

PREVALENCE OF SELF-DETERMINATION CONTENT IN TEACHER
EDUCATION PROGRAMS

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ABSTRACT

Self-determination, as it applies to special education, has been studied extensively. While the effects of self-determination for students with disabilities are established, there is still limited knowledge of the presence of the construct in preservice teacher preparation programs. This study begins to address this gap. In particular, a nationwide sample of secondary general education and special education teacher preparation programs was examined. Department chairs and program coordinators were surveyed and revealed a significant difference in the mean self-determination score of participants representing special education teacher preparation programs and participants representing secondary general education teacher preparation programs. Specifically, special education teacher preparation participants had a significantly higher mean score on the 'Autonomy' and 'Self-Regulation' sections of the survey across all participants, 'Autonomy' had the lowest mean of all of the sections. Participants identifying as a department chair had a significantly higher self-determination score than participants that did not identify as a department chair. Finally, participants representing a university located in a state with standards for secondary special education and self-determination had a significantly higher self-determination score than participants located in a state without a standard for secondary special education and self-determination.

To Addie: Don't let numbers intimidate you.

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CHAPTER 1

INTRODUCTION

Self- Determination

Historically, the treatment of individuals with disabilities has been marred by policy that favors isolation over inclusion. Throughout the late nineteenth and early twentieth centuries people with disabilities were confined to institutions, away from their families and communities. This practice set in motion a culture of isolation that is still evident today. Disablism, the discrimination of individuals because of their perceived ability, was cultivated throughout these times and continues to manifest. The effects of disablism are pervasive. In the United States, only 30% of adults with disabilities are employed (U.S. Congress, 2014). Consequently, individuals with disabilities are experiencing poverty at the rate of twice of their non-disabled population (U.S. Congress, 2014). The current state for individuals with disabilities necessitates intervention to change discriminatory practices. These interventions can begin in schools and can serve as a catalyst for a transformation within society. Education should focus not only on academic efficacy but also skills that will foster growth and independence.

Self-determination is an example of a concept that can be introduced by educators throughout curricula and can benefit students. For all students, but especially for students with disabilities, the development of self-determination is an essential part of education (Wehmeyer et al., 2007). Self-determination interventions can be an integral part of combatting disablism.

In many ways, the promotion of self-determination is a response to the treatment of individuals with disabilities and the change must begin within the nation's public

schools. Schools are a microcosm of society and reflect the way in which individuals are treated. As a marginalized population, individuals with disabilities experience discrimination in the community and that discrimination is translated to school practice. Lowered expectations and stigma meet students with disabilities when they enter their neighborhood schools (Shifrer, 2013). Educators, however, have a unique opportunity to begin to ameliorate some of the negative perceptions and outcomes experienced by students with disabilities. One way to do this is to promote self-determination for students with disabilities (Wehmeyer, 2015).

History of Self-Determination

Self-determination can be defined in a historical context. Locke and Rousseau examined the absolute authority of the European monarchies and questioned their sovereignty (MacFarlane & Sabanadze, 2013). They believed the people should hold power. The government, whether monarchy or elected, should act on the behalf of the people. The change in thinking, from monarch to democracy, was an empowering moment for individuals. The archaic divide between those in power and those marginalized could not be perpetuated because of a revolutionary idea: power should come from the masses; decisions should be made by the people. Citizens should exercise self-determination.

With the advent of social sciences, self-determination began to be studied as a concept by prominent researchers like B.F. Skinner and was also examined within motivational psychology (Wehmeyer, 2003). The focus of this body of literature was not the basic rights of citizens within a nation but the actions, whether internally or externally influenced, of individuals. In recent years, self-determination was a goal of the

Disability Rights Movement. The tenets of self-determination, which began with philosophers like Locke and Rousseau, were now peripherally applied to individuals with disabilities. Institutionalization, isolation, and marginalization were the products of years of subjugation and a transformation was needed to empower individuals with disabilities to become self-determined. Beginning with deinstitutionalization, the preferences of individuals with disabilities are now being valued. Individuals who left institutions in the late twentieth century had more options to make choices than those individuals who stayed in the institution (Stancliffe & Abery, 1997).

Within the last twenty years more attention is being directed towards self-determination. In educational policy, self-determination was included in federal policy since 1990 with the creation of the Individuals with Disabilities Education Act (Johnson, 1999). The Developmental Disabilities Act of 2000 also called for the promotion of self-determination (Developmental Disabilities Act, 2000). In 2004, the reauthorization of the Individuals with Disabilities Education Act called for greater attention and accountability in transition, especially to post-secondary education and employment (Gaumer, Erickson, Noonan, Brussow, & Gilpin, 2014). The increased attention to transition impacts self-determination as researchers found the two are related (Field & Hoffman, 2007). More recently, the National Longitudinal Transition Survey – 2 (NTLS2) included assessment questions focusing on self-determination (Shogren, Kennedy, Dowsett, & Little, 2014). The devotion to the promotion of self-determination within schools and communities by individuals with disabilities, researchers, policymakers, and educators make the construct essential.

When viewed through the lens of disability, self-determination is simultaneously a movement for a group of marginalized individuals and a dispositional characteristic (Wehmeyer, 2003). While both manifestations are applicable to access to the community, education, employment, and leisure activities, the dispositional characteristic is the focus the current study.

Self-Determination and Special Education

Self-determination, as it relates to special education, has drawn increased attention in the past 20 years. A growing empirical base driven by Wehmeyer and colleagues has focused on the effects of self-determination (Wehmeyer & Garner, 2003; Wehmeyer & Palmer, 2003). This research varies in its objective and its scope. While some studies focus on the capacity for self-determined behavior for individuals with disabilities, some literature focuses on the efficacy of interventions to increase self-determination. In addition, teacher and caregiver perception of self-determination in students has been examined. This research in turn has generated classroom-based interventions. These interventions can be group-based or administered to students individually. As the empirical literature base grew and practitioner use of interventions increased, valid instruments were necessary to measure the construct. Measures like the ARC Self-Determination Scale (SDS) and The American Institutes for Research Self-Determination Assessment (AIR) are now available for educators to implement within their programs (Shogren, Wehmeyer, Palmer, Soukup, Little, Garner, & Lawrence, 2008; Wehmeyer & Kelchner, 1995).

For the purpose of this study Wehmeyer's (1992) definition of self-determination will be utilized. He posits:

Self-determination refers to the attitude and abilities required to act as the primary causal agent in one's actions free from undue external influence or interference. It involves autonomy (acting according to one's own priorities or principles), self-actualization (the full development of one's unique talents and potentials) and self-regulation (cognitive or self-controlled mediation of one's behavior). (p. 305)

Wehmeyer's use of the term 'primary causal agent' is essential to self-determination and its implementation in classrooms. Students should be encouraged to voice their ideas and preferences within an educational context. This definition emphasizes the totality of self-determined behavior. Self-determination should be examined as an outcome created by the interaction of many skills: autonomy, self-actualization, and self-regulation. The amalgamation of skills, therefore, curtails the perspective that students are self-determined when they exhibit a component skill. Component skills, like choice-making and goal-setting, while important should not be misinterpreted as evidence of self-determination. Wehmeyer's definition situates self-determination holistically but also conceptualizes it as a measureable skill. Component skills, which include choice-making, self-awareness, and self-advocacy, are all ways to measure self-determined behaviors (Wehmeyer, 2003). It is important to note, Wehmeyer's model contains both component skills and characteristics of self-determination. This research study focused on the characteristics of self-determination.

Self-determination has evolved from a tool used to promote nation building in Europe to an educational intervention to combat discrimination for individuals with disabilities. While research on self-determination has been conducted, there are still gaps

in the empirical body of literature. One of these gaps is the examination of teacher preparation and self-determination.

Rationale

The present study is necessary for many reasons. One reason it is essential to study the presence of self-determination in teacher preparation programs is because of the documented effects of self-determination for individuals with disabilities within school and the community. For example, self-determination is a predictor of employment (Shogren et al., 2015). It also predicts job retention in adults with intellectual disabilities (Fornes, Rocco, & Rosenberg, 2009). Quality of life is affected by self-determination for adults with intellectual disabilities (Lachapelle et al., 2005). Within schools, self-determination was positively correlated with math and reading scores (Erickson et al., 2015). In addition to the studies supporting the benefits of possessing self-determined behavior for individuals with disabilities (Erickson, Noonan, Zheng, & Brussow, 2015; Lachapelle et al., 2005), the current study is essential because it focuses on teacher preparation programs and can help address some gaps in self-determination literature. Specifically, this study includes general education teacher preparation programs, which have been omitted in the past.

Another reason it is essential to conduct this study is because by reviewing teacher preparation programs the study will be uncovering curriculum decisions from an institutional perspective. As societal institutions, schools can reflect mechanisms within society that discriminate against individuals with disabilities; therefore, a closer examination of schools can reveal broader institutional biases. This is essential as people

with disabilities have been marginalized in the United States. As Baynton (2013) explains, “disability has functioned historically to justify inequality for disabled people themselves” (p. 34). Their perceived inabilities were used as a reason to keep them on the margins of society. The amalgamation of this discrimination is diminished outcomes in life. For example, in 2014 individuals with disabilities had a poverty rate of 28.5%; almost double the national poverty rate of 14.8% (DeNavas-Walk & Proctor, 2015). Societal implications of marginalization are mirrored in education. In 2012, the high school graduation rate for students in the United States was 81% (Kena et al., 2015). Students receiving special education services, however, graduated with a regular diploma with a rate of 65% for the 2012-2013 school year (Office of Special Education and Rehabilitative Services, 2015). Similarly, students with disabilities are dropping out of high school at higher rates than their peers without disabilities. In the 2012-2013 school year, the national dropout rate was 7% (Kena et al., 2015). That same year, students with disabilities had a dropout rate of 18.8% (Office of Special Education and Rehabilitative Services, 2015). Some of the differences in graduation rates may be explained by differences in the cognitive profiles of students with disabilities; however, this claim should not be used as the only justification for the discrepancies.

The adverse effects of special education classification (Allday, Duhon, Blackburn-Ellis, & Van Dycke, 2010; Conley, Ghavami, VonOhlen, & Foulkes, 2007) make this study important because self-determination has been shown to have positive effects for students with disabilities (Erickson et al., 2015; S. Lee, Wehmeyer, Shogren 2015). While in school, students with disabilities can experience stigma from their special education placement. The stigma can be a result of ableism and the label of disability

becoming part of a student's identity (Hale, 2015). Stigma can affect the socio-emotional well-being of students. Specifically, high school students receiving special education services under the learning disability or emotionally disturbed category had lower self-esteem scores than their peers without disabilities (Conley, Ghavami, VonOhlen, & Foulkes, 2007). These students believed they had diminished social skills, leadership ability, and academic competence compared with students without disabilities (Conley et al., 2007). A disability label also affects the way in which educators view students and their behavior. Teachers and parents of students diagnosed with learning disabilities had lower academic expectations for those students (Shifrer, 2013). Additionally, a label of oppositional defiant disorder or attention deficit hyperactivity disorder influenced preservice teachers' views of on-task behavior; students labeled as having oppositional defiant disorder were more likely to be viewed as having off-task behavior (Allday, Duhon, Blackburn-Ellis, & Van Dycke, 2010). Individuals with disabilities experience discrimination and its manifestations in the classroom and in society.

Given the profound societal implications of having a disability, it is necessary to equip students with skill sets that will enable them to assert their preferences. One way to do that is to develop self-determined behaviors. The benefits of becoming self-determined make the concept a valuable addition to curriculum. In order to assess the promotion of self-determination in the classroom, research must begin to observe the institutional practices of college and university teacher preparation programs. This study examines national trends in the presence of self-determination content in these programs. In particular, the study asked participants if their preservice teachers are prepared to help their future students with disabilities develop self-determined behaviors. It is likely that

introducing preservice teachers to self-determination will increase their knowledge and make them more inclined to promote these skills in their classroom. Before this connection can be made, teacher education curricula must be examined to determine the presence of self-determination.

Additionally, professional organizations like The Council for Exceptional Children (CEC), are promoting self-determination in their Special Educator Preparation Standards (Council for Exceptional Children, 2012). The CEC sees the value in self-determination and advocates that it should be a part of teacher preparation standards. CEC's endorsement of self-determination provides further rationale for this study. As a national leader in special education, their support of self-determination authenticates its benefits for students with disabilities and encourages further exploration of the topic. This study was designed to determine if university teacher preparation programs are including self-determination in their curriculum as advocated by CEC.

While self-determination, as a concept in special education, has been studied extensively in the past thirty years, there is still a gap in the literature focusing on preservice teachers and self-determination. Three studies conducted in the past 15 years have reviewed the interaction between preservice teachers and self-determination. Thoma, Baker, and Saddler (2002) surveyed special education department chairs across the United States to find trends in teaching self-determination; however, they did not compare those results with general education practitioners nor did they inquire about the aspects of self-determination: self-regulation, self-realization, autonomy, and psychological empowerment. Their focus was on the component skills of self-determination (Thoma, Baker, & Saddler, 2002). The current study extends the

knowledge of the presence of self-determination in special education teacher preparation programs by inquiring the extent to which each characteristic of self-determination is present. Additionally, this study updates Thoma, Baker, and Saddler's (2002) findings.

Another study, Nevin, Malian, and Williams (2002), investigated the effects of a specialized preservice teacher program that focused on self-determination as well as student-led IEP skills. Their study offers a detailed look at a specific intervention for preservice teachers and results suggest that direct instruction can increase awareness of self-determination (Nevin, Malian, & Williams, 2002). Nevin, Malian and Williams' (2002) results make a significant contribution to the self-determination literature and this study extends their findings to a nationwide sample.

Finally, Thoma, Pannozo, Fritton, and Bartholomew (2008) utilized a qualitative review of midterm answers to judge the efficacy of a self-determination teaching module. Results furthered Nevin, Malian, and Williams' (2002) findings that implementing self-determination interventions can increase awareness of the concept. Again, while this study establishes that implementing interventions can increase awareness of self-determination, it does not offer a nationwide perspective. All of these studies focus on self-determination and preservice teachers but do not examine the national trends of teacher preparation programs and the specific characteristics of self-determination that these programs include.

The omission of general education preservice teachers in the self-determination literature poses a problem. The absence of general education teacher preparation programs limits understanding of a student's educational experience because students with disabilities encounter general education teachers throughout their schooling. As

students with disabilities are educated in the general education classroom it is necessary to include general education practitioners in the survey.

The current study reviews the practices of general education and special teacher preparation programs. The study offers a current view of self-determination and its presence in teacher preparation curricula. The comparison between general education teacher programs and special education teacher programs offers insight into the similarities and differences between teacher preparation programs. To find where the gaps in knowledge occur, it is necessary to survey teacher preparation programs to determine which characteristics of self-determination are being promoted and which are being ignored. The answer to this question can lay the foundation to begin a conversation about the improved pedagogical instruction offered to preservice teachers.

Significance

The results of this study may prove beneficial for students, teachers, and those affected by or impacted by the Disability Rights Movement. Additional attention provided to self-determination as a concept will help further the goals of these three groups of stakeholders. Self-determination has been proven to increase quality of life and academic achievement for individuals with disabilities (Erickson, Noonan, Zheng, & Brussow, 2015; Lachapelle et al., 2005). An updated survey of the presence of self-determination in teacher preparation programs may bring renewed focus to the concept. A study that includes general education teachers will assist in highlighting the importance for all educators to be knowledgeable in the promotion of self-determination. Self-determination has been shown to be beneficial for students with disabilities; one can deduce that the same results may be true for students without disabilities. The current

National Center for Education Statistics Condition of Education revealed 6.43 million students received special education services during the 2012 - 2013 school year (Kena et al., 2015). With the large number of students receiving special education services, it is necessary to ensure those students are receiving an education that is supported by evidence-based practice. Self-determination interventions could improve students' educational and life experiences (Erickson, Noonan, Zheng, & Brussow, 2015; Lachapelle et al., 2005).

Preservice teachers may also benefit from the results of this study. Including self-determination within curriculum during preservice learning can impact teachers throughout their teaching careers. A review of preservice curricula could improve efforts to teach self-determination to student-teachers. Novice teachers could consequently feel more confident in their ability to support students to act in a self-determined manner. In addition to the documented benefits of self-determination for students, implementing interventions in the classroom can change teachers' perceptions of their responsibilities. Specifically, teachers can view their role as emancipatory.

This study is important to the continuing growth of the Disability Rights Movement. By emphasizing the importance of self-determination in the classroom, students will be empowered to make decisions that reflect their goals and preferences. Similarly, promotion of self-determination would teach students the necessary skills to become efficacious advocates. Students may be able to question the societal barriers imposed because of their disability. A generation of self-advocates could further the goals of the founders of the Disability Rights Movement. Goals of equity and access could be endorsed.

Finally, results from this study will allow reflection on the institutional practices and decisions that affect special education policy. Post-secondary institutions can review the topics and skills promoted in their curricula and examine the implications for students.

Statement of Purpose

The direct and explicit purpose of the study was to examine the promotion of self-determination in higher education teacher preparation programs. It seeks to identify which of the four, if any, characteristics of self-determination are present in teacher education programs. From a narrow special education perspective, self-determination should be promoted because it has a diverse and empirically proven literature base. It has been shown to be a predictor of academic achievement, social skills, employment, and quality of life indicators (Konrad, Fowler, Allison, Walker, Test, & Wood, 2007; McDougall, Evans, & Baldwin, 2010; Nota, Ferrari, Soresi, & Wehmeyer, 2007; Test, Mazzotti, Mustian, Fowler, Kortering, & Kohler, 2009). In short, self-determination has the propensity to impact the lives of individuals with and without disabilities. When self-determination is fostered in the early developmental years, its effects are enduring throughout a lifetime (Shogren, Wehmeyer, Palmer, Rifenbark, & Little, 2015). The continuing effects of self-determination make it an imperative skill to implement in the classroom. The first step in establishing classroom use is to survey the current field of teacher preparation programs. Teachers need to understand self-determination before they can teach it in their classrooms. Their first exposure to self-determination and its implication for the classrooms can come in their initial teacher preparation program. The

purpose of this study was to determine the extent to which self-determination is included in the curriculum of university- based teacher preparation programs.

In addition to measuring the presence of self-determination and self-determination component skills in preservice special education teacher preparation programs, it is essential to measure the same components in general education teacher preparation programs. Recent trends in education have changed the way students with disabilities experience the classroom. Inclusive educational environments are becoming best practice in schools across the country; in fact in 2012, 94.8% of students receiving special education services spent some part of their day in the general education classroom (US Department of Education, 2014). As a result, students with disabilities are being educated in general education classrooms in accordance with the principle of least restrictive environment. This shift in educational policy introduces students with disabilities to a greater number of general education practitioners. Whether it is elementary educators or content area instructors in secondary settings, all teachers should be encouraged to promote self-determination. Without the knowledge of self-determination, it would be difficult for teachers to promote the concept efficiently.

Research Questions

To examine the promotion of self-determination in preservice teacher preparation programs, this study will seek to answer three questions:

1. To what extent do the participants perceive that students in their education program are prepared to teach students with disabilities the four characteristics

of Self-Determination: Autonomy, Self-Regulation, Psychological Empowerment, and Self-Realization?

- a. Are there significant differences among the means of the four characteristics?
 - b. Are there differences among the four characteristics in undergraduate special education teacher preparation programs as compared to undergraduate general secondary education teach preparation programs?
2. Do participants from teacher preparation programs located in a state with secondary special education standards for self-determination perceive that their teachers are better prepared to teach self-determination to students with disabilities as compared to respondents from teacher preparation programs located in states without secondary special education standards for self-determination?
 3. Does a participant's position within a university- faculty, department chair or program coordinator- affect the way in which he or she views the presence of self-determination in curriculum?

CHAPTER 2

REVIEW OF LITERATURE

Self-Determination – An Introduction

Before reviewing self-determination literature, it is important to reiterate the necessity of this research. Primarily, self-determination can be used to promote equality. In theory, increased self-determination would lead to greater control of one's life. Historically, individuals with disabilities do not experience self-determination to the same degree as individuals without disabilities (Houchins, 2002). This is the case for a myriad of reasons related to subjugation, isolation, and false perceptions. Wehmeyer and Meltzer (1995) found that adults with intellectual disabilities had lower rates of self-determination when surveyed about the level of choice and control in their lives (Wehmeyer & Metzler, 1995). Participants with disabilities believed they had less control than individuals without disabilities (Wehmeyer & Metzler, 1995).

The study of self-determination is also important because within the construct of disability there can be false perceptions about the capacity of an individual to possess self-determined behavior. Teachers rated students diagnosed with emotional and behavioral disorders as having less self-determined behavior than students with learning disabilities (Carter, Lane, Pierson, & Glaeser, 2006; Carter, Trainor, Owens, Sweden, & Sun, 2010). Perpetuation of perceptions of a lower capacity to be self-determined is evident in living arrangements; adults with intellectual disabilities living in more restricted environments had less personal control (Stancliffe, Abery, & Smith, 2000). This lack of personal control inhibits the opportunities for self-determination

development and reflects on the larger societal theme of dependence for individuals with disabilities.

Finally, it is necessary to study self-determination because individuals with disabilities are the stakeholders. Individuals with disabilities value self-determination, so it is crucial to continue to study the construct (Nonnemacher & Bambara, 2011). Adults with intellectual disabilities found self-determination to be important and valued the construct more than professionals in the field (Schalock et al., 2005).

Further, a series of interviews with adults with intellectual disabilities found three themes relating to self-determination: meaning of self-determination, learning about self-determination, and dreams for the future (Shogren & Broussard, 2011). The participants identified choice, control, working towards a goal, and advocacy as the components of self-determination (Shogren & Broussard, 2011). The components of self-determination were mostly taught to the participants in adulthood, and very few stated they learned about self-determination in school. In adulthood, self-determination was discussed at conferences, trainings, and through the mentorship of experienced self-advocates (Shogren & Broussard, 2011). Adults with intellectual disabilities valued self-determination and shared the importance of the personal supports and environmental opportunities needed to develop and implement their skills (Shogren & Broussard, 2011). Given the importance of self-determination to individuals with disabilities, it is necessary that it be presented in schools. Waiting to provide instruction until adulthood does not support the needs of the individual. Thus, it is important that teachers are equipped to provide their students with learning opportunities that will enhance their self-determination in their post-school years.

Functional Theory of Self-Determination

Wehmeyer (1999) developed a functional model of self-determination. This integrative model, which includes motivational theory and human development research, operationally defines self-determination as “functional properties of the response class” (Wehmeyer, 2003, p. 176). The function of the response class is characterized by the four essential characteristics of self-determination. The functional theory warns against misinterpretations of the definition of self-determination based on the response class alone or self-determination as a human right (Wehmeyer, 2003). It is not the response that makes a determined action but the function of that action.

The development of the essential characteristics of self-determination is dependent upon the capacity of the individual and opportunities for self-determined actions. In this theory, self-determination is viewed as an interaction between people and their environment (Wehmeyer & Abery, 2013). Increased opportunities for self-determined actions are connected to the environment and experience (Wehmeyer, 2003). These opportunities are related to the capacity to sustain the behavior. If individuals are not afforded opportunities to develop and practice self-determined behaviors, then they will have difficulty with these behaviors later in life (Sands & Wehmeyer, 1996). In this context, developing children will learn the component skills of self-determination as they grow (Sands & Wehmeyer, 1996).

The theory is empirically supported by Wehmeyer, Kelchner, and Richards (1996). Their study, which consisted of 407 participants classified as having an intellectual disability, demonstrated that individuals with autonomy, self-regulation, self-realization, and psychological empowerment are more self-determined (Wehmeyer,

Kelchner, & Richards, 1996). Wehmeyer discusses the four characteristics of self-determined behavior to illustrate the comprehensive nature of self-determination.

The creation of the ARC Self-Determination Scale was based upon Wehmeyer's functional theory of self-determination and is divided into subsections to address each characteristic of self-determination (Shogren, Wehmeyer, Palmer, Soukup, Little, Garner, & Lawrence, 2008). In the following section, an example from the ARC Self-Determination Scale is used to illustrate each of the four characteristics of self-determination.

Characteristics of Self-Determination

Behavioral Autonomy

For individuals to act with self-determination, their actions must be autonomous (Wehmeyer, 2003). As noted previously, this action must be without undue external pressure. Undue external pressure may be from family, friends, or school personnel and minimizes the desires of the individual. Decisions should reflect the preferences of the individual. Wehmeyer cites Sigafos et al. (1988) and their work describing four categories of independent living. They are "self-/family-care activities, management activities, recreational/leisure activities, and social/vocational activities" (Wehmeyer, 2003, p. 183). Decisions in these categories were at one time made for individuals with disabilities and are an integral part of the daily experiences of all.

Autonomy items on the ARC Self-Determination (1995) scale ask participants to endorse how often they complete an activity. For instance, one item states, "I plan weekend activities that I like to do," another states, "I work on school work that will improve my career chances" (Wehmeyer & Kelchner, 1995). Questions in the autonomy

section focus on personal preferences and the frequency of opportunities presented to complete activities.

Self-Regulation

Self-regulated behavior is defined as individual's "actions are self-motivated, planned, goal-oriented, self-monitored, and self-evaluated behaviors based on experience and continually adapted to accommodate varying conditions" (Cho, Wehmeyer, & Kingston, 2013, p. 771). Regulation of one's behavior takes sustained attention, consequently actions such as choosing and reevaluating goals can be a laborious task. Self-regulation can be supported within the classroom and community and is commonly viewed as the sole behavior of self-determination.

The self-regulation section on the ARC Self-Determination Scale (1995) invites participants to complete a missing piece of a narrative. The beginning and end of a vignette are presented and the student hypothesizes what is missing. These prompts are focused on problem-solving within relationships and interactions in the community and school. One prompt explains, "You hear a friend talking about a new job opening at the local bookstore. You love books and want a job. You decide you would like to work at the bookstore" (Wehmeyer & Kelchner, 1995). The prompt concludes with the participant receiving the job. This task involves setting a goal and then establishing steps to achieve the goal. An individual with self-determined behavior would ascertain the actions to receive the job.

Psychological Empowerment

Psychological empowerment is contingent on an individual's feeling of control. Wehmeyer cites Zimmerman's model (1990) as a foundation for psychological

empowerment. There are three characteristics: locus of control, motivation, and personal efficacy (Wehmeyer, 2003). To have a positive sense of control, individuals must feel they are able to complete a task and that they have control over the outcome. Without this positive perspective, individuals may feel isolated and feel as if they possess little control over their situation (Wehmeyer, 2003).

Questions in section 3 of the ARC Self-Determination Scale (1995) allow participants to reflect upon their social interactions and decision-making processes by choosing between two options. One question asks adolescents to choose between “I usually agree with people when they tell me I can’t do something” or “I tell people when I think I can do something that they tell me I can’t” (Wehmeyer & Kelchner, 1995). Questions like these elicit responses that show the participants feelings of control and ability to influence their environments.

Self-Realization

The final characteristic of Wehmeyer’s functional theory of self-determination is self-realization. For individuals to be self-realized they must fully understand their strengths and areas in which they can improve (Wehmeyer, 2003). An individual’s “self-knowledge and self-understanding forms through experience with and interpretation of one’s environment and is influenced by evaluations of significant others, reinforcement, and attributions of one’s own behavior” (Wehmeyer, 1999, p. 58). Self-realization results in performing tasks that individuals have confidence in and this reinforces their sense of self.

Section four of the ARC Self-Determination Scale (1995) focuses on an adolescent’s degree of self-realization. Participants are asked to agree or disagree with

several statements. For example “I know how to make up for my limitations” and “I do not feel ashamed of my emotions” are items on this section of the scale (Wehmeyer & Kelchner, 1995). These items are designed to elicit a student’s ability to practice self-realization.

Component Elements of Self-Determination

The four characteristics of self-determination are supported by component elements that are essential for self-determined behavior. Originally, Wehmeyer identified these components as: choice-making skills, decision-making skills, problem-solving skills, goal-setting and attainment skills, self-observation, self-evaluation and self-reinforcement skills, self-instruction skills, self-advocacy and leadership skills, internal locus of control, positive attributions of efficacy, self-awareness, and self-knowledge (Wehmeyer, Sands, Doll, & Palmer, 1997). Due to the interconnectedness of these concepts, they were later collapsed into five components. The first component is self-awareness and self-knowledge (Sands & Wehmeyer, 1996). This component requires an awareness of individuals’ strengths and areas for improvement and whether individuals can apply this understanding to guide their actions; included in this component is the capacity for metacognition (Sands & Wehmeyer, 1996). The second component element, self-evaluation and attributions of efficacy, involves an individual’s locus of control as well as an ability to assess one’s actions. This assessment should be an accurate representation of the individual’s current functioning and should be incorporated with other’s view of that individual (Sands & Wehmeyer, 1996). Individuals with an internal locus of control will feel that they can control and influence the events in their life. Next, choice-making and decision making involve empowering individuals to

express their preferences without the undue influence of others. During choice-making individuals select an outcome they desire. Choice-making is perhaps the most identified component of self-determination (Thoma, Pannozzo, Fritton, & Bartholomew, 2008). Choice-making is an element in decision-making; however, decision-making employs higher order cognitive skills (Wehmeyer et al., 1997). For example, when making a decision, individuals must consider the implications of their decision and problem-solve any perceived impediments (Wehmeyer et al., 1997). It is through decision making that processes regarding self-knowledge and self-evaluation are employed. Decisions regarding school, career, and enjoyment activities are essential in exerting power over one's life. The fourth component element of self-determined behavior is meta-representation, which is the ability to understand the context of social interactions (Sands & Wehmeyer, 1996). In meta-representation a "self-determined person...[acquires] a diverse array of effective social behaviors with which to meet any conceivable situation that he or she might encounter as well as the social cognitive skills that permit the individual to accurately assess social events and select the correct behavior to use" (Sands & Wehmeyer, 1996, p. 77). The final component of self-determination, goal-setting and task-performance, are interrelated. In goal setting, an individual sets a goal and determines the steps to acquire the objective. Throughout these steps, individuals must review and assess their performance and determine their efficacy. The review should be accurate, especially when compared with others (Sands & Wehmeyer, 1996).

When Sands and Wehmeyer (1996) collapsed the original component elements of self-determination, they omitted self-advocacy and leadership. Both elements do not find spots in the revised list; however, it is necessary to highlight them as related concepts.

From an educational perspective, it is important for teachers to reinforce the words “self-advocacy” and “leadership.” Students should be reminded of the importance of these concepts as they are essential to the creation of self-determination (Wehmeyer et al., 1997) and emphasize the significance of advocating for one’s rights.

Misconceptions of Self-Determination

It is important to identify the characteristics and essential components of self-determination; however, it is equally important to address common misconceptions of the definition and function of self-determination. Primarily, self-determination should not be viewed as an outcome (Wehmeyer, 2005). While interventions exist to promote self-determination, it is a behavior that is constantly refined and produced; therefore, it is not an objective to complete. Consequently, viewing self-determination as a list of skills and behaviors can be misleading (Wehmeyer, 2005). Any behavior or absence of behavior can be self-determined; thus, an attempt to define a behavior would be futile and limits the scope of self-determination (Wehmeyer, 2005). Similarly, the variety of actions and inactions that self-determined individuals perform cannot be packaged as a program (Wehmeyer, 2005). Interventions aimed at increasing participation at IEP meetings, setting goals, and making informed decisions are effective in producing a behavior but should not be confused with creating self-determined individuals. This thinking simplifies the complexities and nuances of self-determination as a construct. Finally, it is important to clarify the misconception that all self-determined behavior is contingent on independent performance (Wehmeyer, 2005). Self-determined individuals can act with support of others, as long as their preferences and autonomy are at the core of the action.

The misconceptions of self-determination as a concept are not listed to discourage educators and policy makers from implementing interventions that promote self-determination. Conversely, these misconceptions are necessary to consider when planning activities to promote self-determination. Instead of hindering the application of interventions, these misconceptions serve as reminders to the complicated nature of the construct.

Effects of Self-Determination

A review of the self-determination literature begins in the late twentieth century. The literature spans disability category, age, and environment. Schools, vocational, and community settings create a robust sampling of settings in which self-determination is developed and exercised. As self-determination is a developmental process (Sands & Wehmeyer, 1996), it is important to review literature in a holistic manner. In addition to developmental processes, an evaluation of classroom and community interventions displays the efficacy of the intervention. Self-determination has been found to have positive effects for individuals with disabilities (Wehmeyer et al., 2007). From elementary school settings to adulthood, self-determination shapes lives. Promotion of self-determination in children and adolescents is imperative as the current capacity for self-determination predicts future levels of self-determination (Shogren et al., 2015). A review of the self-determination literature reveals the necessity for exploring its presence in teacher preparation programs.

Self-Determination and Inclusion

Self-determination predicts the amount of time students with disabilities are included in the general education classroom; students with higher levels of self-

determination had more time in the general education classroom (Shogren, Wehmeyer, Palmer, & Paek, 2013). Specifically, the placement of students with emotional or behavioral disorders (EBD) is impacted by their level of self-determination. When comparing three placements, a neighborhood high school, a separate school, and residential placement, students with EBD in the neighborhood school had the highest teacher and parent ratings of self-determination (Van Gelder, Sitlington, & Morrison Pugh, 2008). Displaying self-determined characteristics was correlated with an increase of inclusion for these students with EBD. This finding is similar to Stancliffe (2001); this study found opportunities for inclusion in school and the community increase with self-determined behavior (Stancliffe, 2001). When reviewing these studies it is important to consider the complex relationship of opportunity, capacity, and self-determination. Researchers cannot predict the source of self-determination; it is unclear whether it is the setting that increases the capacity for self-determination or the students more capable of self-determined behavior were included in different settings.

Self-Determination and Academic Efficacy

Self-determination skills can be developed in the classroom. When successfully implemented, self-determination interventions can have academic and functional outcomes (Fowler, Konrad, Walker, Test, & Wood, 2007; S. Lee, Wehmeyer, & Shogren, 2015). Self-determination is positively correlated with reading and math achievement in students with intellectual disabilities (Erickson et al., 2015). Additionally, positive effects were found in productivity of math and language arts assignments for students with developmental disabilities (Fowler et al., 2007). In students with learning disabilities or ADHD, self-determination increased academic

efficiency through setting goals and self-management (Konrad, Fowler, Walker, Test, & Wood, 2007). These students also experienced gains in math skills (Konrad et al., 2007). Incarcerated adolescents' academic skills were bolstered by self-determination (Houchins, 2002). Students with and without disabilities participated in Houchins' study that examined self-determination scores and achievement (Houchins, 2002). When achievement indicators, such as reading and math scores, were examined, self-determination predicted level of achievement (Houchins, 2002).

While not directly related to academic efficacy, self-determination has affected classroom behavior. It can promote desirable behavior for students with ADHD and Conduct Disorder as students were able to regulate their academic work habits (Cash et al., 2003). Elementary school-aged students experienced an increase in self-regulation after completion of a self-determination intervention (Cash et al., 2003).

Self-Determination and Transition

Similar to academics, self-determination can be helpful in the transition following high school. During transition and transition preparation, students are reflecting upon their educational experiences and are planning their next steps in life. Whether the next step is post-secondary education or entering the workforce, there are essential skills that will enable students to be successful. Instruction in self-determination can impact a student's skills and subsequent life choices.

Self-determination instruction can assist in the assessment of a student's interest, the strengthening or promotion of the student's opinions, and the assessment of specific transition knowledge (Field & Hoffman, 2007). It can also be helpful in goal creation and career decision-making for individuals utilizing vocational rehabilitation services

(Wehmeyer et al., 2003). Benitez, Latimer, and Wehmeyer (2005) found that when students used their Self-Determined Career Model during transition, the students were able to progress in the goals they set for themselves (Benitez, Lattimore, & Wehmeyer, 2005). For students interested in exploring prospective jobs, self-determination can be beneficial in career planning (S. Lee et al., 2015).

A closer examination of specific self-determination interventions can provide insight to gains made during transition. Utilization of the *Self-Directed Individualized Education Program (IEP)*, an intervention designed to promote self-determination during transition, increased student participation in IEP meetings (Seong, Wehmeyer, Palmer, & Little, 2014). Participation in an IEP meeting can prove to be a beneficial way for students to express their interests when planning for a new school year or post-secondary environments. Use of the *Self-Directed IEP* program increased self-determination scores as well as transition empowerment scores (Seong et al., 2014). The Transition Empowerment Scale measures students' level of self-advocacy through students' levels of empowerment, participation in designing their transition, and daily living activities (Seong et al., 2014). Another intervention, *Beyond High School*, was implemented with a group of adults with intellectual disabilities between the ages of 18-21. Completion of the program increased students' self-determination scores and allowed the students to generalize their skills to other settings (Arndt, Konrad, & Test, 2006). Other studies found, regardless of intervention type, students with high self-determination had higher transition empowerment scores (Shogren, Wehmeyer, Palmer, Soukup, & et al., 2007). These types of interventions can be an integral part of transition planning for students with disabilities.

National Longitudinal Transition Survey – 2

Transition gains and their intersection with self-determination for students with disabilities was evident through the National Longitudinal Transition Survey – 2 (NLTS2). The NLTS2 measured secondary and post-secondary experiences for adolescents and young adults with disabilities over a ten-year span. In addition to a diverse range of moderator variables and outcomes, the NLTS2 modified the ARC's Self-Determination Scale (Wehmeyer & Kelchner, 1995) in an effort to examine self-determination. The modified scale included questions from the autonomy, self-realization, and psychological empowerment sections of the original instrument (Shogren et al., 2014). The first finding from analysis of the NLTS2 dataset was a significant relationship between self-determination, self-concept and academic achievement (Zheng, Erickson, Kingston, & Noonan, 2014). Specifically, self-determination was a predictor for math and reading achievement (Zheng et al., 2014). Self-determination also had a relationship to self-concept (Shogren et al., 2014; Zheng et al., 2014).

When examining self-determination and its impact on individual disability categories, Shogren et al (2014) found that the presence of social networks was a significant predictor of autonomy for students with sensory disabilities. This suggests that students with a greater level of autonomy, a characteristic of self-determination, had meaningful relationships in their school and community. Additionally, self-realization was related to inclusion for students with cognitive disabilities (Shogren et al., 2014).

The NLTS2 also revealed important information regarding post-secondary institution attendance. Students with disabilities receiving Supplementary Security Income benefits' self-determination scores, specifically psychological empowerment and

autonomy, were associated with attendance at a two or four year institution (Berry, Ward, & Caplan, 2012). This is an important finding because it gives educators insight into choosing a tool to utilize with their students who have an interest in attending a postsecondary institution.

Finally, the NLTS2 assessed the impact of specific demographic variables on self-determination. Income, gender, or urbancity did not have a relationship with self-determination (Zheng et al., 2014). Therefore, a diverse population of individuals can benefit from instruction in self-determination components.

Self-Determination and Adult Outcomes

As individuals develop, self-determination continues to be beneficial. One area with improved outcomes is employment. After completion of secondary education, self-determination is a predictor of employment for individuals with disabilities (Shogren et al., 2015; Test, Mazzotti, Mustian, Fowler, Kortering, Kohler, 2009). Once employment is obtained, self-determination is a significant predictor of job retention, performance, and satisfaction for adults with intellectual disabilities (Fornes, Rocco, & Rosenberg, 2009).

Adults with disabilities with self-determined behaviors have improved outcomes in employment, as well as post secondary education (Test, Mazzotti, Mustian, Fowler, Kortering, Kohler, 2009). Students with disabilities attending post-secondary institutions valued the components of self-determination. Through focus groups they listed problem solving, goal-setting, self-management, and self-awareness as integral parts of their college success (Getzel & Thoma, 2008; Thoma & Getzel, 2005). These components are essential for navigating a college campus, advocating with professors, completing college

curriculum, and accessing services. Additionally, targeted instruction in self-advocacy predicted self-determination in college students with disabilities (Morningstar et al., 2010). Specifically, students involved in their IEP meetings had opportunities for development in self-determination (Morningstar et al., 2010). This is an important link between instruction in secondary education and future outcomes for students with disabilities.

Additionally, self-determination increases quality of life in adults with intellectual disabilities (Lachapelle et al., 2005). Self-determination is significantly related to quality of life for individuals with other disabilities as well (McDougall et al., 2010). Perceptions of self-satisfaction, specifically personal development and fulfillment, were related to a participant's level of self-determination (McDougall et al., 2010). These results were evident over time (McDougall et al., 2010).

Finally, self-determination impacts an individual's interaction within the community; positive outcomes from self-determination are evident in community access (Shogren et al., 2015). Adults with intellectual disabilities living in the community were more satisfied than those living in residential placements (Wehmeyer et al., 2007). Of great importance is the independence that self-determination allows adults with disabilities. Self-determination is positively correlated to independence outcomes in adults (Cobb, Lehmann, Newman-Gonchar, & Alwell, 2009). Along with independence, self-determination impacts how individuals feel about their environment. Adults with high scores on self-determination measures had higher social skills and a greater sense of satisfaction (Nota, Ferrari, Soresi, & Wehmeyer, 2007).

The benefits of self-determination across the lifespan support the necessity of teaching self-determination in the classroom. Early and repeated exposure to self-determination interventions can positively impact individuals with disabilities throughout their lifespans. This evidence makes a compelling argument for the inclusion of self-determination in teacher education programs.

Promotion in the Classroom

Instructional Decisions

Given the multiple positive effects of self-determination, it is necessary for teachers to promote self-determination interventions in the classroom. The implementation of self-determination interventions can increase a teacher's perception of opportunities for self-determination as well as students' capacity for self-determination (Shogren, Plotner, Palmer, Wehmeyer, & Paek, 2014). This finding makes self-determination interventions even more crucial in the classroom.

Teachers and educational administrators have many decisions to make when choosing a self-determination intervention. Self-determination interventions can be implemented in whole group, in conferences with students, or in a one-on-one environment (Algozzine, Browder, Karvonen, Test, & Wood, 2001). Interventions with many components are the most effective (Cobb et al., 2009).

A review of self-determination interventions found that most interventions focused on the themes of choice making or self-advocacy (Algozzine et al., 2001). Choice making interventions were promoted with students with intellectual disabilities, while self-advocacy was utilized for students with learning disabilities or mild intellectual disabilities (Algozzine et al., 2001). Another review found choice-making,

self-management, and problem solving to be the most implemented interventions for individuals with severe disabilities (Wood, Fowler, Uphold, & Test, 2005). Choice-making is an important skill for students with severe disabilities and promoting choice does increase self-determination (Wood et al., 2005). The least utilized attributes of self-determination were self-advocacy knowledge and self-efficacy (Algozzine et al., 2001).

When special education high school teachers were surveyed they reported promoting activities to enhance self-determination frequently (Zhang, Katsiyannis, & Zhang, 2002). These activities included setting goals, determining the steps to meeting goals, and encouraging students to advocate for teacher assistance (Zhang et al., 2002). Some surveyed teachers reported a failure to engage in activities that promoted self-determined behavior. By not allowing students to create their own schedules, course or transition plans, teachers limited opportunities for self-determination (Zhang et al., 2002).

Self-Determination Interventions

Self-determination interventions can increase self-determination in high school aged students with disabilities (Cobb et al., 2009; Wehmeyer, Palmer, Shogren, Williams-Diehm, & Soukup, 2013). Teachers have a diverse selection of interventions to choose from, including: *Choice Maker Curriculum*, *Self-Advocacy Strategy*, *Steps to Self-Determination*, *Whose Future is it Anyway?*, *Self-Determined Learning Model of Instruction*, and *Next S.T.E.P. Curriculum* (Wehmeyer et al., 2013). Classroom interventions are essential because instructional knowledge can predict self-determination (Y. Lee et al., 2012). Specifically, students with knowledge of self-determined behaviors have a higher level of self-determination. This is an important observation, as self-determination should not be viewed as a fixed trait within a student. The skill can be

effectively taught and reinforced in the classroom and community. Students' self-determination scores were predicted by their knowledge of transition planning, as well as their self-efficacy (Y. Lee et al., 2012).

One particular intervention, Self-determined Learning Model of Instruction (SDLMI), facilitates teachers in encouraging self-directed learning (S. Lee et al., 2015). During the intervention students set, monitor, and evaluate goals. This approach has been shown to increase problem solving, academic achievement, and participation while decreasing undesirable behavior in the general education classroom for students with disabilities (S. Lee et al., 2015). SDLMI also increases on-task behavior for students with EBD in secondary education (Kelly & Shogren, 2014). Functionally, implementing SDLMI improved job performance and goal orientation (S. Lee et al., 2015). Students were more involved in career planning after implementation of SDLMI (S. Lee et al., 2015). When high school students with intellectual disabilities participated in SDLMI within job placements, they were able to successfully set goals and solve problems (McGlashing-Johnson, Agran, Sitlington, Cavin, & Wehmeyer, 2003).

A 2-year study queried the effectiveness of SDLMI in goal attainment and access to the general education curriculum. Access to the general education curriculum was operationalized as meeting an IEP goal or objective, utilizing an accommodation or modification, or completing a grade level or general education assignment. Two groups of high school students, one group with learning disabilities and one group with intellectual disabilities, were assigned to a treatment or control group. The analysis of the intervention proved beneficial to the treatment groups (Shogren, Palmer, Wehmeyer, Williams-Diehm, & Little, 2012). Students with learning disabilities in the treatment

group had significantly higher academic goal achievement than the control group, while students with intellectual disabilities in the treatment group had significantly higher transition goal achievement than the individuals in the control group (Shogren et al., 2012). Similarly, students with learning disabilities and intellectual disabilities in the treatment group made significant gains in access to general education when compared with the control group (Shogren et al., 2012). Thus, SDLMI can have positive effects for students with disabilities.

Another intervention aimed at increasing self-determination in secondary students with disabilities, *Take Charge*, displayed improvements in multiple predictors (Powers et al., 2012). Adolescents with disabilities between the ages of 16 and 17.5, who completed the intervention, had higher levels of employment and independent living skills than students in the control group (Powers et al., 2012). Students in the intervention group also completed high school at a higher rate (Powers et al., 2012). Increased levels of self-determination predicted quality of life and utilization of transition services for the students who participated in *Take Charge* (Powers et al., 2012). Finally, participation in the *Self-Directed Individualized Education Program*, a classroom intervention, was shown to increase self-determination (Seong et al., 2014). The decision to promote self-determination in the classroom can empower students during the transition process and consequently, throughout their lives.

Teacher Perception

Educational Environments

Both special education and general education teachers value self-determination and believe it is an important skill for students to learn (Agran, Snow, & Swaner, 1999;

Cho, Wehmeyer, & Kingston, 2011; Sebald, 2013). While both groups of teachers value self-determination, special educators find it to be of greater importance (Carter, Lane, Pierson, & Stang, 2008; Stang, Carter, Lane, & Pierson, 2009). This difference could be a result of training or experience with teaching students with disabilities; however, the opportunities for self-determined behavior were evident in both general and special education settings (Stang et al., 2009). Opportunities for self-determined actions were present in required academic classes and elective classes (Carter et al., 2008).

There is a limited research base surrounding the belief of the best educational environment to promote self-determination. Within the continuum of special education placement, the more restricted the classroom environment the less likely a teacher would be to view self-determination instruction as important (Wehmeyer, Agran, & Hughes, 2000). However, Zhang (2001) found that students with mild intellectual disabilities had more opportunities for self-determined behavior in the resource room. The students had decreased opportunities in the general education classroom (Zhang, 2001). The researcher hypothesized three different reasons for this discrepancy. First, he thought that students might be more intimidated in the general education classroom (Zhang, 2001). Additionally, the reduced number of students in the resource room could have provided more opportunities. Finally, he hypothesized that the training of the special education teacher could be more conducive to offering opportunities to students (Zhang, 2001). To further complicate the discussion, elementary special education teachers practicing in three environments, special education, resource room, and the self-contained classroom, found self determination to be more important than special education teachers teaching only in the general education classroom (Cho, Wehmeyer, & Kingston, 2012).

The lack of consensus surrounding the environment to best promote self-determination emphasizes the need for all teachers to be prepared to deliver interventions and reinforce the skills.

Teachers find many components of self-determination to be beneficial for students. Middle and secondary special educators believe self-determination is important for “social, affective, and cognitive benefits” (Agran, Snow, & Swaner, 1999, p. 298). In particular teachers saw goal-setting as an important skill to teach (Cho et al., 2011). Other teachers viewed the ability to solve problems as the most important component of self-determination followed by self-management and regulation and decision-making (Stang et al., 2009). A connection between severity of disability and instructional methodology has been established; secondary special education teachers of students with less severe disabilities used goal-setting and self-monitoring, instruction, and evaluation more often (Wehmeyer et al., 2000). General education teachers found self-advocacy and self-awareness to be less important goals of self-determination (Carter et al., 2008).

Beliefs in the Efficacy of Self-Determination

It is commonly believed that secondary teachers would value self-determination more than middle and elementary teachers because they are preparing their students for transition. Some believe self-determination can be thought of only in the context of transition. Stang, Carter, Lane, and Pierson (2009) found this to be false. They determined that middle and elementary school professionals, both general and special education teachers, valued self-determination (Stang et al., 2009). Middle school teachers spent more time teaching skills that would induce self-determination (Stang et al., 2009). The middle and elementary school special education teachers rated self-

determination higher than their general education colleagues (Stang et al., 2009). One of the factors that did predict teaching of self-determination in an elementary school classroom is the teaching of certain self-regulation strategies (Cho et al., 2012). Elementary special educators who promoted self-instruction, self-evaluation, and goal setting taught self-determination more frequently (Cho et al., 2012).

Another common belief is that teachers would view opportunities for self-determination differently for students in various disability categories. Early studies supported this view and found that teachers considered severity of disability when judging the importance of teaching self-determination (Wehmeyer et al., 2000). The more severe the student's disability, the less likely the teacher was to view benefits from self-determination (Wehmeyer et al., 2000). In later studies, teachers' thinking began to evolve. Shogren, Wehmeyer, Palmer, Soukup, Little, Garner, and Lawrence (2007) determined that while cognitive capacity did predict a teacher's view of student capacity for self-determined behavior, it did not impact the teacher's view of opportunities for that behavior. Contrarily, other studies have found adolescents labeled as emotionally disturbed had fewer opportunities for self-determination than students with learning disabilities, both at home and in school (Carter et al., 2006). Other studies did not find disability category to be a predictor of the teaching self-determination to students (Cho, Wehmeyer, & Kingston, 2013).

Instead of disability category, a student's social skills are a predictor of a teacher's rating for a student's self-determination capacity (Carter et al., 2010; Pierson, Carter, Lane, & Glaeser, 2008). Perceived undesirable behaviors, while not defined in the literature, did not negatively impact self-determination ratings (Pierson et al., 2008).

Barriers to Promotion

The perceived importance of self-determination does not predict the amount of instructional time dedicated to teaching the components of self-determination (Cho et al., 2011; Cho et al., 2013; Stang et al., 2009). The reasoning behind this phenomenon may be complex. Some teachers cite other academic areas taking away from the time they would like to spend on self-determination (Cho et al., 2011). Others felt as if they were not prepared to teach these skills (Cho et al., 2012; Mason, Field, & Sawilowsky, 2004). Another perceived barrier to instruction is limited resources related to self-determination (Cho et al., 2012). Wehmeyer, Argan, and Huges' (2000) study supported teachers' feelings of under preparedness in which they found only 12% of secondary special education teachers surveyed had self-determination instruction in their undergraduate programs.

Teacher Preparation and Self-Determination

Many professionals begin their path to teaching in a university or college teacher education program. Colleges and universities are charged with the responsibility of shaping and enhancing the next generation of educators. These teacher preparation programs may be the introduction to educational theory and pedagogical practices. Through rigorous curriculum, experiential learning opportunities, and mentorship, preservice teachers are indoctrinated to the tenants of education in the United States. In addition to providing a theoretical basis, they must promote state professional standards while maintaining accreditation. The assumption within university teacher education programs is the knowledge being disseminated is being internalized and will consequently shape future practices of their students.

The literature surrounding the presence of self-determination in teacher preparation programs is sparse. In 2002, Thoma, Baker and Saddler found that 54% of special education teacher preparation programs included courses that contained self-determination as a topic (Thoma et al., 2002). This sample included graduate and undergraduate classes which would fall into the categories of transition, secondary teaching methodology, trends and issues, and classes presenting disabilities and specific strategies (Thoma et al., 2002). These classes utilized multiple strategies to teach self-determination, including more traditional lecture and readings to class discussion and IEP goal creation (Thoma et al., 2002). The most frequently taught concepts were decision-making, choice-making, and self-advocacy, while problem-solving was the least utilized component skill (Thoma et al., 2002). The importance programs placed on teaching self-determination however did not predict the frequency in which they taught the concept (Thoma et al., 2002). A similar phenomenon was found when surveying teachers about their view of self-determination (Cho et al., 2011; 2013).

When tested on their knowledge of self-determination, preservice teachers had similar outcomes. After completion of a transition course, preservice teachers could correctly identify self-determination as a concept (Thoma et al., 2008). Instruction on self-determination improved preservice teacher's definition of self-determination when compared with their pre-test definition (Nevin et al., 2002). Direct instruction can improve preservice teaching; however, teachers still retain common misconceptions about the concept (Thoma et al., 2008). Most prevalent are the impressions that self-determination and choice-making are synonymous, that communication necessitates self-determination, and that the facilitation of self-determination is based upon the actions of

the teacher (Thoma et al., 2008). The results of Thoma et al. (2008) and Nevin et al. (2002) coupled with the call for more preservice learning opportunities (Wehmeyer et al., 2007) emphasize the need for a more comprehensive self-determination curriculum.

Further evidence for the lack of instruction in self-determination in teacher preparation programs is the testimony from practicing teachers. A survey of special education teachers found that 67% found their undergraduate/graduate training in self-determination inadequate (Thoma, Nathanson, Baker, & Tamura, 2002). When asked specifically where their training occurred, 32% of respondents identified graduate classes, 16% identified undergraduate coursework (Thoma et al., 2002). Of the strategies the teachers currently used in the classroom, none of those were fostered in their teacher training programs (Thoma et al., 2002). However their experience in undergraduate and graduate education unfolded, special education teachers agree that promotion of instruction in self-determination was necessary (Thoma et al., 2002).

Thoma, Nathanson, Baker, and Tamura's (2002) study provides the basis for the examination of the presence of self-determination in teacher education programs. The participants in Thoma's study reported inadequate self-determination training in their teacher preparation programs. This claim makes it essential to further investigate, especially because Thoma's study was conducted over ten years ago. An updated review of teacher curriculum is necessary. Additionally, the study sought information directly from colleges and universities. This is an important consideration because Thoma, Nathanson, Baker, and Tamura (2002) relied upon practicing teachers' recollection of events, which may or may not be accurate.

While the above-mentioned study surveyed teacher perception, Thoma, Baker and Saddler (2002) examined the particular skills present in preparation programs. This study found important information regarding the component skills; however, not the individual characteristics of self-determination. Component skills of self-determination include decision making, problem solving, goal setting, and choice making. The characteristics of self-determination, behavioral autonomy, self-regulation, self-realization, and psychological empowerment, were examined in this study and therefore offer new information to the self-determination literature. Additionally, Thoma et al. (2002) requested that department chairs forward their survey to faculty who teach secondary special education or transition classes. This study solicited information directly from the department chair or program coordinator, as they have a comprehensive view of their program.

Finally, Thoma et al.'s (2008) research proved teaching preservice teachers self-determination increased their understanding of the concept. This finding is important for this study because it proves that students can learn about self-determination when they are properly instructed. This is an important consideration when evaluating curriculum, as it is proof that including a topic and teaching it effectively can promote the skill.

Promotion of Self-Determination for General Education Practitioners

It is necessary to survey general education teacher preparation programs because of the number of students with disabilities being educated outside of the special education classroom. In the past 15 years federal legislation has mandated the inclusion of students with disabilities. The Individual with Disabilities Education Improvement Act 2004 (IDEIA) called for an increased focus on including students with disabilities (Yell,

Katsiyannis, Ryan, McDuffie, & Mattocks, 2008). In particular, IDEIA pushed for inclusion in the general education classroom and participation in state assessments (Yell et al., 2008). As this trend of inclusion continues and expands, general education teachers will be increasingly called on to teach students with disabilities in their classrooms. In 2012, 61.5% of students receiving special education services spent at least 80% of their school day in the general education classroom; 94.8% spent a portion of their day in the general education classroom (US Department of Education, 2014). Given the importance of the effects of self-determination for students and the increase of students with disabilities in the classroom, it is necessary for general education practitioners to become exposed to the concept.

The appropriate place for this exposure is in the college and university classroom. A university curriculum should be infused with self-determination material for two reasons. First, a review of studies focusing on teacher perception of inclusion revealed that many general education teachers had a negative or neutral perspective of inclusion (de Boer, Pijl, & Minnaert, 2011). This negative view could affect students' experiences in the classroom. Fortunately, researchers have found that preservice teaching placements can change teacher perception. Student-teachers with exposure to co-teaching have an increased positive attitude towards inclusion (McHatton & Parker, 2013). General education teachers participating in classes focusing on special education instruction had an increase in their knowledge of creating accommodations for assessments (Brown, Welsh, Hill, & Cipko, 2008). Adding self-determination to the curriculum could change preservice teacher's perception of students with disabilities and their placement. Another reason to change the curriculum would be to bolster preservice

teachers' knowledge of instruction for students with disabilities. Previous research has stated that general education teachers feel underprepared and not equipped to help students with disabilities (Burke & Sutherland, 2004; Sadler, 2005). Instruction in self-determination would improve this knowledge and also allow teachers to deliver quality instruction to students with disabilities.

As teacher preparation programs are held accountable under the new federal mandate, it is necessary to promote self-determination in these programs. The efficacy of self-determination interventions on the academic and post-secondary outcomes for students with disabilities has proven that self-determination is too crucial to ignore. In order to increase the utilization of self-determination interventions in classrooms, preservice teachers must become competent in the concept and application of self-determination.

This study is important to the self-determination literature for two reasons. First, it extends existing studies, which have found a need for self-determination instruction in preservice special education teacher preparation programs (Thoma et al. 2002; Thoma et al. 2002). It also explores a new population within the literature, general education teachers. The inclusion of general education teachers in the study responds to the increasing number of students with disabilities receiving their education in the general education environment. Determining if the characteristics of self-determination exist in general education preparation programs offers a new insight into the experiences of preservice teachers.

CHAPTER 3

METHODOLOGY

Introduction

A quantitative design was utilized to determine the presence of self-determination in teacher preparation programs. In particular, the presence of the characteristics of self-determination in teacher preparation programs was examined. Surveys were distributed to accredited secondary education and special education teacher preparation programs across the United States. Data collected from this survey were analyzed utilizing SPSS®.

Participants

The participants for this study were department chairs and program coordinators of special education and secondary general education teacher preparation programs at universities and colleges in the United States. These participants have knowledge of curriculum and field experiences of preservice teachers and were able to discuss the extent to which self-determination content was present. The survey was based Wehmeyer's characteristics of self-determined behavior. Before each characteristic's subsection, a definition of that characteristic was presented to the participant.

Participants were recruited from the Council for the Accreditation of Educator Preparation (CAEP) list of accredited institutions. CAEP is a national teacher accreditation organization. Accreditation is through peer review to "meet standards set by organizations representing the academic community, professionals, and other stakeholders" (Council for the Accreditation of Educator Preparation, 2015). Since CAEP is recognized as a national agency, its accreditation represents uniformity in program standards.

A national sample was examined. Through the exploration of university webpages, the email addresses of special education and general secondary education teacher department chairs and program coordinators were collected. These email addresses were used to contact participants to complete the survey. The survey was conducted utilizing SurveyMonkey.com. Confidentiality was maintained, as data were redacted once they were downloaded.

Of 170 submitted surveys, 136 surveys were used for data analysis. The remaining 34 surveys were discarded because the participants did not finish the survey. In particular, surveys were designated as incomplete if the participants did not attempt any of the questions in the four characteristics of self-determination subsections.

The sample represented every geographical region of the United States. Table 3.1 specifies the states each participant identified. Pennsylvania had the most participants ($N=12$). The number of states represented was 40; Washington D.C. was also represented.

Table 3.1
Location of Participants' Universities

State	Frequency	Percent
Alabama	2	1.5
Alaska	1	0.7
Arizona	1	0.7
Arkansas	5	3.7
California	7	5.1
Colorado	3	2.2
Connecticut	1	0.7
Florida	6	4.4
Georgia	4	2.9
Hawaii	2	1.5
Idaho	1	0.7
Illinois	4	2.9
Indiana	4	2.9
Kansas	3	2.2
Kentucky	2	1.5
Louisiana	1	0.7
Maine	1	0.7
Maryland	2	1.5
Massachusetts	3	2.2
Michigan	3	2.2
Minnesota	4	2.9
Mississippi	1	0.7
Missouri	5	3.7
Montana	1	0.7
Nebraska	3	2.2
Nevada	1	0.7
New Jersey	7	5.1
New Mexico	3	2.2
New York	9	6.6
North Carolina	6	4.4
North Dakota	1	0.7
Ohio	4	2.9
Oklahoma	4	2.9
Oregon	1	0.7
Pennsylvania	12	8.8
South Carolina	8	5.9
Tennessee	4	2.9
Texas	1	0.7

Table 3.1 (continued)

Virginia	2	1.5
Wisconsin	2	1.5
Washington DC	1	0.7
Total	136	

Participants were asked to identify their position within the university. For this question participants were able to choose multiple responses: 101 participants identified as faculty members, 40 participants identified as a department chair, 60 participants identified as a program coordinator, and 14 participants identified as ‘Other.’ Some of the responses for the ‘Other’ category included dean or instructor.

The 136 participants have diverse academic backgrounds. Participants identified their discipline of their highest degree, Table 3.2 indicates responses. The ‘Other’ category allowed participants to complete an open-ended response. Frequent ‘Other’ disciplines included Curriculum and Instruction, Math, English, Educational Policy, and Educational Psychology.

Table 3.2
Discipline of Highest Degree

Discipline	<i>N</i>	Percentage of Sample
Special Education	51	37.5%
Education	20	14.7%
Higher Education	3	2.2%
Secondary Math	1	0.7%
Secondary Science	2	1.5%
Secondary English	5	3.7%
Secondary Social Studies	1	0.7%
Elementary Education	1	0.7%
Educational Leadership	12	8.8%
Other	40	29.4%
Total	136	

Participants were asked which teaching preparation program they were affiliated with. Data revealed 36.8% of participants taught in a special education K-12 program, 27.2% taught in a general secondary education program, 5.1% taught in a early childhood/elementary general education program, 3.7% taught in a special education elementary education program, 1.5% taught in a special education secondary education program, 25% taught in a program not listed, and .07% chose not to answer the question. If participants chose ‘not listed’ they were asked to enter their program, examples of these answers included ‘Special education early childhood,’ Secondary Education-Discipline Specific,’ and ‘ABA, Autism.’ When asked specifically if they taught in a

special education program, a general education secondary education program, or neither, 49.3% of participants chose special education, 39% of participants chose general education, 4.4% chose neither, and 7.4% did not answer the question.

Instruments

To assess the extent of the presence of self-determination in teacher preparation programs, an instrument was designed. The survey has three sections: demographic information, characteristics of self-determined behavior, and curricular decisions. First, questions gathering demographic information, including program certification, location, and state mandates were presented. Utilizing The ARC Self-Determination Scale (Wehmeyer & Kelchner 1995), questions were developed using the characteristics of self-determination: self-regulation, autonomy, self-realization, and psychological empowerment. Finally, curricular questions were presented. Curricular questions asked department chairs to identify courses in which the components of self-determination are present. Additionally, this section asks participants to rate the importance of teaching self-determination to preservice teachers.

To measure for content validity, experts in the field reviewed the survey for clarity and accuracy. It is essential that the survey items are representative of the characteristics of self-determination; therefore reviewers determined if each item was related to self-determination.

Procedure

The development of a survey involved multiple steps. Artino, LaRocelle, Dezee and Gehlbach (2014) list seven steps for creating an instrument. Gehlbach and Brinkworth (2011) endorsed a similar process for instrument creation. In this study, three

of their seven steps were implemented. First, a literature review is necessary to determine the current trends in the field. The researcher should then integrate the information gathered from the literature review to develop the survey items (Artino, La Rochelle, Dezee, & Gehlbach, 2014). Experts should validate the resulting survey (Artino, La Rochelle, Dezee, & Gehlbach, 2014). This step was achieved by requesting leaders in teacher preparation programs to review the survey items.

The survey was constructed utilizing SurveyMonkey.com. Utilizing the Internet has many benefits, including quick access to participants, a lower chance for error in completion, and low costs for researchers (Rhodes, Bowie, & Hergenrather, 2003). The ease of transporting data between participants and statistical programs, like SPSS®, is another benefit of utilizing the Internet to conduct surveys (Rhodes et al., 2003).

Utilizing the CAEP list of accredited universities, each institution's website was searched to determine the department chair or coordinator of special education and general secondary education preparation programs. Participants' email addresses were gathered from these university webpages. The survey was distributed via email. The generated email included a link to the survey as well as a message indicating directions for completion of the survey. These directions asked the department chair or coordinator to answer each question about their teacher preparation program. Participants were informed that it would take approximately 10 minutes to complete. In an effort to increase return rate, a lottery incentive was implemented (Sauermann & Roach, 2013). Participants' names were entered into a lottery for a chance to win one of three \$50 Amazon gift cards.

Participants were encouraged to complete the survey. An additional method to increase response rates is sending multiple reminders to participants (Sauermann & Roach, 2013). Specifically, three reminders had a significant effect on response rate (Sauermann & Roach, 2013). Participants consequently received three email reminders. Sauermann and Roach (2013) found that varying the message in each reminder positively affected response rate. The wording was changed in each of the messages to participants who had not replied.

Based upon previous studies eliciting information from university or college faculty, the return rate should have been between 10 % and 14% (Hadsell & MacDermott, 2012; Kleinhans, Chakradhar, Muller, & Waddill, 2015; Paulson, 2012). Literature identifies education faculty as having a higher response rate; one study of preservice education faculty members had a return rate of 29.4% (Harvey, Yssel, & Jones, 2014). When special education teacher preparation coordinators were surveyed (Robb, Smith, & Montrosse, 2012), the return rate was 78.1%. A similar study surveyed student teaching coordinators and had a response rate of 42% (Markelz, Riden, Scheeler, 2017). Another study for special education faculty had an even higher return rate of 56% (Neeper & Dymond, 2012). This literature suggests the special education teacher preparation participants would have a higher return rate than their counterparts in secondary education.

In this study, 609 email invitations were sent. Of these emails, 25 were returned as undeliverable. One hundred-seventy participants responded by completing the survey; therefore, the return rate for this survey was 27.9%. This return rate is higher than

previous studies suggest (Hadsell & MacDermott, 2012; Kleinhans, Chakradhar, Muller, & Waddill, 2015; Paulson, 2012).

When the survey was completed, responses were downloaded from the Internet and stored securely.

Data Analysis

Data analysis began with demographic questions. Of particular importance in the demographic information section is the participants' knowledge of state standards promoting self-determination. A hypothesis can be formed predicting a program located in a state with teaching standard focusing on self-determination would include self-determination in its curricula. This question helps to support or reject this hypothesis. Also present in the demographic information section was a question regarding the state in which an institution is located

Next, statistical analysis was necessary to examine the research questions. In particular, this research was interested in preservice teacher program type and the presence or absence of self-determination content in the curriculum. Utilizing survey results, raw scores were created for each self-determination characteristic; therefore, each participant had a score for the presence of autonomy, self-regulation, psychological empowerment, and self-realization. The individual characteristic scores were totaled to determine a mean self-determination score.

CHAPTER 4

RESULTS

Introduction

A survey was distributed to chairs and program coordinators of special education and secondary general education teacher preparation programs to answer the research questions:

1. To what extent do the participants perceive that students in their education program are prepared to teach students with disabilities the four characteristics of self-Determination: Autonomy, Self-Regulation, Psychological Empowerment, and Self-Realization?
 - a. Are there significant differences among the means of the four characteristics?
 - b. Are there differences among the four characteristics in undergraduate special education teacher preparation programs as compared to undergraduate general secondary education teach preparation programs?
2. Do participants from teacher preparation programs located in a state with secondary special education standards for self-determination perceive that their teachers are better prepared to teach self-determination to students with disabilities as compared to respondents from teacher preparation programs located in states without secondary special education standards for self-determination?

3. Does a participant's position within a university- faculty, department chair or program coordinator- affect the way in which he or she views the presence of self-determination in curriculum?

The survey consisted of self-determination characteristic questions, which were divided into four subsections. These four subsections are essential in determining the degree in which the characteristics of self-determination are present in teacher preparation programs. Additionally, demographic questions were presented to assist in data analysis.

Since this instrument was designed for this study, internal consistency was tested. Cronbach's Alpha was computed to test for internal consistency. A recommended satisfactory value for α when comparing groups is 0.7 to 0.8 (Bland & Altman, 1997). There were four sections that corresponded to each of the characteristics of self-determination: Autonomy ($\alpha = .95$), Self-Regulation ($\alpha = .92$), Psychological Empowerment ($\alpha = .94$), and Self-Realization ($\alpha = .94$). Additionally, a power analysis for a two group ANOVA determined 64 subjects, 32 per group, are required for a medium effect size.

Data Analysis

Data were downloaded from SurveyMonkey.com in the form of an Excel document. Once downloaded, data were reviewed and blank entries were removed. To ensure confidentiality all identifiers were eliminated. This included participant email addresses that were used for the gift card lottery. Next, concise variable names were assigned. Finally, data were uploaded to SPSS for analysis.

Self-Determination Characteristic Questions

The self-determination characteristic questions were the focus of the survey and were integral in addressing the research questions. Each participant was asked to indicate the extent to which the students in their teacher education program are prepared to teach students with disabilities to complete specific tasks. They chose one of six responses: ‘not sure,’ ‘not prepared,’ ‘slightly prepared,’ ‘moderately prepared,’ ‘very prepared,’ or ‘extremely well-prepared.’ To compute a mean, each response was assigned a weight. ‘Not sure’ received a zero, ‘not prepared’ received a one, ‘slightly prepared’ received a two, ‘moderately prepared’ received a three, ‘very prepared’ received a four, and ‘extremely well-prepared’ received a 5. During data analysis ‘not sure’ responses were coded as missing to ensure the participants mean scores would not be adversely affected.

The responses to the self-determination characteristic questions were used to create 5 new variables. Specifically, the means for the ‘Autonomy,’ ‘Self-Regulation,’ ‘Psychological Empowerment,’ and ‘Self-Realization’ subsections were established. A total mean for the four combined subsections was also calculated. These new variables were computed by SPSS®.

Findings

The following tables (4.1, 4.2, 4.3, and 4.4) present the means and standard deviations for each item in the four self-determination characteristics subsections. The minimum score a participant could earn on each item is a one and the maximum score is a five.

Table 4.1
Means and Standard Deviations for Self-Realization Subsection

Item	Special Education			General Education			General and Special Education		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
1. Promote self-worth	65	3.42	0.88	41	3.20	1.08	106	3.33	0.96
2. Be confident in their skills	65	3.32	0.77	40	3.03	1.05	105	3.21	0.90
3. Be comfortable with their emotions	65	3.09	0.91	38	2.87	1.04	103	3.01	0.97

Table 4.2
Means and Standard Deviations for Self-Regulation Subsection

Item	Special Education			General Education			General and Special Education		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
1. Set and maintain goals	65	3.74	0.90	42	3.26	0.89	107	3.55	0.91
2. Problem-solve in a school environment	64	3.58	0.77	42	3.21	0.84	106	3.43	0.82
3. Revise plans when goals are not being achieved	65	3.46	0.94	39	3.03	1.04	104	3.30	0.99
4. Make decisions during transition planning	64	3.48	0.91	34	2.79	1.12	98	3.24	1.04
5. Advocate for their interests when making post-secondary transition decisions	64	3.38	1.03	32	2.53	1.11	96	3.09	1.13
6. Develop interpersonal skills to navigate peer relationships	64	3.16	0.96	38	2.92	1.02	102	3.07	0.99
7. Problem-solve in a home environment	64	2.89	1.01	35	2.63	1.19	99	2.80	1.08
8. Problem-solve in their vocational setting	63	2.90	1.00	35	2.31	1.21	98	2.69	1.11

Table 4.3
Means and Standard Deviations for Psychological Empowerment Subsection

Item	Special Education			General Education			General and Special Education		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
1. Have control over their academic endeavors	65	3.29	0.86	39	2.79	1.01	104	3.11	0.94
2. Have confidence in their decision-making	65	3.20	0.85	40	2.90	0.96	105	3.09	0.90
3. Foster an attitude of resilience	64	3.19	0.90	38	2.89	1.01	102	3.08	0.94
4. Express their opinions even when they do not align with the opinions of others	65	3.08	0.92	39	2.95	0.92	104	3.03	0.92
5. Trust their self-advocacy skills	65	3.15	0.97	38	2.76	1.05	103	3.01	1.02

Table 4.4
Means and Standard Deviations for Autonomy Subsection

Item	Special Education			General Education			General and Special Education		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
1. Complete daily living skills	65	3.23	1.13	36	2.58	1.16	101	3.00	1.18
2. Choose careers to explore in which they are interested	65	3.25	1.09	37	2.43	1.17	102	2.95	1.18
3. Exercise personal choice without undue influence by parents or teachers	66	3.14	0.96	36	2.47	1.11	102	2.90	1.06
4. Participate in career development	65	3.17	1.04	36	2.42	1.25	101	2.90	1.17
5. Determine extra-curricular activities	66	3.00	1.02	36	2.61	1.18	102	2.86	1.09
6. Choose friends	66	2.92	1.04	35	2.40	1.06	101	2.74	1.07
7. Visit future job sites	64	3.00	1.20	35	2.20	1.26	99	2.72	1.27
8. Pursue higher education	64	2.88	1.12	35	2.29	1.07	99	2.67	1.13
9. Make financial decisions independently	65	2.52	1.03	35	2.00	1.09	100	2.34	1.08

Research Question #1

Research question one seeks to determine to what extent do the participants perceive that students in their education program are prepared to teach students with

disabilities the four characteristics of Self-Determination: Autonomy, Self-Regulation, Psychological Empowerment, and Self-Realization?

- a. Are there significant differences among the means of the four characteristics?
- b. Are there differences among the four characteristics in undergraduate special education teacher preparation programs as compared to undergraduate general secondary education teach preparation programs?

The means and standard deviations for the four components by type of program are presented in Table 4.5.

Table 4.5:
Means and Standard Deviations by Program Type

	Psychological Empowerment	Self-Realization	Autonomy	Self-Regulation
Special Education (N = 63)	3.19 (.793)	3.26 (.788)	3.02 (.886)	3.34 (.729)
General Education (N = 35)	2.81 (.886)	3.00 (1.08)	2.38 (.960)	2.84 (.906)
Total (N = 98)	3.05 (.842)	3.17 (.908)	2.79 (.960)	3.16 (.828)

A two-way, repeated measures ANOVA was conducted on the data in Table 4.5. These results are presented in Table 4.6.

Table 4.6
ANOVA Summary Table for Program Type

Source	Sum of Squares	df	Mean Square	F	Significance	Partial Eta Squared
Between Subjects						
Group (Special Education Vs. General Education)	17.843	1	17.843	7.556	.007	.073
Error	226.710	96	2.362			
Within Subjects						
Characteristic	10.191	3	3.397	16.746	.000	.149
Characteristic * Group	1.867	3	.622	3.068	.028	.031
Error	58.424	268	.203			

As shown in Table 4.6, there is a significant main effect for type of program with a medium effect size, a significant main effect for characteristic with a large effect size, and a significant interaction with a small effect size. The data indicate the following in reference to the research question:

- The overall mean for preparedness is 2.95. On the five- point Likert scale used to measure preparedness, this mean is slightly below the level indicating “moderately prepared”. Overall, therefore, the respondents consider the pre-service teachers not well prepared to teach self-determination to students with disabilities.

Paired samples t-tests were used to compare the means for the four characteristics across program type. These results are presented in Table 4.7.

Table 4.7

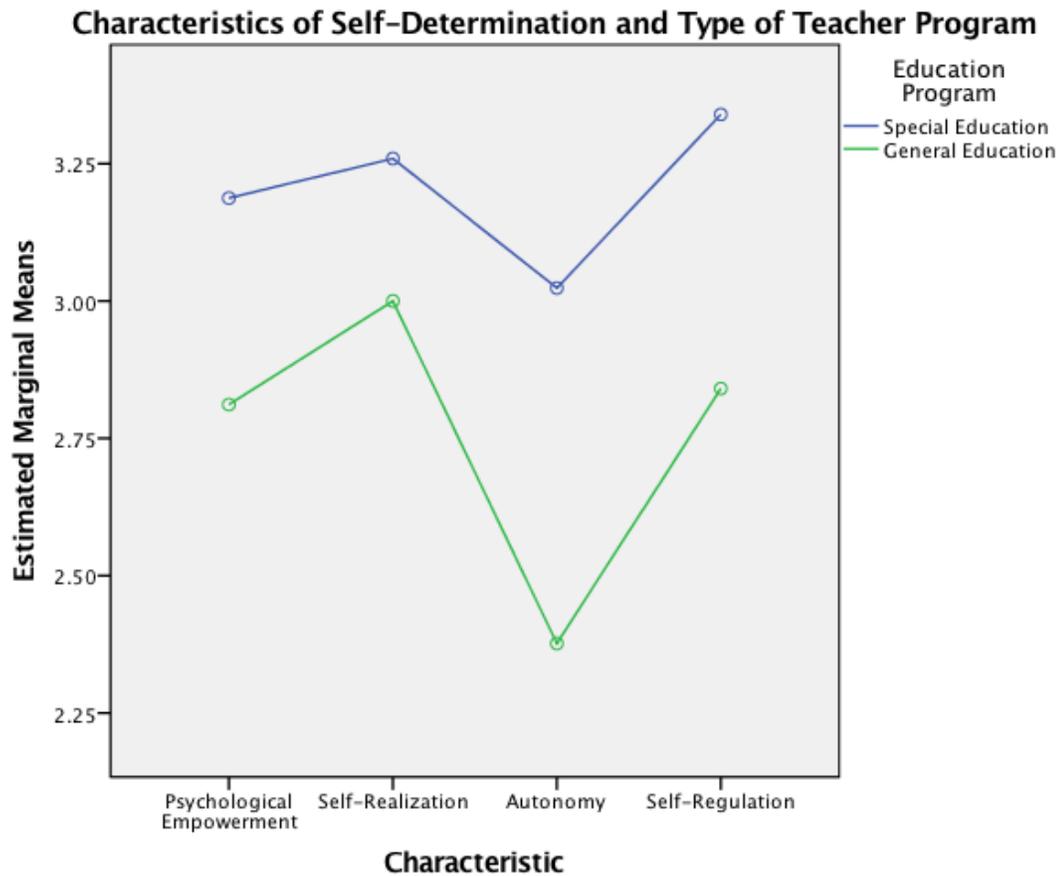
Paired Samples t-tests for the Four Characteristic

Characteristic	Mean	Autonomy	Psychological Empowerment	Self-Regulation	Self-Realization
Autonomy	2.78	-			
Psychological Empowerment	3.08	.000	-		
Self-Regulation	3.16	.000	.049	-	
Self-Realization	3.21	.000	NS	NS	-

As shown in Table 4.7, the component with the lowest mean is ‘Autonomy’ which is significantly different from the other three components. The only other comparison that is significant is between ‘Psychological Empowerment’ and ‘Self-Regulation.’ That difference, however, is minimal.

- A graph of the interaction is presented in Figure 4.1.

Figure 4.1 - Interaction for Characteristic and Program



A follow-up analysis was conducted on the significant interaction. The pattern of significant differences among the four components was essentially the same for both the special education and general education respondents. There were two significant differences when comparing the special education to the general education respondents: for ‘Autonomy’ ($t = 3.302, p = .001$) and ‘Self Regulation’ ($t = 2.65, p = .009$).

Further analysis was conducted between individual items. Table 4.11 displays each item that had a significant difference between participants associated with secondary general education preparation programs and those associated with special education preparation programs.

Table 4.8
Statistically Significant Independent T-Tests for Individual Self-Determination Items for Special and General Education Teacher Preparation Programs

Self-Determination Characteristic Section	Item	General Education			Special Education			
		<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>
Autonomy	Complete daily living skills independently	36	2.58	1.16	65	3.23	1.13	2.74*
Autonomy	Choose friends	35	2.40	1.06	66	2.92	1.04	2.39*
Autonomy	Exercise personal choice without undue influence by parents or teachers	36	2.47	1.11	66	3.14	.96	3.16*
Autonomy	Make financial decisions independently	35	2.00	1.09	65	2.52	1.03	2.37*
Autonomy	Choose careers to explore in which they are interested	37	2.43	1.17	65	3.25	1.09	3.53**
Autonomy	Participate in career development	36	2.42	1.25	65	3.17	1.04	3.24*
Autonomy	Visit future job sites	35	2.20	1.26	64	3.00	1.20	3.13*
Autonomy	Pursue higher education	35	2.29	1.07	64	2.88	1.12	2.54*
Self-Regulation	Problem-solve in a school environment	42	3.21	0.84	64	3.58	0.77	2.29*
Self-Regulation	Problem-solve in their vocational setting	35	2.31	1.21	63	2.9	1.00	2.61*
Self-Regulation	Set and maintain goals	42	3.26	0.89	65	3.74	0.89	2.71*

* $p < .05$, ** $p = .001$, *** $p = .000$

4.8
(Continued)

Self-Determination Characteristic Section	Item	General Education			Special Education			
		<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>
Self-Regulation	Revise plans when goals are not achieved	39	3.03	1.04	65	3.46	0.94	2.21*
Self-Regulation	Make decisions during transition planning.	34	2.79	1.12	64	3.48	0.91	3.30*
Self-Regulation	Advocate for their interests when making post-secondary transitions	32	2.53	1.11	64	3.38	1.03	3.69***
Psychological Empowerment	Have control over their academic endeavors	39	2.79	1.01	65	3.29	0.86	2.68*

* $p < .05$, ** $p = .001$, *** $p = .000$

As shown in Table 4.8, most of the questions where there is a significant difference are from the Autonomy Section of the questionnaire. In all cases, the mean for special education is higher.

Finally, it was found that participants who chose “I am not a chair, faculty member, or program coordinator of a general education or special education teacher preparation program” ($N = 6$) were excluded from data analysis. Since responses of ‘Not Sure’ were identified as missing cases and not included in the ANOVA, a Pearson Chi-Square test was conducted. The Pearson Chi-Square test was conducted and found a significant difference in the frequency of ‘Not Sure’ by special education teacher preparation programs and general education teacher preparation $\chi^2(1, N = 120) = 10.84, p = .001$).

Research Question #2

Do participants from teacher preparation programs located in a state with secondary special education standards for self-determination perceive that their teachers are better prepared to teach Self-Determination to students with disabilities as compared to respondents from teacher preparation programs located in states without secondary special education standards for self-determination?

The means and standard deviations for the four components by type of state are presented in Table 4.9

Table 4.9:
Means and Standard Deviations by Type of State

	Psychological Empowerment	Self-Realization	Autonomy	Self-Regulation
State with Special Education Standard (N = 26)	3.30 (.77)	3.48 (.76)	3.10 (1.01)	3.45 (.74)
State without Special Education Standard (N = 77)	3.01 (.86)	3.07 (.92)	2.69 (.91)	3.06 (.83)

Table 4.10
ANOVA Summary Table for State Standard for Self-Determination

Source	Sum of Squares	df	Mean Square	F	Significance	Partial Eta Squared
Between Subjects						
Group (State Standard vs. No State Standard)	10.810	1	10.819	4.566	.035	.043
Error	239.115	101	2.367			
Within Subjects						
Characteristic	7.234	3	2.411	11.407	.000	.101
Characteristic* Group	0.185	3	.062	.291	.832	.003
Error	64.051	303	.211			

Figure 4.2 – Interaction for Characteristic and State Standard



As shown in Table 4.10, there is a significant main effect for state with a small effect size and a significant main effect for characteristic with a large effect size. The main effect for characteristic is identical to the data shown previously. As shown in Table 4.9, states with special education standards have a significantly higher mean on all components as compared to states without standards.

Research Question #3

Does a participant's position within a university- faculty, department chair or program coordinator- affect the way in which he or she views the presence of self-determination in curriculum?

Analysis was conducted to assess the impact of a participant's appointment at a university. Participants were asked to select their position within the university. The participants could choose from 'Faculty,' 'Department Chair,' 'Program Coordinator,' or 'Other.' Participants were given the option to endorse more than one item. To make the analysis complete, all respondents were placed in one group using the following rules:

- (1) If a respondent indicated only one position, the person was placed in that group.
- (2) If a respondent indicated multiple positions, the respondent was placed in the higher role. Specifically, respondents who indicated faculty and chairperson were considered chairpersons; respondents who indicated program coordinator and chairperson were considered chairpersons. In addition, those respondents who indicated that they were a dean were placed in the chairperson group.

The means and standard deviations for the four components by role are contained in Table 4.11.

Table 4.11:
Means and Standard Deviations by Role

	Psychological Empowerment	Self-Realization	Autonomy	Self-Regulation
Faculty	2.96 (1.05)	2.91 (1.01)	2.61 (.92)	2.98 (.92)
Chairperson	3.31 (.66)	3.48 (.67)	2.93 (.88)	3.39 (.68)
Program Coordinator	2.98 (.79)	3.11 (.93)	2.82 (1.01)	3.10 (.82)

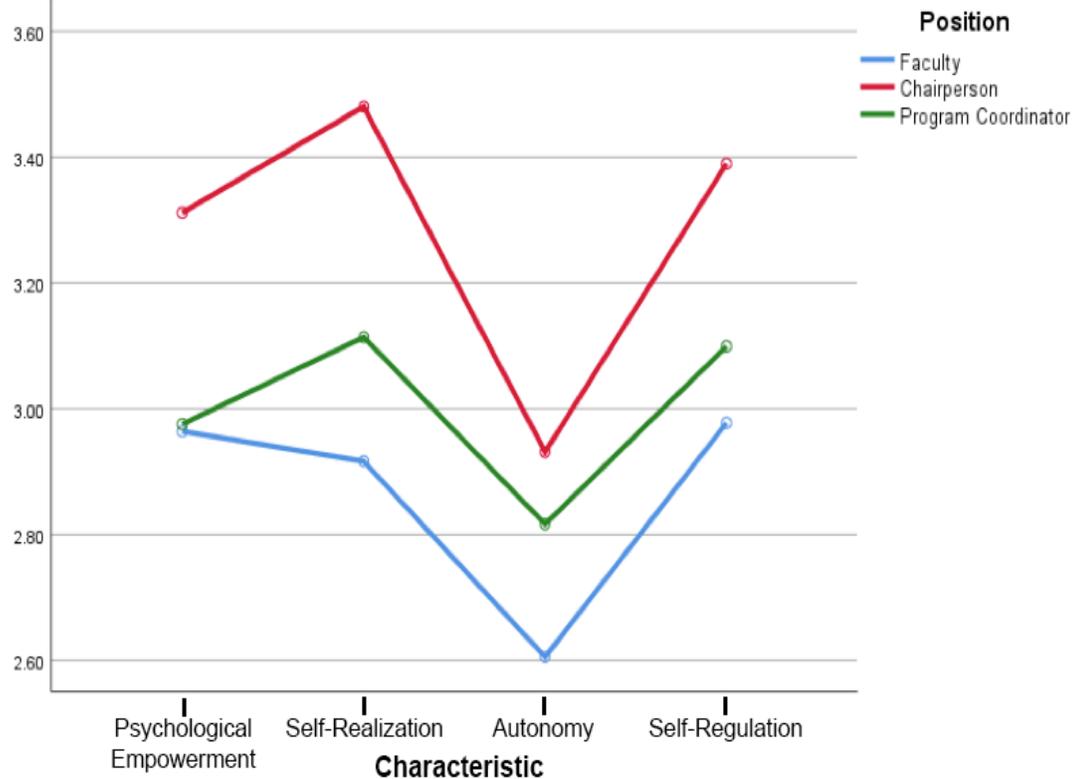
The results of the repeated measures ANOVA are presented in Table 4.12.

Table 4.12
ANOVA Summary Table for Role

Source	Sum of Squares	df	Mean Square	F	Significance	Partial Eta Squared
Between Subjects						
Role	15.248	2	7.624	3.19	.025	.054
Error	238.677	100	2.387			
Within Subjects						
Characteristic	9.771	3	3.257	15.480	.000	.134
Characteristic * Role	1.115	6	.186	.883	.490	.017
Error	63.121	300	.260			

As shown in Table 4.12, there is a significant main effect for role with a medium effect size and, as shown previously, a significant main effect for component with a large effect size. Although the interaction is not significant, the following graph visually displays the results.

Figure 4.3: Characteristic by Role



As shown above, the general pattern is for chairpersons to have the highest mean, followed by program coordinators, followed by faculty. A follow-up analysis on specific means indicated that those identified as a department chair had a significantly higher self-determination score ($M = 3.25, SD = .78$) than those that did not identify as a department chair ($M = 2.91, SD = .78$), $t(121) = -2.22, p = .028$). Additionally, a t-test revealed those participants representing a special education teacher preparation program and identified as a department chair, had a significantly higher SD score ($M = 3.55, SD = .62$) than those representing a special education program that did not identify as a department chair ($M = 3.07, SD = .73$), $t(65) = -2.38, p = .021$.

Additional Analyses

Participants were also asked about the ways in which students are exposed to self-determination in their teacher preparation programs. Table 4.14 identifies the frequency and percentage for each item for participants associated with secondary general education teacher preparation programs. Table 4.15 identifies the frequency and percentage for each item for participants associated with special education teacher preparation programs.

Table 4.13
Frequencies and Percentages For Secondary General Education Teacher Preparation Programs Curriculum

Item	Frequency	Percentage
Coursework	36	67.9%
Field Experiences	33	62.3%
Practicum/Student Teaching	31	58.5%
Mentorship	13	24.5%
Teaching Modules	5	9.4%
Not Sure	12	22.6%
Other	4	7%

Table 4.14
Frequencies and Percentages For Special Education Teacher Preparation Programs Curriculum

Item	Frequency	Percentage
Coursework	62	92.5%
Field Experiences	44	65.7%
Practicum/Student Teaching	46	68.7%
Mentorship	15	22.4%
Teaching Modules	17	25.4%
Not Sure	0	0
Other	3	5%

CHAPTER 5

DISCUSSION

Introduction

Recognizing the need for individuals with disabilities to voice their preferences and desires, the current study aimed to examine the degree to which preservice teachers are being prepared to support their students. The rationale for including self-determination in a teacher preparation program is that the construct could help to develop teachers' awareness of the importance of choice for their students with disabilities. Specifically, the construct of self-determination was explored within secondary general education and special education teacher preparation programs. It was essential to include general education programs in the study because of the increasing number of students with disabilities being educated outside of the special education setting (US Department of Education, 2016).

Moving beyond the existing research inquiring of the presence of self-determination (Thoma et al., 2002), this study sought to identify the prevalence of specific characteristics of self-determination in teacher preparation programs. Wehmeyer (2003) identifies four characteristics of self-determined behavior: Autonomy, Self-Regulation, Psychological Empowerment, and Self-Realization. Utilizing Wehmeyer's (2003) construct, research questions were created. Research question one explores whether respondents perceive that pre-service teachers are prepared to teach self-determination to student with disabilities. The answer to this question may help to identify some of the current objectives of special education and secondary general education self-determination curriculum.

Inclusion has been examined in special education research (Dessementet, Bless, & Morin, 2012; Rojewski, Lee, & Gregg, 2015). Access to the general education classroom is becoming a reality for many students with disabilities (Yell et al., 2008). It was therefore important to include secondary general education teacher preparation programs in this study.

Additional research questions examined participant characteristics that may impact their perceptions of self-determination curriculum. The job title of the participant, as well as the state in which the participant's institution was located was also included in analysis.

To explore these research questions, a survey was distributed via email to chairs and program coordinators of special education and secondary general education teacher preparation programs. The survey was based on the ARC Self-Determination Scale.

Findings

An analysis of the survey results produced findings that answer the proposed research questions. It is important to note that the survey asked participants to rate how prepared their preservice teachers were to implement specific tasks. Their responses are a reflection of how participants view their students preparedness.

The results of the present inquiry add to the limited literature focusing on self-determination and teacher preparation programs. Thoma, Baker, and Saddler (2002) found 54% of special education teacher preparation programs promoted self-determination component skills through their curriculum. The current study furthered these findings by establishing that special education teacher preparation programs also

focused on the characteristics of self-determination. The study's results suggest that special education and secondary general education teacher preparation programs are to some extent including the components of self-determination in their curriculum

Self-Determination Characteristics

Research question one sought to determine the extent that participants perceive that students in their education program are prepared to teach students with disabilities the four characteristics of self-determination: Autonomy, Self-Regulation, Psychological Empowerment, and Self-Realization. In particular the question included two sub-questions: are there significant differences among the means of the four characteristics? Are there differences among the four characteristics in undergraduate special education teacher preparation programs as compared to undergraduate general secondary education teacher preparation programs?

Data analysis identified the mean of each characteristic of self-determination. An interesting finding was the mean of the 'Autonomy' ranking as the lowest of the four subsections for all participants. In the 'Autonomy' section participants rated their university students preparedness to encourage students to 'complete daily living skills,' 'choose friends,' 'determine extra-curricular activities,' 'exercise personal choice without undue influence by parents or teachers,' 'make financial decisions independently,' 'choose careers to explore in which they are interested,' 'participate in career development,' 'visit future job sites,' and 'pursue higher education.'

A potential explanation for the low scores on the 'Autonomy' section could be the content of the characteristic. Four questions in this section relate directly to transition. Participants may feel that these transition services, like visiting job sites or participating

in career development, are the responsibilities of other school personnel. They may think that a guidance counselor, transition coordinator, or IEP team may have greater knowledge of these subjects. Consequently, participants may believe they are not rigorously preparing preservice teachers for these tasks.

The low mean score on the ‘Autonomy’ subsection is surprising as it includes items that are essential to self-determination: those that focus on choice-making and independence. The inclusion of ‘make financial decisions independently’ and ‘pursue higher education’ may have distorted the mean. These two items had the lowest means of all of the items in the subsections when all participants were examined. Both financial decision-making and the discussion of post-secondary education opportunities are part of the transition process for individuals with disabilities. The transition process is a pivotal time in a student’s education and students with disabilities should be offered the appropriate supports. Previous research supports this study’s finding of “pursuing higher education” having one of the lowest means of all items. Upon graduation, students with disabilities are less likely to attend a post-secondary institution compared with their peers without disabilities (Chambers, Rabren, & Dunn, 2009). In particular, students with autism or intellectual disability were found to have significantly less transition goals focused on postsecondary education (Shogren & Plotner, 2012). It is troubling for ‘make financial decisions independently’ and ‘pursue higher education’ to have the lowest means because while more students with disabilities are attending post-secondary education institutions (Newman, Wagner, Cameto, Knokey & Shaver, 2010), students with disabilities are experiencing barriers once enrolled (Denhart 2008). Previous research has also established that career awareness, occupational courses (including

personal finance courses), vocational education, and transition programming were all predictors of improved post secondary outcomes of education and employment (Test, Mazzotti, Mustian, Fowler, Kortering, & Kohler, 2009). It is therefore important to consider including these items in transition goals.

When all participants were analyzed as a group, the ‘Self-Regulation’ characteristic had a significantly higher mean than the ‘Psychological Empowerment’ characteristic. This finding was also true for individuals associated with a special education teacher preparation programs. The self-regulation section contains task-specific items related to problem-solving, goal setting, and self-advocacy. According to participants, they believe preservice teachers are being prepared to utilize strategies with their students to problem solve and become self-advocates. “Problem solve in a school environment” and “set and maintain goals” were the items with the highest means in this section and in the entire survey. This is a promising discovery as teaching self-regulation strategies, like problem solving, to individuals with disabilities has proven to be effective (Glago, Mastropieri, & Scruggs, 2009). The benefits of setting and maintaining goals are also supported by previous studies (Wei, Wagner, Hudson, Yu, & Javitz, 2016).

One possibility for the difference in the ‘Self-Regulation’ and ‘Psychological Empowerment’ sections may be the nature of the characteristics. The items in the self-regulation section can be observed and explicitly taught to students. For example, a teacher can use a strategy to teach goal-setting or problem-solving. The items in the ‘Psychological Empowerment’ may be more difficult to observe and teach. Teaching and encouraging students to be confident and to trust their self-advocacy skills is not a simple task. Participants’ answers on the ‘Self-Regulation’ and ‘Psychological Empowerment’

sections may reflect the differences in the constructs. They may believe that they have prepared their students to implement self-regulation strategies but may feel less confident in the degree in which they prepared their preservice teachers to promote psychological empowerment.

The finding of this current study does not align with some of the previous self-determination literature regarding problem-solving. Thoma, Baker, and Saddler (2002) found problem-solving was the least endorsed of all of the component skills; however, the present study found that the ‘Self-Regulation’ section of the survey, which includes three items asking about problem-solving, had the highest mean of the four subsections for special education teacher preparation programs. A possible explanation for these contradictions may be the 15 year difference between the two studies. Programs may have changed the curriculum within the last 15 years to reflect state standards or trends in special education.

Comparison of Self-Determination Mean

The second finding is the significant difference between the mean self-determination score of special education and secondary general education teacher preparation programs. The total mean, derived from the items in the four characteristics subsections, is intended to represent a program’s adherence to the tenets of self-determination. A significant difference in the scores may denote a difference in pedagogy or perhaps in the program’s teaching objectives.

One explanation for the difference in the means may be special education teachers place a high value on the characteristics of self-determination (Carter, Lane, Pierson, & Stang, 2008; Stang, Carter, Lane, & Pierson, 2009) and therefore special education

teacher preparation programs believe that they sufficiently prepared their preservice teachers. A study that illustrates the importance of self-determination skills in special education is Grskovic and Trzcinka (2012). Grskovic and Trzcinka (2012) asked secondary special education teachers which skills they found important when teaching secondary general education preservice teachers. The secondary special educators rated self-regulation strategies, a component of self-determination, as essential for preservice teachers (Grskovic & Trzcinka, 2012). Other studies found special educators were more familiar with components of self-determination than general education teachers (Cho, Wehmeyer, & Kingston, 2010).

Literature suggests that the value placed on teaching self-determination may be related to the age of the students that the participants interacted with; general education elementary and middle school teachers have reported valuing self-determination (Stang et al., 2009). This study included special education teacher preparation programs with diverse age certifications; some participants endorsed their programs prepared university students to teach students with disabilities from kindergarten through twelfth grade. When these special education preparation programs are compared with participants preparing only secondary general education teachers, the difference in the age of the preservice teachers' future students may have affected the results.

Another possibility of the difference in means may be the focus of the teacher preparation program. Some general education teacher preparation programs focus on content (Lewis, 2008). Special education teacher programs can focus on specific skills, like choice-making and self-advocacy, that may be considered life skills (Thoma, Baker, & Saddler, 2002). Consequently, special education preservice teachers placed more

value on skills (household skills, job skills, social skills) than their secondary general education teacher peers (Dymond, Rosenstein, Renzaglia, Zanton, Slagor, & Kim, 2015). Some of these skills are closely aligned with self-determination. The literature suggests that special educators see the responsibilities of teaching extending beyond the content of the curriculum. The difference in the content of the programs may have affected the scores for each group. Participants' beliefs about the degree in which they are preparing their students may be associated to the importance they place on the construct. Additionally, a general education participant's score could have reflected the belief that preparing their preservice teachers to deliver content, such as mathematics or biology, and not self-determination curriculum is their primary responsibility.

Related to the finding of the difference between special education and general education teacher preparation programs' mean self-determination score is the significant difference in the 'Self-Regulation' and 'Autonomy' scores between secondary general education programs and special education programs. Eight out of nine items in the 'Autonomy' section were found to have significant differences; six out of eight items in the 'Self-Regulation' section were found to have significant differences. Similar to the previous finding, the differences in the participants' perception of the content of the teacher preparation program may have affected this result.

Items in the 'Self-Regulation' and 'Autonomy' section contain themes that may be associated with IEP and transition plan goals. These areas include financial independence, problem-solving, goal setting, transitioning from secondary education, career development, and interpersonal skills. The emphasis on these skills may be an explanation of the difference between special education teacher preparation programs and

secondary general education teacher programs. Participants from special education teacher preparation programs may believe that they are preparing their preservice teachers by spending more time on these areas because they are closely tied to transition plans and IEPs, documents that are integral to special education.

Interestingly, there was only one item in the two remaining characteristic sections, 'Psychological Empowerment' and 'Self-Realization,' that had a significant difference between special education teacher preparation programs and secondary general education teacher preparation programs. Participants representing special education teacher preparation programs had a higher mean on the item: "Have control over their academic endeavors" in the 'Psychological Empowerment' section. This difference may be in part due to the role of the secondary education teacher and special education teacher in a student's education. Special education program participants may feel that students can control their academic endeavors by being active members of their IEP meetings and advocating for their interest when planning for the school year. They may feel that they are preparing their preservice teachers to promote this skill with students. Secondary education teacher preparation participants may have interpreted 'academic endeavor' as a curricular decision. They may have felt that they prepare their preservice teachers to follow standards and deliver content thus leaving students with less control to their academic endeavors.

Also related to this finding was the discovery that participants representing secondary general education teacher preparation programs were more likely to choose "not sure" when responding to the four characteristics subsections. This may also be a result of a preservice special educator's familiarity with a transition plan (Shogren &

Plotner, 2012) in an IEP or the general educators focus on the content of a class and/or a lack of awareness on the part of preservice general education participants.

The difference in the total mean for special education and general secondary education teacher preparation programs may be reduced in the coming years as special education teacher preparation programs and an increasing number of general education programs are calling for an increased focus on collaboration (Brownell, Sindelar, Kiely, & Danielson, 2010; Fullerton, Ruben, McBride, & Bert, 2011; Haager & Vaughn, 2013). Perhaps expanding preservice general education teacher preparation programs to include some of the content of preservice special education curriculum and views of special education faculty could have an effect on the mean self-determination score in the future.

Participant Position in the University

Analysis found that individuals identifying as department chairs had significantly higher self-determination scores than those participants that identified as a program coordinator or faculty. This finding was also true for participants identifying as special education department chairs; their self-determination scores were significantly higher than those who did not identify as a department chair. The reason for this difference is unknown and future research could examine this phenomenon. Two hypotheses could explain this difference. First, department chairs may have a more comprehensive view of their teacher preparation program and therefore could identify more instances when self-determination was present. Compared with other participants, this lens may have increased their self-determination score. The difference in scores may also be a result of social desirability bias; department chairs may want their programs to look as if they are complying with standards and fully preparing their students. Another hypothesis for the

difference in scores may be frequency and depth in which department chairs participate in the actual teacher preparation program. Program coordinators and faculty interact with teacher preparation curriculum daily. They design and deliver curriculum and therefore may interpret the opportunities for preservice teachers to learn about self-determination differently.

Improving Self-Determination in Teacher Preparation Curriculum

An interesting finding was the range of means for the items in the self-determination subsections. The range for all participants on the individual self-determination items was between 2.0 and 3.74. The self-determination score mean for individuals associated with special education teacher programs was 3.20; the self-determination score mean for individuals associated with secondary general education teacher programs was 2.76. On the scale utilized for the self-determination subsections, a two represented 'slightly prepared' and a three represented 'moderately prepared.' The results of the survey show that the preservice teachers attending the programs participating in the survey are being exposed to the construct of self-determination, however; the results also suggest that more can be done. Of all the means calculated, including individual items, subsections, and the entire survey, none represented 'very prepared' or 'extremely well-prepared' students.

One potential way to increase preservice teacher knowledge of self-determination is to increase their exposure through multiple modalities. Both special education and secondary general education programs endorsed 'Coursework,' 92.5% and 67.9% of participants respectively, as the most common way preservice teachers are exposed to self-determination. Perhaps including more self-determination modalities could

generalize the construct. For example, participants reported students are exposed to self-determination during practicum and student teaching. This study found that 68.7% of special education teacher preparation programs had a component of self-determination present during practicum or student teaching; 58.5% of secondary education programs had a component of self-determination in practicum or student teaching. Mentorship opportunities are another way to increase the presence of self-determination in teacher preparation programs. Less than 25% of programs endorsed mentorship as a way to promote self-determination.

Another potential method to increase the presence of self-determination in teacher preparation programs is to make revisions or add to state special education standards. In the current study, participants working at universities located in states with secondary special education standards related to self-determination had significantly higher self-determination scores. The presence of self-determination in the state standards would help to ensure that program coordinators would include the construct in their teacher preparation programs. This is an important finding as it highlights the importance of public policy in education. Advocacy in public policy can be a goal for university teacher preparation programs as well as practicing teachers. By identifying constructs and strategies that are proven effective through research and promoting their inclusion in state standards, teachers and researchers can directly impact education.

Limitations

There are several limitations to this study and therefore careful considerations should be made when generalizing the findings to all special education and secondary general education teacher preparation programs. Primarily, the recruitment of

participants should be contemplated. Participants' institutions were identified utilizing the CAEP accreditation directory. After the institution was identified, university email directories and websites were searched to find the email addresses of the program coordinator or chair of the special education and secondary general education teacher preparation program. The subsequent pool of participants is, therefore, reflective of their institutions membership in CAEP as well as the accessibility of their email address on an institution's website. While the participants are representative of diverse geographic regions, they may not truly represent all teacher preparation programs.

Additionally, the nature of a survey threatens the validity of the study. Since a survey is a form of self-reporting, there is no way to verify the individuals' responses. The responses are subject to the participants' interpretation of the question as well as their ability to recall the components of their teacher preparation program. Participants in the study may also be a threat to external validity because they may have a bias. For example, teacher preparation program coordinators or chairs may have been more likely to complete the survey if they were interested in self-determination or if they believed their program excelled in that area. Conversely, individuals with limited knowledge of self-determination may have been less likely to participate.

Another limitation is in regards to the instrumentation of the study. The survey utilized was developed using the ARC Self-Determination Scale as a guide. Once completed it was reviewed by experts in the field. Even though measures were taken to promote a survey that reflected the characteristics of self-determination, there is the possibility that the survey did not accomplish this goal. An additional concern is the lack of normed data. For example, the scale for this survey asks the participant to rate the

extent to which their students are prepared to teach students with disabilities to complete specific tasks. They can choose 'not sure,' 'not prepared,' 'slightly prepared,' 'moderately prepared,' 'very prepared,' or 'extremely well-prepared.' The definition of 'slightly prepared' or 'moderately prepared' may be different for each participant and therefore the results may not be accurate.

Implications for Practice

The benefits of self-determination for individuals with disabilities are well-documented (Fornes, Rocco, & Rosenberg, 2009; Lachapelle et al., 2005; Shogren et al., 2015). The previous research supports the inclusion of self-determination in teacher preparation program. The current research may have identified some gaps in the presentation of self-determination in teacher preparation programs. In addition to increased self-determination content in preservice special education and secondary general education programs, self-determination content could be presented to both special and general education preservice teachers enrolled in dual-certificate programs and adding to curriculum is important because research has shown that explicitly teaching preservice teachers about self-determination can improve their understanding of the construct (Nevin et al., 2002).

General education teachers have revealed their feelings of under-preparedness in teaching students with disabilities (Burke & Sutherland, 2004; Sadler, 2005). This study has identified an area in which they can increase their knowledge and comfort. In particular, instruction in the characteristics of autonomy and self-regulation would be helpful as these were two areas in which general education preparation programs were significantly lower than special education teacher preparation programs.

Similarly, special education teacher preparation programs could consider revising their self-determination curriculum. This study found that while special education teacher preparation programs are addressing self-determination, they could spend more time preparing their students in the areas of psychological empowerment and autonomy. In addition, this could help improve secondary special educators feelings of underprepared to promote self-determination in their students (Wehmeyer, Argan, & Hughes, 2000).

Finally, university teacher preparation programs could consider presenting the construct of self-determination to a heterogeneous group of preservice teachers. By combining general education preservice teachers from varied content areas with preservice special education teachers, the message might be established that self-determination can be promoted across settings and by multiple practitioners. Preservice teachers can learn to foster the collaboration that they will need to practice throughout their careers.

Future Directions

The current study has established that preservice teachers are to some extent prepared to teach the characteristics of self-determination to their future students. There may be some gaps in the promotion of self-determination and teacher preparation programs could add components to ensure that they are fully covering the construct. Future research can further the findings of this current study. First, research could determine the efficacy of the promotion of self-determination in teacher preparation programs. Additionally, researchers could survey practicing teachers to observe how self-determination is presented to students in secondary settings.

One limitation of the current study is the nature of the design. Since the survey is self-reported, it is unknown how programs are actually presenting self-determination to students. New research focusing on the manner in which self-determination is presented to preservice teachers would be an update to previous work (Thoma et al., 2008; Thoma et al., 2002). A potential research design which observes self-determination curriculum for preservice teachers would add to the literature. Measuring knowledge of self-determination before and after each intervention would help to determine the efficacy of teaching methodology.

Another topic for future research would involve moving the research setting from the university classroom to the secondary education classroom. Once it is established that preservice teachers are learning about self-determination in their university programs, researchers could explore the application of their skills when they begin teaching. Researchers could survey practicing teachers about the value of teaching self-determination to students with disabilities and the methods they employ when teaching the components and characteristics of self-determination to students.

Finally, since some special education teachers found their undergraduate training in self-determination insufficient (Thoma et al., 2002) the creation of professional development for teachers is essential. Researchers could review the self-determination literature to determine ways to teach the components and characteristics of self-determination to teachers. Including secondary general education teachers and special education teachers in this study could help to support students with disabilities in the general education environment.

Conclusion

The promotion of self-determination is essential for individuals with disabilities. As society continues to move away from the restrictions of institutionalization and forward towards community inclusion, self-determination is crucial. Individuals with disabilities should experience the same choice and autonomy as their peers without disabilities. Promoting self-determination is one, but not the only, method to reach this equality. Perhaps the larger goal is not the choice making itself but the emerging view that disability is a limitation imposed by society, not an inherent difference within an individual.

Schools should be the first environment where self-determination should be encouraged. With the promotion of self-determination in schools, individuals with disabilities may begin their education with the belief that they are stakeholders in their education. This is essential because current capacity of self-determination predicts future levels of self-determination (Shogren et al., 2015). Self-determination interventions have also produced desirable effects, both academically and functionally, in school-aged students with disabilities (Erickson et al., 2015; Fowler et al. 2007; Konrad et al., 2007).

Early and frequent opportunities to practice self-determined behaviors will hopefully encourage students to become self-determined adults. Self-determination predicts quality of life and employment in adults (Lachapelle et al., 2005; Shogren et al., 2015) and is positively correlated with independence outcomes (Cobb et al., 2009). The

positive outcomes for adults with disabilities make it imperative to promote self-determination.

This study sought to establish the presence of self-determination in teacher preparation programs because of the benefits for individuals with disabilities. Results show that while preservice teachers are being prepared to promote the characteristics of self-determination, more can be done. In particular, the difference in the preparation of preservice special education and general secondary education teachers shows that there is a gap that could be addressed. More research is needed to address these specific gaps. Additional queries to the specific ways self-determination is being promoted and the efficacy of interventions to teach preservice teachers would enrich the self-determination literature. Research should continue to follow preservice teachers into the classroom when they become practicing teachers.

Self-advocates and leaders in the education field may find the results relating to state standards promising. The significant connections between high self-determination scores and state standards focusing on self-determination for secondary special education highlights the importance of engaging those in leadership positions in the state. To induce change and increase the presentation of self-determination to students with disabilities, it may be helpful to create standards aligned with the tenets of self-determination.

Creating a society where self-determination is promoted and valued for individuals with disabilities, from university classrooms to state education offices, is a goal worth working towards.

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APPENDIX A

SURVEY

1. In which state is your institution located?
2. In what department of program is your academic appointment?
3. In which discipline is your highest degree earned?
 - a. Education
 - b. Special Education
 - c. Higher Education
 - d. Secondary Education – Math
 - e. Secondary Education – Science
 - f. Secondary Education – English
 - g. Secondary Education – Social Studies
 - h. Secondary Education – General Education
 - i. Elementary Education
 - j. Early Childhood Education
 - k. Educational Leadership
 - l. Other (please specify)
4. What is your position within the institution? Please check all that apply.
 - a. Faculty
 - b. Department Chair
 - c. Program Coordinator
 - d. Other (please specify)
5. Which teaching preparation program do you teach in?
 - a. Special Education Elementary
 - b. Special Education Secondary
 - c. Special Education K-12
 - d. Early Childhood/Elementary Education – General Education
 - e. Secondary Education
 - f. Other (please specify)
6. Which certifications does your college offer? Please check all that apply.
 - a. Special Education Elementary
 - b. Special Education Secondary
 - c. Special Education K-12
 - d. Early Childhood/Elementary Education – General Education
 - e. Secondary Education – General Education
 - f. Transition

- g. Not Sure
 - h. Other (please specify)
7. Does your state have a teacher preparation certification standards for secondary special education?
- a. Yes
 - b. No
 - c. Not Sure
8. Does your state teacher preparation standards for secondary special education include a standard related to self-determination for students with disabilities?
- a. Yes
 - b. No
 - c. Not Sure

9. Utilizing the following scale please indicate to what extent students in your teacher education program are prepared to teach students with disabilities to do the following tasks.

Autonomy	Not Sure	Not Prepared	Slightly Prepared	Moderately Prepared	Very Prepared	Extremely Well- Prepared
1. Complete daily living skills	0	1	2	3	4	5
2. Choose friends	0	1	2	3	4	5
3. Determine extra-curricular activities	0	1	2	3	4	5
4. Exercise personal choice without undue influence by parents or teachers	0	1	2	3	4	5
5. Make financial decisions independently	0	1	2	3	4	5
6. Choose careers to explore in which they are interested	0	1	2	3	4	5
7. Participate in career development	0	1	2	3	4	5
8. Visit future job sites	0	1	2	3	4	5
9. Pursue higher education	0	1	2	3	4	5

10. Utilizing the following scale please indicate to what extent students in your teacher education program are prepared to teach students with disabilities to do the following tasks.

Self-Regulation	Not Sure	Not Prepared	Slightly Prepared	Moderately Prepared	Very Prepared	Extremely Well-Prepared
1. Problem-solve in a school environment	0	1	2	3	4	5
2. Problem-solve in a home environment	0	1	2	3	4	5
3. Problem-solve in their vocational setting	0	1	2	3	4	5
4. Set and maintain goals	0	1	2	3	4	5
5. Revise plans when goals are not being achieved	0	1	2	3	4	5
6. Make decisions during transition planning	0	1	2	3	4	5
7. Advocate for their interests when making post-secondary transition decisions	0	1	2	3	4	5

8. Develop interpersonal skills to navigate peer relationships	0	1	2	3	4	5
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11. Utilizing the following scale please indicate to what extent students in your teacher education program are prepared to teach students with disabilities to do the following tasks.

Psychological Empowerment	Not Sure	Not Prepared	Slightly Prepared	Moderately Prepared	Very Prepared	Extremely Well-Prepared
1. Express their opinions even when they do not align with the opinions of others	0	1	2	3	4	5
2. Have confidence in their decision-making	0	1	2	3	4	5
3. Trust their self-advocacy skills	0	1	2	3	4	5
4. Have control over their academic endeavors	0	1	2	3	4	5
5. Foster an attitude of resilience	0	1	2	3	4	5

12. Utilizing the following scale please indicate to what extent students in your teacher education program are prepared to teach students with disabilities to do the following tasks.

Self-Realization						
	Not Sure	Not Prepared	Slightly Prepared	Moderately Prepared	Very Prepared	Extremely Well-Prepared
	0	1	2	3	4	5
1. Be comfortable with their emotions	0	1	2	3	4	5
2. Be confident in their skills	0	1	2	3	4	5
3. Promote self-worth	0	1	2	3	4	5

13. Please choose the statement that most accurately describes your position in your university/college.

- a. I am a chair, faculty member, or program coordinator of a Special Education teacher preparation program.
- b. I am a chair, faculty member, or program coordinator of a General Education teacher preparation program.
- c. I am NOT a chair, faculty member, or program coordinator of a general education or special education teacher preparation program.

14. Rate the importance of teaching about self-determination to preservice special education teachers.

Not at all Important Low Importance Slightly Important Neutral Moderately Important Very Important Extremely Important

15. How is the topic of self-determination presented to your university students? Please check all that apply.

- a. Coursework
- b. Field Experiences
- c. Practicum/Student Teaching
- d. Mentorship
- e. Teaching Modules

- f. Not Sure
- g. Other (please specify).

16. Please provide any additional comments.

17. Rate the importance of teaching about self-determination to preservice secondary education teachers.

Not at all Important	Low Importance	Slightly Important	Neutral	Moderately Important	Very Important	Extremely Important
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18. How is the topic of self-determination presented to your university students?

Please check all that apply.

- a. Coursework
- b. Field Experiences
- c. Practicum/Student Teaching
- d. Mentorship
- e. Teaching Modules
- f. Not Sure
- g. Other (please specify).

19. Please provide any additional comments.

APPENDIX B

EMAIL CORRESPONDENCE

First Email

Title: Dissertation Survey – Complete Survey for a Chance to win %50 Amazon Giftcard

Hello,

I am a doctoral student studying special education at Temple University. My dissertation research is designed to determine the extent to which self-determination is included in the pre-service teacher education curricula of both special education and secondary education.

You have received this email because you are affiliated with a university which prepares special education and/or secondary education teachers. I would very much appreciate your response to this survey. If you feel there is a more appropriate person at your university who can respond to this survey please feel free to forward this email to him/her.

This survey takes approximately 10 minutes to complete and you may exit at any time. You may choose to enter your name into a lottery for a chance to win one of three \$50 Amazon gift cards.

To access the survey please utilize the following link: <https://www.surveymonkey.com/r/SELFDET>

Thank you so very much in helping me with my dissertation research.

Best,
Moira Kirby

Second Email

Title: Complete Survey to win \$50 Amazon Gift Card – Dissertation Survey

Good Afternoon,

I am a doctoral student studying special education at Temple University. Through my research I hope to explore the extent to which self-determination is included in pre-service teacher education curricula.

To examine the curricula of teacher preparation programs, I have created an online survey. The survey takes approximately 10 minutes to complete and you may exit at any time. You may choose to enter your name into a lottery for a chance to win one of three \$50 Amazon gift cards.

To access the survey please utilize the following link: <https://www.surveymonkey.com/r/SELFDET>

Please note, this study was reviewed by the IRB and considered exempt.

Please disregard this message if you have completed the survey; thank you for assisting in my dissertation research.

Best,
Maira Kirby

Third Email

Title: Complete Dissertation Survey to Win \$50 Amazon Gift Card

Good Afternoon,

Please disregard this message if you have completed the survey. I am so very thankful for your assistance in my dissertation research.

As a doctoral student examining self-determination curriculum in teacher preparation, I am interested in your program I would be greatly appreciative if you could utilize the following link to access my survey and tell me more about the experiences of your preservice, undergraduate teachers.

This survey takes approximately 10 minutes to complete and you may exit at any time. You may choose to enter your name into a lottery for a chance to win one of three \$50 Amazon gift cards.

To access the survey please utilize click here: <https://www.surveymonkey.com/r/SELFDET>

Thank you so very much!

Best,
Maira Kirby

Final Email

Title: Last Chance – Assist with Dissertation Research for a Chance to Win a \$50 Amazon Gift Card

Hello,

Please disregard this message if you have completed the survey. I am thankful for your assistance in my dissertation research.

In an effort to understand the process in which preservice teachers are prepared in undergraduate programs, I have designed a survey for universities which prepare secondary and/or special education teachers. Specifically, I am interested in the presence of self-determination in teacher preparation programs.

This survey takes approximately 10 minutes to complete and you may exit at any time. You may choose to enter your name into a lottery for a chance to win one of three \$50 Amazon gift cards.

To access the survey please utilize the following link: <https://www.surveymonkey.com/r/SELFDET>

Please note, this study was reviewed by the IRB and considered exempt.

Best,
Moira Kirby