qualitative and quantitative analyses based on triangulation of the data, as displayed in Figure 1. To examine relationships between qualitative and quantitative data, see Figure 5.

Table 7

Mean Scores on Adapted Educator Forms

	<u>Observation 1</u>		<u>Observation 3</u>		<u>Statistical Significance</u>
	Mean	SD	Mean	SD	
AIR Total Score	29.75	2.55	37.5	2.88	.017*

Note: SD = Standard Deviation; *p < .05 = Statistical Significance

Figure 4

Total Scores on Adapted Educator Forms

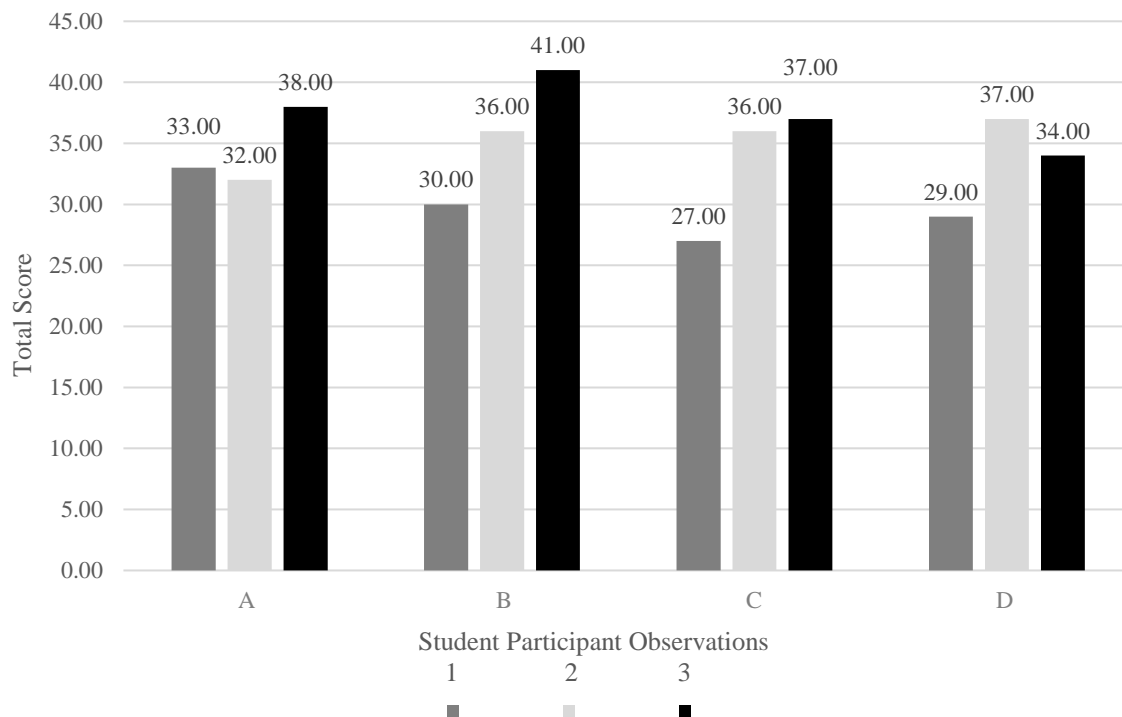
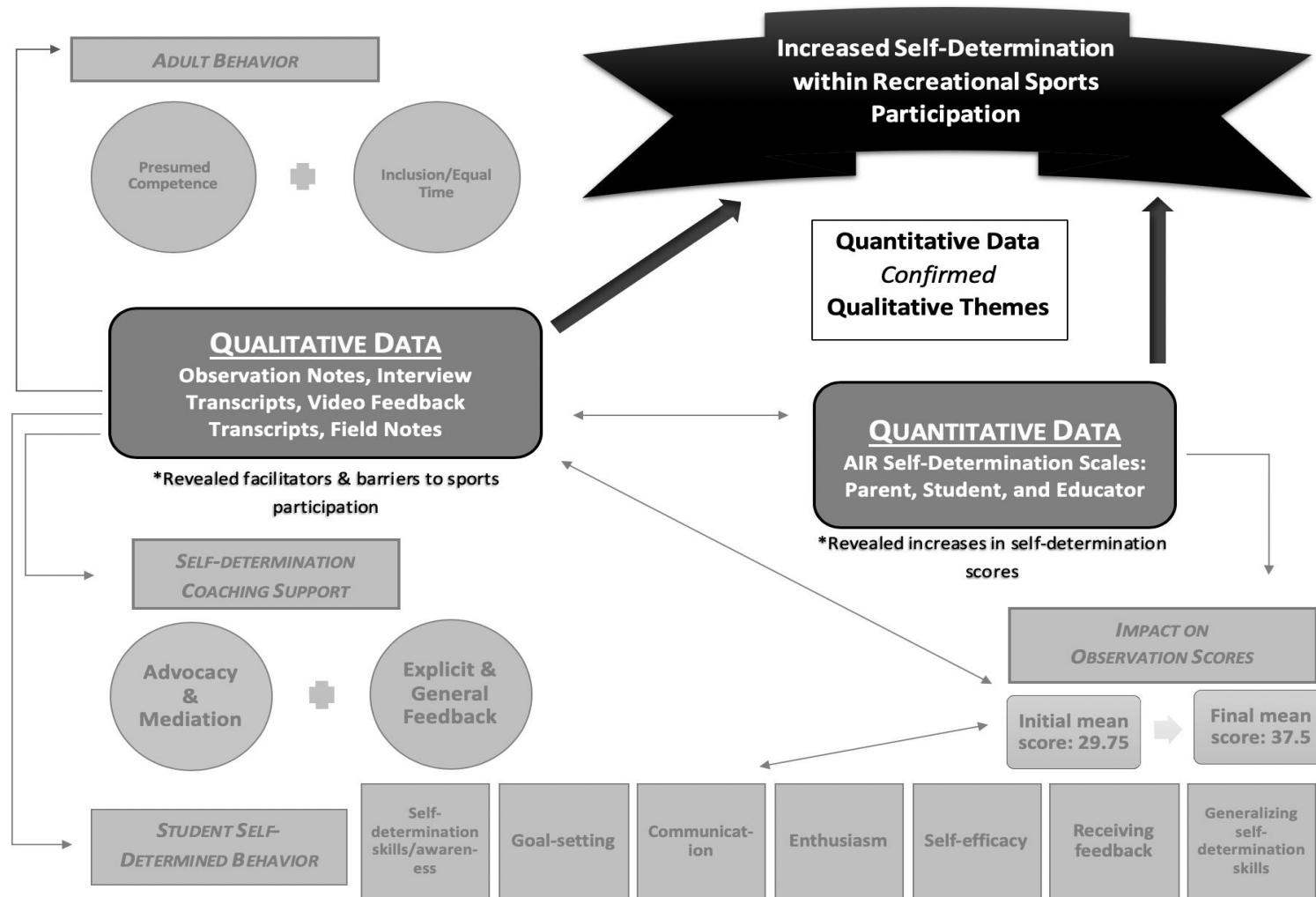


Figure 5

Relationships between Qualitative Themes and Quantitative Variables



Chapter 5: Discussion

The purpose of this research project was to explore the involvement of SWD in recreational sports, specifically examining the role of self-determination in recreational sports participation. Given the increasing emphasis on promoting both self-determination skills and recreational sports involvement for SWD because of their considerable benefits, combined with a literature review revealing a lack of research in these fields, the PI sought to (a) understand the current levels of self-determination within recreational sports while investigating the facilitators and barriers to recreational sports involvement and (b) explore the impact of self-determination coaching on students' self-determination scores. At the onset of the study, the PI hypothesized that the participants would have limited experience with self-determination within their recreational sports and that coaching would help increase the students' self-determination. The results of the concurrent mixed methods analysis support this hypothesis.

The study's results suggest that individualized action plans combined with post-observation video coaching feedback lead to increases in students' self-determination. This finding advances previous research reporting SWD experienced benefits and improvements in self-determination when provided with individualized coaching (Van Hoecke et al., 2014). Further, the self-determination intervention structure in this study involved individualized action plans combined with coaching feedback. Similar to previous research, these results suggest action plans that individualize coaching feedback may increase goal-directed self-regulation (Grant, 2003; Neuman & Cunningham, 2009). Additionally, the current study was intentionally structured to provide opportunities for students to directly participate in developing self-determination goals. This design was guided by previous research highlighting the importance of student involvement in developing self-determination (Carter et al., 2010; Kern et al., 2001;

Wehmeyer et al., 2012; Zimmerman et al., 1996). Thus, this study's results expand research suggesting student involvement is a vital component of developing and increasing self-determination skills.

Further, these findings confirm previous research reporting an association between problem-solving and increased self-determination skills (Agran et al., 2002; Wehmeyer et al., 2012; Wehmeyer, Palmer, et al., 2000). Student A displayed evidence of problem-solving skills when he sought assistance from another teacher in response to his PE coach's absence. This solution helped him remain focused on his self-selected goal of shooting ten baskets, further supporting previous findings (Agran et al., 2002; Wehmeyer et al., 2012; Wehmeyer, Palmer, et al., 2000).

A qualitative theme across the interviews was that students generalized self-determination skills while pursuing increased independence, as driven by parents' desires for autonomy for their students. The literature review conducted as a part of this study revealed that self-determination and recreational sports both have links to increased independence (Caldwell, 2010; Buchanan et al., 2017; Callahan et al., 2011; Martorell et al., 2008; Wehmeyer & Palmer, 2003). As such, adults should emphasize self-determination in recreational sports environments to facilitate improved self-determination skills in SWD. In essence, it is important to view how one can infuse self-determined learning and principles into recreational sports. This study's findings expand previous research suggesting recreational sports involvement can lead to increased independence (Buchanan et al., 2017). Further, the *self-determination coaching support* category confirms previous research attesting to the role that coaching plays in goal-setting and attainment (Grant, 2003). Throughout this study, the PI provided coaching feedback to students, acting as an advocate and mediator while providing both general and explicit

coaching feedback. In these settings, the PI worked to facilitate the progress and/or achievement of students' individualized goals. This theme aligns with previous research highlighting the coach's role as a facilitator within goal-directed self-regulation (Grant, 2003).

Another theme revealed was inclusion/equal time within the *adult behavior* category. This theme highlights a larger matter that transcends this topic: the overarching issue of individuals with disabilities being excluded from or receiving unequal and/or unfair treatment within activities. The inclusion of individuals with disabilities has increased substantially in recent years, largely due IDEA legislation combined with research underscoring inclusion benefits. Despite this growth, many individuals with disabilities are prevented from full immersion in society alongside their nondisabled peers. During this study, exclusion occurred as one student's coach was absent in two of the three observations, replicating the marginalization individuals with disabilities often face. However, the study also provided inclusion examples that highlight the indisputable value of including individuals with disabilities exemplified by the quotes presented previously. As demonstrated by those quotes, the students who participated in this study experienced significant benefits from their inclusion in recreational sports. This finding is central to supporting inclusion for all individuals with disabilities, encouraging teachers, coaches, and parents to advocate for and implement such inclusion.

Limitations

Although this study suggests key relationships among constructs of self-determination and recreational sports, the findings must be considered in light of their potential limitations. One limitation is the small sample size of four parent/student participant pairs. The sample size was appropriate for the nature of this particular research study, as it allowed the PI to review participant information, conduct observations and interviews, and analyze data within the study's

time limitations. However, the small sample size lends itself to potential disadvantages, such as a larger standard of error and an imprecise estimate of the study's effect on the general population.

Another limitation is that the PI was only able to conduct three rounds of observation and coaching per student. Although the results suggest that three rounds were effective at increasing students' self-determination levels, the impact could have been greater had there been more time to conduct additional observations and provide more coaching. Further, the design of the study was to implement all three AIR scales (i.e., Parent, Educator, and Student), meeting previous calls for research to do just that (Shogren et al., 2008). In this study, the educator form was adapted to be used as an observation form. The PI conducted all observations, striving to do so with impartiality. However, the potential for observer bias remains, as typical for all studies with similar structures.

Implications for Practice

The primary purpose of the current study was to explore intersections of self-determination and recreational sports for SWD. This problem is of particular significance due to the growing research reporting benefits of self-determination and recreational sports for SWD. The results of the study can inform practice by providing an exemplar for increasing collaboration between teachers and coaches of SWD, which in turn further supports those adolescent students. Additionally, the findings urge teachers to systematically reinforce self-determination goals for SWD who participate in recreational sports, particularly encouraging the use of coaching and individualized action plans. Although the present study did not specifically explore teachers' roles in developing self-determination, teachers have the opportunity to interact with students on a daily basis. Encouraging teachers to reinforce self-determination concepts and goals can increase the likelihood of self-determination skill development.

This study highlights the benefits of including SWD in environments with their nondisabled peers. This finding can impact practice by emphasizing the necessity of inclusion in educational settings. Teachers and practitioners must include advocacy in their practices in order to ensure SWD are included to the maximum extent possible in the general education setting, aligning with IDEA's concept of a least restrictive environment. Although this concept is mandated by the federal government, some schools, educators, and coaches still struggle to effectively include SWD in general education settings. This finding reminds all educators and related service providers to include SWD with their nondisabled peers as often as possible.

Future Research

This study represents one of the first attempts at exploring the intersections of self-determination and recreational sports for individuals with disabilities, as the in-depth literature review conducted at the onset of this project found limited research exploring this topic. As such, this study opens avenues for future research regarding such an intersection. Exploring the crossroads of self-determination and recreational sports has the potential to provide novel and valuable insight, which could further enhance the lives of individuals with disabilities. Specifically, future research could replicate the present study on a larger scale, involving more participants across a longer time span to provide additional data and enhance the generalizability of the research findings. This research will supplement the lack of literature regarding self-determination and recreational sports.

In addition, this study attempted to explore the coaches' roles in developing self-determination skills for SWD. Coaches hold an influential role in encouraging all athletes, both with and without disabilities, to become involved in sports. Coaches provide feedback, criticism, and insight to athletes, and coach involvement can increase athletes' intrinsic motivation and

objective performance (Fransen, Boen, Vansteenkiste, Mertens, & Vande Broek, 2018). As such, coach involvement and support could play an integral role in developing athletes' self-determination skills. The present study attempted to incorporate coach involvement, but coach input was not consistent for all participants. Future research should explore the impact that strategic and consistent interactions with a recreational sports coach can have on students' self-determination goal achievement.

This study revealed another avenue for research in the potential exploration of self-determination across multi-sport athletes. All students in this study participated in at least two different recreational sports. The PI recognized this similarity, noting that it would be interesting to explore whether self-determination skills manifest differently depending on the recreational sport the student plays. Specific questions for future research could include (a) Do SWD have different self-determination skills across various sports? and (b) What causes and/or influences variations in self-determination skills across sports that SWD play? Research surrounding these questions could be particularly influential in guiding self-determination development for SWD.

Finally, future research should develop models that inform avenues for introducing self-determined learning into recreational sports environments. A significant finding from this study was that participants had limited experience with self-determination within recreational sports. As mentioned, previous research highlights the benefits of both self-determination and recreational sports for individuals with disabilities. As such, future research should develop models that identify the proper frequency of coaching feedback, the appropriate number of observations, and the ideal duration of interventions targeting self-determination skills within recreational sports for SWD. These models could guide teachers, parents, coaches, and service providers as they support SWD who participate recreational sports. Ideally, these models could

leading to the infusion of self-determined learning and principles into recreational sports environments, ultimately driving the students' attainment of the many benefits associated with both self-determination skills and recreational sports involvement.

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Appendices

Appendix A: University IRB Approval Letter



INSTITUTIONAL REVIEW BOARD

118 College Drive #5147 | Hattiesburg, MS 39406-0001

Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional.review.board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- ☐ The risks to subjects are minimized.
- ☐ The risks to subjects are reasonable in relation to the anticipated benefits.
- ☐ The selection of subjects is equitable.
- ☐ Informed consent is adequate and appropriately documented.
- ☐ Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- ☐ Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- ☐ Appropriate additional safeguards have been included to protect vulnerable subjects.
- ☐ Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- ☐ If approved, the maximum period of approval is limited to twelve months.
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 18072304

PROJECT TITLE: Understanding Sport Experiences, Self-Determination, and Participation
Intersections for Adolescents with Disabilities

PROJECT TYPE: Honor's Thesis Project

RESEARCHER(S): Samantha Papp

COLLEGE/DIVISION: College of Education and Human Sciences

DEPARTMENT: Special Education

FUNDING AGENCY/SPONSOR: N/A

IRB COMMITTEE ACTION: Expedited Review Approval

PERIOD OF APPROVAL: 08/10/2018 to 08/09/2019

Edward L. Goshorn, Ph.D.

Institutional Review Board

Appendix B: Consent Letter

August 13, 2018

Dear Parent or Legal Guardian,

My name is Samantha Papp, and I am a senior Special Education major at The University of Southern Mississippi in Hattiesburg, Mississippi. I am also a graduate of Oak Grove High School. As a member of the Honors College, I currently am working on my own research study. I am very interested in research on self-determination, recreational sport, and adolescents with disabilities. At this time, I would like to invite you and your son/daughter to participate in my study titled *Understanding Sport Experiences, Self-Determination, and Participation Intersections for Adolescents with Disabilities*.

The purpose of this study is to explore the phenomenon of adolescents with disabilities participating in recreational sports. More specifically, the study will examine the role of self-determination skills in the sports participation experiences of students with disabilities. I seek to recruit five adolescents with disabilities. For the purpose of this study, disability is defined as a student who receives special education services due to any Individuals with Disabilities Education Act (IDEA) category (e.g., Autism, Intellectual Disability, Specific Learning Disability, Other Health Impairment, etc.) To be selected this study, all participants need to (a) be between the ages of 12-18, (b) have a disability or an individualized education plan (IEP), and (c) be actively involved in recreational sports or school sports (e.g., cheerleading, softball, fitness class).

A mixed methods research design will be used to examine the relationship between self-determination and recreational sport participation for adolescents with disabilities. Both interviews and observational data will be collected and analyzed. Along with asking for your adolescent to participate, I will also request your participation as well. Attached to this document is a brief timeline of participation expectations for parents and adolescents.

Participation in this research study is on a voluntary basis, and you may withdraw at any time. Further, information attained from this study will remain coded, secured, and kept confidential. For a more detailed explanation of my study, please review the University's official consent and assent forms attached with this letter.

Also, if you have any questions and/or concerns, please feel free to contact me at your earliest convenience. My cell number (601-466-0075), and my email address is samantha.papp@usm.edu.

Thank you for your time, and I hope to hear from you soon.

Sincerely,

Samantha Papp, Principal Investigator
Honors Student
The University of Southern Mississippi

Appendix C: Study Timeline

GENERAL TIMELINE FOR RESEARCH PARTICIPATION

	RESEARCHER	PARENT	STUDENT
1.	Request permission for participation.	Provide consent for participation.	Provide assent for participation
2.	Call parent and student to schedule initial face-to-face meeting.	Work with researcher to schedule initial meeting.	Work with researcher to schedule initial meeting.
3.	a) Meet with parent and student. b) Provide pre-interview to parent. c) Assist student with pre-interview and with creation of sport-related goal. d) Work with parent and student to schedule first sports observation.	a) Complete pre-interview form. b) Work with researcher to schedule first sports observation. <i>*Interview will be recorded for transcription and future reference.</i>	a) Complete pre-interview form, with assistance from researcher as needed. b) Create sport-related goal with researcher's guidance. c) Work with researcher to schedule first sports observation. <i>*Interview will be recorded for transcription and future reference.</i>
4.	a) Attend sporting event to complete first observation. b) Provide feedback to student; share coaching with parent. c) Revisit and evaluate progress towards sport-related goal. d) Schedule second observation.	a) Receive feedback from researcher. b) Encourage student to implement coaching suggestions. c) Frequently remind student of sport-related goal.	a) Participate in sport as usual. b) Receive feedback from researcher; strive to implement coaching suggestions. c) Along with researcher, revisit and evaluate progress towards sport-related goal.
5.	a) Attend sporting event to complete second observation. b) Provide feedback to student; share coaching with parent. c) Revisit and evaluate progress towards sport-related goal.	a) Receive feedback from researcher. b) Encourage student to implement coaching suggestions. c) Frequently remind student of sport-related goal.	a) Participate in sport as usual. b) Receive feedback from researcher; strive to implement coaching suggestions. c) Along with researcher, revisit and evaluate progress towards sport-related goal.
6.	a) Attend sporting event to complete third observation. b) Provide feedback to student; share coaching with parent. c) Revisit and evaluate progress towards sport-related goal.	a) Receive feedback from researcher. b) Encourage student to implement coaching suggestions. c) Frequently remind student of sport-related goal.	a) Participate in sport as usual. b) Receive feedback from researcher; strive to implement coaching suggestions. c) Along with researcher, revisit and evaluate progress towards sport-related goal.
7.	Contact parent and student to schedule post-interview (either face-to-face or via phone call).	Work with researcher to schedule post-interview.	Work with researcher to schedule post-interview.
8.	Conduct post-interview.	Complete post-interview.	Complete post-interview.
9.	a) Analyze data. b) Study results. c) Complete thesis. d) Share results with parent and student.	Review results.	Review results.

Appendix D: AIR Self-Determination Scale: Adapted Parent Form

AIR SELF-DETERMINATION SCALE

ADAPTED PARENT FORM

[ORIGINAL AIR FORM](#)

PARENT'S NAME _____

STUDENT'S NAME _____

DATE _____

SPORT _____

HOW TO FILL OUT THIS FORM

Please answer these questions about how your child goes about getting what he or she wants or needs. This may occur at his or her sport, or after his or her sport, or it could be related to your child's friends, other family members, or a job or hobby you have.

This is not a test.

There are no right or wrong answers. The questions will help us learn about your child's strengths and areas where your child may need help.

Goal

A **goal is something your child wants to get or achieve**, either now or next week or in the distant future. Your child can have many different kinds of goals. Your child could have a goal that has to do with school (like getting a good grade on a test or graduating from high school). Your child could have a goal that has to do with getting along better with friends or family (like making his mom proud). Your child could have a goal of saving money to buy something (a new iPod or new sneakers), or doing better in sports (getting on the basketball team). Each child's goals are different because each person has different things that they want or need or that they are good at.

Plan

A **plan is the way your child decides to meet his or her goal, or the steps your child needs to take in order to get what (s)he wants or needs**. Like goals, your child can have many different kinds of plans. An example of a plan to meet the goal of getting on the basketball team would be: to get better by shooting more baskets at home after school, to play basketball with friends on the weekend, to listen to the coach when the team practices, and to watch the pros play basketball on TV.

1 AIR SELF-DETERMINATION SCALE, PARENT FORM

*Adapted from the AIR Self-Determination Scale, which was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement H023J200005

Appendix D: AIR Self-Determination Scale: Adapted Parent Form (continued)

HOW TO MARK YOUR ANSWERS

Here is an example of how you should mark your answers.

Example question:

After completing a project, my child checks for errors.

Example answer:

Circle the number of the answer that tells what your child is most like.

Circle **ONLY ONE** number.

1. Never.....My child never checks for errors after completing a project.
2. Almost Never.....My child almost never checks for errors after completing a project.
3. Sometimes.....My child sometimes checks for errors after completing a project.
4. Almost Always.....My child almost always checks for errors after completing a project.
5. Always..... My child always checks for errors after completing a project.

REMEMBER

There are NO right or wrong answers.


This will not affect your child's grades in any way. So please think about each question carefully before you circle your answer.

2 AIR SELF-DETERMINATION SCALE, PARENT FORM

*Adapted from the AIR Self-Determination Scale, which was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement HO23J200005

Appendix D: AIR Self-Determination Scale: Adapted Parent Form (continued)

PRE-INTERVIEW	POST-INTERVIEW
Describe your child's level of understanding what (s)he needs, likes, and is good at.	Describe your child's level of understanding what (s)he needs, likes, and is good at.
Describe your child's ability to make goals.	Describe your child's ability to make goals.
Describe your child's ability to check his or her progress and ask others for feedback when working towards his or her goal.	Describe your child's ability to check his or her progress and ask others for feedback when working towards his or her goal.
Give an example of a goal your child is working on now.	Give an example of a goal your child is working on now.
What is your child doing to reach this goal?	What has your child done to reach this goal?
How is your child doing in reaching this goal?	How is your child doing in reaching this goal?
How can I best guide your child in pursuing this goal?	What feedback do you have for me after I have worked with your child?

Please go on to the next page 

3 *AIR* SELF-DETERMINATION SCALE, **PARENT FORM**


*Adapted from the AIR Self-Determination Scale, which was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement HO23J200005

Appendix D: AIR Self-Determination Scale: Adapted Parent Form (continued)

THINGS MY CHILD DOES

	Never	Almost Never	Sometimes	Almost Always	Always
1. My child knows what (s)he needs, likes, and is good at.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. My child sets his or her own goals to satisfy wants or needs. (S)he thinks about his or her own abilities when setting goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
3. My child checks his or her own progress when completing his or her plan. (S)he asks others what they think of his or her progress.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Things My Child Does: Total Items 1 + 2 + 3 = _____

Please go on to the next page 

4 AIR SELF-DETERMINATION SCALE, PARENT FORM

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Appendix D: AIR Self-Determination Scale: Adapted Parent Form (continued)

ADDITIONAL QUESTIONS

How long has your child been participating in this recreational sport?

Is a sibling/family member participating alongside your child in this recreational sport?

What is your child's disability?

Do you have any additional or pertinent information that you would like to share?

THANK YOU!

5 AIR SELF-DETERMINATION SCALE, PARENT FORM

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Appendix E: AIR Self-Determination Scale: Adapted Student Form

AIR SELF-DETERMINATION SCALE

ADAPTED STUDENT FORM

[ORIGINAL AIR FORM](#)

STUDENT'S NAME _____
DATE _____
SPORT _____
YOUR GRADE _____
YOUR DATE OF BIRTH _____
MONTH DAY YEAR

HOW TO FILL OUT THIS FORM

Please answer these questions about how you go about getting what you want or need. This may occur at school, or your sport, or it could be related to your friends, your family, or a job or hobby you have.

This is not a test.

There are no right or wrong answers. The questions will help you learn about what you do well and where you may need help.

Goal.

You may not be sure what some of the words in the questions mean. For example, the word **goal** is used a lot. A **goal is something you want to get or achieve**, either now or next week or in the distant future, like when you are an adult. You can have many different kinds of goals. You could have a goal that has to do with school (like getting a good grade on a test or graduating from high school). You could have a goal of saving money to buy something (a new iPod or new sneakers), or doing better in sports (getting on the basketball team). Each person's goals are different because each person has different things that they want or need or that they are good at.

Plan

Another word that is used in some of the questions is **plan**. A **plan is the way you decide to meet your goal, or the steps you need to take in order to get what you want or need**. Like goals, you can have many different kinds of plans. An example of a plan to meet the goal of getting on the basketball team would be: to get better by shooting more baskets at home after school, to play basketball with friends on the weekend, to listen to the coach when the team practices, and to watch the pros play basketball on TV.

1 AIR SELF-DETERMINATION SCALE, STUDENT FORM

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Appendix E: AIR Self-Determination Scale: Adapted Student Form (continued)

HOW TO MARK YOUR ANSWERS

Here is an example of how you should mark your answers.

Example question:

I check for errors after completing a project.

Example answer:

Circle the number of the answer which tells what you are most like:

Circle **ONLY ONE** number.

1. **Never**.....student **never** checks for errors.
2. **Almost Never**.....student **almost never** checks for errors.
3. **Sometimes**.....student **sometimes** checks for errors.
4. **Almost Always**.....student **almost always** checks for errors.
5. **Always**.....student **always** checks for errors.

REMEMBER

**There are NO
right or wrong
answers.**

This will not affect your grade. So please think about each question carefully before you circle your answer.

2 AIR SELF-DETERMINATION SCALE, STUDENT FORM

*Adapted from the AIR Self-Determination Scale, which was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement HO23J200005

Appendix E: AIR Self-Determination Scale: Adapted Student Form (continued)

THINGS I DO

	Never	Almost Never	Sometimes	Almost Always	Always
1. I know what I need, what I like, and what I'm good at.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. I set goals to get what I want or need. I think about what I am good at when I do this.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5


Things I do – Total Items 1 + 2 = _____

	Never	Almost Never	Sometimes	Almost Always	Always
3. I figure out how to meet my goals. I make plans and decide what I should do.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. I begin working on my plans to meet my goals as soon as possible.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Things I do – Total Items 3 + 4 = _____

	Never	Almost Never	Sometimes	Almost Always	Always
5. I check how I'm doing when I'm working on my plan. If I need to, I ask others what they think of how I'm doing.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. If my plan doesn't work, I try another one to meet my goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Things I do – Total Items 5 + 6 = _____

Please go on to the next page 

3 AIR SELF-DETERMINATION SCALE, STUDENT FORM

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Appendix E: AIR Self-Determination Scale: Adapted Student Form (continued)

HOW I FEEL

	Never	Almost Never	Sometimes	Almost Always	Always
1. I feel good about what I like, what I want, and what I need to do.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
2. I believe that I can set goals to get what I want.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5


How I feel – Total Items 1 + 2 = _____

	Never	Almost Never	Sometimes	Almost Always	Always
3. I like to make plans to meet my goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
4. I like to begin working on plans right away.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

How I feel – Total Items 3 + 4 = _____

	Never	Almost Never	Sometimes	Almost Always	Always
5. I like to check on how well I'm doing in meeting my goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
6. I am willing to try another way if it helps me to meet my goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

How I feel – Total Items 5 + 6 = _____

Please go on to the next page 

4 AIR SELF-DETERMINATION SCALE, STUDENT FORM

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Appendix E: AIR Self-Determination Scale: Adapted Student Form (continued)

WHAT HAPPENS IN MY SPORT

1. People in my sport listen to me when I talk about what I want, what I need, or what I'm good at.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
2. People in my sport let me know that I can set my own goals to get what I want or need.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5


What happens in my sport – Total Items 1 + 2 = _____

3. In my sport, I have learned how to make plans to meet my goals and to feel good about them.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
4. People in my sport encourage me to start working on my plans right away.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5

What happens in my sport – Total Items 3 + 4 = _____

5. I have someone in my sport who can tell me if I am meeting my goals.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
6. People in my sport understand when I have to change my plan to meet my goal. They offer advice and encourage me when I'm doing this.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5

How I feel – Total Items 5 + 6 = _____

Please go on to the next page 

5 AIR SELF-DETERMINATION SCALE, STUDENT FORM

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Appendix E: AIR Self-Determination Scale: Adapted Student Form (continued)

PLEASE WRITE YOUR ANSWERS TO THE FOLLOWING QUESTIONS...

Give an example of a goal you want to work on.

What can you do to reach this goal?

How well are you doing in reaching this goal?

THANK YOU!

6 AIR SELF-DETERMINATION SCALE, STUDENT FORM

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Appendix F: Action Plan Template

This is called an *action plan*. It has steps that you will take to get better at sports, like we talked about. You should look at these steps each time before you go to your sport. This will help you remember what you are working on. When I am there, I will remind you. After each step, write what you did in the “results” section. You can ask for help with that if you need to. If you have any questions or want to work on something else, we can talk about that. ☺

Action Step (Process of increasing self-determination)	Result (Is this step complete, on-going, or incomplete?)
1. Identify target self-determination skill	
2. Communicate target skill to coach	
3. Ask coach for feedback.	
4. Evaluate progress towards self-determination goal	
5. Adjust goal and/or create new goal (if necessary)	

Appendix G: AIR Self-Determination Scale: Adapted Educator Form

AIR SELF-DETERMINATION SCALE **ADAPTED EDUCATOR FORM – FOR OBSERVATION** [ORIGINAL AIR FORM](#)

STUDENT'S NAME _____
SPORT _____
OBSERVER'S NAME _____
DATE OF OBSERVATION _____

HOW TO FILL OUT THIS FORM

Each page of this form lists characteristics and behaviors that indicate the degree to which your student demonstrates traits of self-determination and the degree to which the people influencing your student provides opportunities that foster self-determination. For each item, select the appropriate rating code based on what you have observed about your student. An example is provided to illustrate each characteristic. Feel free to write in a different example that supports your rating for your student.

HOW TO MARK YOUR ANSWERS

Here is an example of how you should mark your answers.

Example question:

Student checks for errors after completing a project.

Example answer:

Check the box of the rating code which tells what your student is most like.

Check **ONLY ONE** box per question.

1. **Never**.....student **never** checks for errors.
2. **Almost Never**.....student **almost never** checks for errors.
3. **Sometimes**.....student **sometimes** checks for errors.
4. **Almost Always**.....student **almost always** checks for errors.
5. **Always**.....student **always** checks for errors.

1 *AIR* SELF-DETERMINATION SCALE, **OBSERVATION FORM**

*Adapted from the AIR Self-Determination Scale, which was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement HO23J200005

Appendix G: AIR Self-Determination Scale: Adapted Educator Form (continued)

ABILITY TO PERFORM SELF-DETERMINATION BEHAVIORS

1. Student expresses own interests, needs, and abilities. <i>Example:</i> Sarah communicates her athletic interest and talent in conversations, written journals, or participation in sports activities.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
--	--	---	--	--	---

Ability Total: Item 1 _____

2. Student knows how to make choices, decisions, and plans to meet own goals and expectations. <i>Example:</i> Anna weighed the pros and cons of doing three types of history projects, chose to write a research report, outlined the report, and made a schedule for completing the report on time.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
3. Student initiates actions on own choices and plans. <i>Example:</i> Ming begins work right away each time he gets an assignment or is asked by someone to help with a project.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5

Ability Total: Items 2 + 3 = _____

4. Student gathers information on results of actions. <i>Example:</i> After completing her work, Theresa checks it for errors and asks others to look it over and make suggestions.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
5. Student changes own actions or plans to satisfy expectations and goals, if necessary. <i>Example:</i> Ricardo tries different approaches to solve problems and to complete tasks that are difficult for him.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5

Ability Total: 4 + 5 = _____

2 AIR SELF-DETERMINATION SCALE, OBSERVATION FORM

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Appendix G: AIR Self-Determination Scale: Adapted Educator Form (continued)

OPPORTUNITY TO PERFORM SELF-DETERMINATION BEHAVIORS AT SPORTING ACTIVITY

1. Student has opportunities "during activity" to explore, express, and feel good about own needs, interests, and abilities. <i>Example:</i> Christine's teachers encourage her to talk about her athletic interests and abilities and about what sports activities she wants to do.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
2. Student has opportunities "during activity" to identify goals and expectations that will meet his or her needs, interests, and abilities; to set these goals; and to feel good about them. <i>Example:</i> Troy's teachers let him know that he is responsible for setting his own goals to get his needs and wants met.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
Opportunity at Sporting Activity Total: Items 1 + 2 = _____					
3. Student has opportunities "during activity" to learn about making choices and plans, to make them, and to feel good about them. <i>Example:</i> Shebra's teachers allow her to make her own choices and plans for school assignments, family chores, and leisure activities.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
4. Student has opportunities "during activity" to initiate actions to meet expectations and goals. <i>Example:</i> Manuel's teachers tell him that he is responsible for scheduling study time and for handing in assignments on time.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
Opportunity at Sporting Activity Total: Items 3 + 4 = _____					
5. Student has opportunities "during activity" to get results of actions taken to meet own plans. <i>Example:</i> Michelle's teachers are available to give feedback on projects whenever she needs it.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
6. Student has opportunities "during activity" to change actions and plans to satisfy own expectations. <i>Example:</i> Laurent's teacher encouraged him to take his time and to revise his work as often as necessary to satisfy his own expectations.	Never <input type="checkbox"/> 1	Almost Never <input type="checkbox"/> 2	Sometimes <input type="checkbox"/> 3	Almost Always <input type="checkbox"/> 4	Always <input type="checkbox"/> 5
Opportunity at Sporting Activity Total: Items 5 + 6 = _____					

3 AIR SELF-DETERMINATION SCALE, OBSERVATION FORM

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Appendix G: AIR Self-Determination Scale: Adapted Educator Form (continued)

ADDITIONAL OBSERVATION NOTES:This image shows a single sheet of white paper with horizontal blue or grey ruling lines, typical of notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.4 *AIR* SELF-DETERMINATION SCALE, OBSERVATION FORM

*Adapted from the AIR Self-Determination Scale, which was developed by the American Institutes for Research (AIR), in collaboration with Teachers College, Columbia University, with funding from the U.S. Department of Education, Office of Special Education Programs (OSEP), under Cooperative Agreement HO23J200005